

PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA  
MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

\*\*\*\*\*

ABOU BEKR BELKAID UNIVERSITY-TLEMCCEN  
FACULTY OF LETTERS AND LANGUAGES  
DEPARTMENT OF ENGLISH

*Language Planning and Education Issues  
in Algerian Higher Studies:  
Attitudes towards Arabic and French  
in Scientific Streams, Tlemcen University*

*Thesis submitted to the Department of English  
in Candidacy for the Degree of Doctorate in Sociolinguistics*

**Presented by**

**Taoufik DJENNANE**

**Supervised by**

**Pr. Zoubir DENDANE**

**Board of Examiners**

Pr. Smail BENMOUSSAT	President	University of Tlemcen
Pr. Zoubir DENDANE	Supervisor	University of Tlemcen
Pr. Samira ABID HOCINE	External Examiner	University of Sidi Belabbes
Dr. Hind MOSTARI	External Examiner	University of Sidi Belabbes
Dr. Ghania OUAHMICHE	External Examiner	University of Oran
Dr. Nouredine MOUHADJER	Internal Examiner	University of Tlemcen

**May 2016**

## *Statement of Originality*

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctorate, is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed: Taoufik DJENNANE

Date: 04/04/2016

# ***Dedication***

*This dissertation is dedicated to:*

*My dear parents and siblings who helped me a great deal in keeping my  
spirits up;*

*My intimate friends: Abdelbasset, Abdelkader, Hamza, Ibrahim,  
Mohammed and Youcef;*

*Dennis, Beth, Kate and Claire Murphy.*

# Acknowledgements

*I owe a special debt of gratitude to my teacher and supervisor, Pr. Z. DENDANE, for his engaging help and constant support.*

*I would also thank members of the jury, namely Pr. Benmoussat, Pr. Abid Hocine, Dr. Ouahmiche, Dr. Mostari and Dr. Mouhadjer for their acceptance to evaluate this dissertation.*

*I would like to express my appreciation to Claire Murphy, Abderrahmane Bassou, Youcef Messaoudi and many other colleagues who contributed in various ways to the completion of this research work, and I apologize for not mentioning them all.*

*I am further indebted to all the scholars and researchers whom I have had the opportunity to profit extensively from their books and articles.*

*Last but not least, I owe gratitude to all the teachers and students, in addition to the administration staff, at the faculty of Biology and Geology at Tlemcen University, who provided me with much-needed feedback contributing enormously in this study.*

## Abstract

This research aimed at measuring students' and teachers' attitudes towards the Arabization of sciences as they are still exclusively taught in French at university level, whereas pre-university education is entirely arabized. The research built on a mixed methods approach to data collection in which classroom observation, semi-structured interviews, and closed-ended questionnaires were used. The analysis of the quantitative and qualitative data indicated that the abrupt switch in the medium of instruction, from Arabic to only-French at the university, is a serious hurdle that negatively affects students' learning attainment. The students are faced with the issue of simultaneous learning of the scientific content and the language through which the content is delivered. As such, the vast majority of them expressed extremely negative attitudes towards French paralleled with positive attitudes towards an Arabic-based instruction. As for teachers, most of them revealed, either implicitly or explicitly, negative attitudes towards the implementation of Arabization in the scientific field. The other crucial finding, which was not intentionally investigated, is that all teachers expressed a need to move towards an English-based education, though they are largely incompetent users of English.

# Table of Contents

<b>Statement of Originality.....</b>	<b>ii</b>
<b>Dedication.....</b>	<b>iii</b>
<b>Acknowledgements.....</b>	<b>iv</b>
<b>Abstract.....</b>	<b>v</b>
<b>Table of Contents.....</b>	<b>vi</b>
<b>List of tables.....</b>	<b>xi</b>
<b>List of Figures.....</b>	<b>xii</b>
<b>List of Acronyms.....</b>	<b>xiii</b>

<b>GENERAL INTRODUCTION.....</b>	<b>1</b>
----------------------------------	----------

## **CHAPTER ONE: Overview of Related Literature**

1.1 Introduction.....	8
1.2 Part I: Basic Concepts in Language Planning.....	8
1.2.1 Towards a Definition of Language Planning.....	8
1.2.2 Language Planning Typology.....	11
1.2.2.1 Status Planning.....	12
1.2.2.2 Corpus Planning.....	14
1.2.2.3 Acquisition Planning.....	17
1.2.2.4 Prestige Planning.....	20
1.2.3 Language Planning Goals.....	21
1.2.4 Actors in Language Planning and Policy.....	27

1.2.4.1	Macro Language Planning.....	27
1.2.4.2	Micro Language Planning.....	28
1.2.5	Overt and Covert Language Planning.....	36
1.3	Part II: Social Psychology-Oriented Research on Language.....	38
1.3.1	Attitudes in Social Psychology.....	38
1.3.2	Language Attitudes.....	44
1.3.2.1	Defining Language Attitudes.....	44
1.3.2.2	Language Attitudes Formation.....	47
1.3.2.3	Language Attitudes Change.....	48
1.3.2.4	The Attitude-Behaviour Relationship.....	53
1.3.2.5	Language Attitude Measurement.....	57
1.3.2.5.1	Content analysis of societal treatment.....	57
1.3.2.5.2	The Direct Approach.....	58
1.3.2.5.3	Indirect Approach.....	59
1.3.2.6	Language attitudes and Language Policy.....	62
1.4	Conclusion.....	64

## **CHAPTER TWO:            Language Planning Issues in Algeria**

2.1	Introduction.....	66
2.2	Language Planning in Algeria: the Policy of Arabization.....	66
2.3	Arabic: Major Language Planning Challenges.....	74
2.3.1	Varieties of Arabic.....	75
2.3.1.1	Classical Arabic.....	75
2.3.1.2	Modern Standard Arabic.....	76

2.3.1.3 Educated Spoken Arabic.....	77
2.3.1.4 Colloquial Arabic.....	78
2.3.2 Arabic: a Diglossic Language.....	78
2.3.3 Diglossia's Implications on Education.....	82
2.3.3.1 What Alternative(s)?.....	87
2.3.3.2 Critique.....	88
2.4.2.3 A Logical Option.....	94
2.3.4 Issues in the Modernisation of Standard Arabic.....	97
2.4 Tamazight in Algeria.....	100
2.4.1 The Amazigh Fight for Recognition.....	102
2.4.2 Corpus Planning Efforts.....	108
2.4.2.1 Grammatication and Lexication.....	108
2.4.2.2 Graphisation.....	110
2.4.3 Tamazight in the School.....	115
2.5 French: A Linguistic Reality in Algeria.....	119
2.6 Conclusion.....	125

### **CHAPTER THREE:           Setting the Methodological Frame**

3.1 Introduction.....	127
3.3 The Research Design.....	127
3.4 The Research Site.....	130
3.5 The subjects.....	132
3.5.1 The Students.....	133



3.5.2 The Teachers.....	134
3.5.3 Classroom Observation Sampling.....	136
3.5.4 Questionnaire Sampling.....	137
3.5.5 Interview Sampling.....	139
3.6 Data Collection Tools.....	140
3.6.1 Classroom Observation.....	143
3.6.2 The Questionnaire.....	148
3.6.2.1 Students' Questionnaire.....	150
3.6.2.2 Teachers' Questionnaire.....	155
3.6.3 The Interviews.....	160
3.6.3.1 Interviewing Students.....	163
3.6.3.2 Interviewing Teachers.....	165
3.7 The Pilot Study.....	168
3.8 Reliability and Validity Considerations.....	171
3.9 Monitoring Ethics.....	173
3.9.1 Informed Consent.....	173
3.9.2 Harm.....	175
3.9.3 Privacy.....	175
3.10 Questionnaires Return Rate.....	176
3.11 Limitations and Delimitations of the Study.....	176
3.12 Conclusion.....	178

## **CHAPTER FOUR: Data Analysis and Discussion**

4.1 Introduction.....	180
4.2 Part One: Learning attainment through the medium of French.....	180
4.2.1 Results and Discussion.....	180
4.2.1.1 Students' competence in French.....	180
4.2.1.2 Learning Difficulties.....	182
4.2.1.3 The impacts of French as MI on quality learning.....	185
4.2.1.3.1 Content Understanding: how much is really learned?.....	186
4.2.1.3.2 Extra reading: How much is comprehended?.....	189
4.2.1.3.3 Participation: does the MI limit students' role in the classroom?.....	192
4.2.1.3.4 Examination: How may French impact performance in examinations?..	197
4.2.2 Data Interpretation.....	202
4.3 Part Two: Students' Attitudes towards the Arabization of Sciences.....	207
4.3.1 The Questionnaire Results.....	207
4.3.2 The Interview Results.....	214
4.3.3 Discussion of the Results.....	219
4.4 Part Three: Teachers' Attitudes towards the Arabization of Sciences.....	227
4.4.1 The Questionnaire Results.....	227
4.4.2 The Interview results.....	237
4.4.3 Discussion of the Teachers' Results.....	242
4.5 Conclusion.....	252

<b>GENERAL CONCLUSION</b> .....	253
<b>BIBLIOGRAPHY</b> .....	262
<b>APPENDICES OF THE THE STUDY</b> .....	290
Appendix A: Language Laws.....	291
Appendix B: Students' Questionnaire.....	294
Appendix C: Teachers' Questionnaire.....	302
Appendix D: Classroom Observation Results.....	310

# List of Tables

Table 1.1	Haugen's (1983:) Revised model of language planning.....	16
Table 1.2	A Framework for Language Planning Goals (Kaplan & Baldaf, 2003).....	26
Table 2.1	Statistics about Tamazight teachers (adapted from Dourari, 2011b).....	116
Table 3.1	Faculties of Tlemcen University.....	131
Table 3.2	Registered First Year Students for the University Year 2014-2015.....	133
Table 3.3	Students Questionnaire Sample.....	137
Table 3.4	Data Collection Tools with Regard to the Related Research Question.....	141
Table 4.1	Students' self-evaluation of proficiency in French.....	180
Table 4.2	Teachers' evaluation of students' proficiency in French.....	181
Table 4.3	Teachers' perception of French as MI.....	184
Table 4.4	Teachers' conceptualization of students learning performance.....	184
Table 4.5	The extent of content understanding.....	186
Table 4.6	Classroom observation results.....	193
Table 4.7	First semester exam results for the academic year 2014-2015.....	200
Table 4.8	Comparing the time and effort to perform academic tasks.....	208
Table 4.9	Expected Outcomes of Using Arabic as MI.....	208
Table 4.10	Students' attitudes towards the implementation of Arabization.....	210
Table 4.11	Students' attitudes towards French.....	213
Table 4.12	Expected outcomes of Using Arabic as MI.....	228
Table 4.13:	Frequency table of expected outcomes out of using Arabic as MI.....	229
Table 4.14	Teachers' Ability to teach in Arabic.....	230
Table 4.15	Teachers' attitudes towards the implementation of Arabization.....	232
Table 4.16	Teachers' attitudes towards French.....	235

# List of Figures

Fig. 2.1 Characterization of Diglossia in Algeria.....	80
Fig. 3.1 The Research Design.....	129
Fig. 4.1 Students' ranking of learning difficulties.....	182
Fig. 4.2 Students' degree of reading comprehension of scientific material in French.....	190
Fig. 4.3 Students' verbal participation during classes.....	194
Fig. 4.4 The degree of difficulty to compose in French.....	200
Fig 4.5 Teachers' attitudes towards Arabization under the availability of basic requirements .....	233

# List of Acronyms

AA:	Algerian Arabic
AAAS	(American Association for the Advancement of Science)
BICS:	Basic Interpersonal Communication Skills
CA:	Classical Arabic
CALP:	Cognitive Academic Language Proficiency
DA:	Dialectal Arabic
ESA:	Educated Spoken Arabic
H:	High Variety
HCA:	Haut Commissariat à l'Amazighité
IRCAM :	Institut Royal de la Culture Amazighe
L:	Low Variety
L1:	First Language
L2:	Second Language
LiEP:	Language-in-Education Policy
LP:	Language Planning
LPP:	Language Planning and Policy
LWC:	Language of Wider Communication
MGT:	Matched-guise Technique
MI:	Medium of Instruction
MSA:	Modern Standard Arabic
SA:	Standard Arabic

# General Introduction

*Language is the fundamental institution of society.  
To plan language is to plan society.* (Cooper 1989:182)

Language planning and policy (LPP) is a meeting ground where linguistics intersects with a variety of disciplines, including anthropology, ethnography, politics, sociology, etc. Not only are newly independent or developing countries concerned with LPP, but even those well-established developed states may also be required to revise their linguistic policies. Engaging in the practice of LPP may target pure linguistic ends, as it may be motivated by non-linguistic objectives. Independence waves, ethnic conflicts, societal multilingualism, mass immigration, high numbers of war refugees, nationalism ideologies, rise of minority communities' activism, high rates of illiteracy, school dropout, international integration, etc are all strong factors that may urge a nation state to engage in LPP activities.

The present research examines the language education policy in Algeria with focus on the medium of instruction (MI) in the Algerian school. After the implementation of a steady, slow Arabization policy since the early years of independence, Standard Arabic could progressively replace French and has eventually become the exclusive medium of instruction in the pre-university stage since the late 1980s; French is now no other than a subject of instruction, officially regarded as a foreign language. But the eye-catching feature is that higher education remains linguistically divided with some fields offered in Arabic (e.g. humanities, economics, etc) and others basically taught in French (technology and sciences). Such state of affairs is the main incentive behind the conduct of this research which is driven by a general question: Is it feasible to generalize Arabization at the university level? This builds on the reality that within this current fragmented linguistic policy science and technology learners are required to cope with the sudden switch in the medium of instruction if they wish to further their higher

studies in such fields. In order to answer the above-raised problematic, three research questions have been formulated, as sketched below:

1. Does the abrupt switch in the medium of instruction, from Arabic to French, seriously impede efficient learning of scientific content?
2. What attitudes do students have towards such sudden switch in the medium of instruction? And what attitudes do they have towards the Arabization of sciences?
3. What attitudes do teachers have towards the Arabization of sciences?

The hypotheses suggested for such research questions are ordered as follows:

1. Since there is a sudden switch in the language of instruction, French is a real hurdle that negatively affects students' academic attainment for they have to cope concurrently with the foreign language and content learning. The null hypothesis can be formulated this way:

$H_0$  : Since students are introduced to French (as a subject) since primary school, and because French is widely used in the Algerian society, the switch to French as a medium of instruction does not pose any burden on content learning.

2. Although the switch to French may impact the learning process, students still show positive attitudes towards French as it is a language of wider communication (LWC).

3. The teacher's pre-university linguistic educational background is a determinant factor of their attitudes towards the Arabization of sciences. To put it another way, the Arabisant (Arabic-educated) teachers approve of Arabization as they can teach in Arabic, whereas the Francisant (French-educated) teachers expose negative attitudes towards the Arabization of sciences as they may find it extremely difficult (if not impossible) to deliver lectures in Standard Arabic.



The research questions make it obvious that the focal point draws on the possibility to arabize scientific fields in higher education. The research does not go the other way round, i.e., restoring bilingual education in the pre-university stage. This is guided by a variety of reasons; some of which are listed below:

✓ Arabic remains (at least explicitly) politically supported. After generalizing Arabic in the pre-university stage, any attempt to replace/limit its role in the school will indisputably involve a socio-political counter reaction. In fact return to bilingual education is a matter of hot debate. Also, a step of such a kind might be interpreted as a failure of the regime's prolonged endeavour to arabize the school.

✓ High academic attainment can best be met through the mother tongue medium. Although *Standard Arabic* is not the genuine mother tongue (H variety), it is the language that learners have been used to since the first day at school.

✓ Some Arab States, such as Syria and Jordan, have been able to successfully arabize sciences and technology fields.

✓ The majority of current Algerian secondary school leavers (Baccalaureate holders) have moderate to weak control over French. Arabizing the university eases the learning of content subjects.

✓ In the near future, the teaching staff in the university will count many teachers who can use Arabic to deliver lectures with less challenge compared to their French-educated counterparts. In other words, future recruits belong to the (pre-university) arabized generation.

✓ Students in departments where education is offered in Arabic outnumber students in departments which use French to deliver content subjects. This provides an indication that the medium of instruction might be a determinant factor in university orientation.

✓ Science and technology departments, in which instruction is done via French, mark the high rate of failure among first year students. Many of these students usually choose to change the field of study, and their choice most often falls on arabized departments.

✓ Although French is still the language of instruction in medical, scientific and technical institutions of higher education, such institutions remain unable to produce highly qualified professionals. In other words, Algerian graduates continue to lag behind the international standards (this does not necessarily mean that the situation is better in arabized disciplines).

In fact, a political decision to arabize entirely the university is likely to take place. This basically depends on the ideology of the one who is in power. We can back such a claim by the law of January 1991 (N 91-5), and which set July 5<sup>th</sup> 2000 as the date for generalizing Arabic in education, including the university. This law was passed during the presidential term of Chadli, a president whose support for Arabization is unquestionable. After his resignation in 1992, which coincided with an internal conflict, the Francophone/Francophile clan took control over the country. Hence, such a law was made on hold. The election of a pro-Arabization president (Zeroual) reinstated the law on December 21<sup>st</sup> 1996. As a result, scientific and technological institutions of higher education were partially arabized to the extent that arabized sections paralleled French sections in some institutions. Since the advent of president Bouteflika in 1999, the law has been on the back burner.

Because accelerating Arabization or, in turn, restoring bilingual education build (to a great extent) on the ideological orientation of future decision-makers, there is a pressing need to provide adequate field work and sociolinguistic surveys before the implementation stage. One area which should be covered beforehand relates to language attitudes. In fact, it has been demonstrated that language policy and language attitudes are often mingled and success or malfunction, if not failure, of the language policy depend (at least partially) on the attitudes of the community towards the language policy (e.g. Baker, 1992, 2006; Lewis, 1981; Schiffman, 1997).

Being convinced that political jurisprudence (macro planning) must take account of those who are likely to be affected, the present research is socio-psychologically oriented as it draws on the attitudes of those who are concerned with the Arabization of sciences at the university level, i.e., students and teachers alike. In other words, the aim is to investigate whether Arabization of sciences would meet the *needs* and *desires* of people, or it would only serve political agendas. Although attitudes of both teachers and learners will be measured and given equal importance, focus will be more on teachers' attitudes as the policy implementation bets on them. Also, it has been proved that teachers are strong actors in the overall language education policy: they do not always have an *implementer-role*, but they can be rather *policy-makers* (Ricento and Hornberger, 1996; Baldauf, 2006). As such, the research attempts to investigate, along attitudes, the teachers' ability to deliver lectures in Arabic. This is motivated by the reality that without linguistically-competent teachers, Arabization would be doomed to failure, even if top-down legislations would impose it on the community of teachers.

As for the organization of the research work, four chapters make up the construct of this thesis. Chapter one goes around the relevant literature and sets the explanatory frame of other chapters. It is, in turn, made up of two subsections, with the first one sketching a number of key-concepts about language planning (types, goals, actors, etc) and the second subsection providing a general overview of the concept of *attitude* from a linguistic perspective, i.e. language attitudes. It outlines basic notions about (language) attitude formation, change, measurement and the attitude-behaviour relationship. It ends up with the importance of language attitudes in the pursuit of language planning, i.e., LPP from a social psychology standpoint.

The second chapter discusses the language situation in Algeria. The linguistic policy of Arabization is reviewed from a broad perspective. The three main languages, namely Arabic, Berber and French are discussed separately. The fact that the Algerian society is characterized with Arabic diglossia, focus is put on

the repercussions on academic attainment due to the use of the H variety in schools. Here, we provide a variety of options to get around the diglossic issue and, subsequently, to rationalize the negative impacts on quality education. Whether to promote Dialectal Arabic (the genuine mother tongue) in schools or to go the other way round, i.e., increasing the use of Standard Arabic in L contexts, will be discussed on linguistic, political, psychological and sociological bases. As for Berber, we attempt to shed light on a recent policy vis-à-vis this minority language. The aim is simply to report what has been achieved, after a protracted struggle for recognition, in terms of status, corpus and acquisition planning. As far as French is concerned, the chapter demonstrates that this *de jure* foreign language is a *de facto* second language which remains omnipresent in a variety of domains, mostly including prestigious ones.

Chapter three is about the methodology followed in the conduct of the case in point. It therefore summarizes the overall methodology approach in terms of the study design, sample population, research site, and types of data (qualitative and quantitative). It also sketches the techniques used for data elicitation. The *direct approach* to language attitudes measurement is favoured over other approaches for a variety of reasons. Such approach builds on mixed methods to collect sufficient data, and allows cross-verification of the findings and therefore renders generalisability of the results a possible option.

As to the fourth chapter, it is meant to analyze, discuss and interpret the quantitative and qualitative data collected through the research instruments. Statistical methods are used so as to boost the validity of the findings. Of course, this chapter is intended to answer the research questions raised above, and to validate, or nullify, the associated hypotheses that have been put forward.

## **CHAPTER ONE**

## **Overview of Related Literature**

### 1.1 Introduction

### 1.2 Part I: Basic Concepts in Language Planning

#### 1.2.1 Towards a Definition of Language Planning

#### 1.2.2 Language Planning Typology

##### 1.2.2.1 Status Planning

##### 1.2.2.2 Corpus Planning

##### 1.2.2.3 Acquisition Planning

##### 1.2.2.4 Prestige Planning

#### 1.2.3 Language Planning Goals

#### 1.2.4 Actors in Language Planning and Policy

##### 1.2.4.1 Macro Language Planning

##### 1.2.4.2 Micro Language Planning

#### 1.2.5 Overt and Covert Language Planning

### 1.3 Part II: Social Psychology-Oriented Research on Language

#### 1.3.1 Attitudes in Social Psychology

#### 1.3.2 Language Attitudes

##### 1.3.2.1 Defining Language Attitudes

##### 1.3.2.2 Language Attitudes Formation

##### 1.3.2.3 Language Attitudes Change

##### 1.3.2.4 The Attitude-Behaviour Relationship

##### 1.3.2.5 Language Attitude Measurement

###### 1.3.2.5.1 Content analysis of societal treatment

###### 1.3.2.5.2 The Direct Approach

###### 1.3.2.5.3 Indirect Approach

##### 1.3.2.6 Language attitudes and Language Policy

### 1.4 Conclusion

## **1.1 Introduction**

With the emergence of sociolinguistics as a reaction against *asocial* (formal) linguistics in which language is seen as a mental possession existing independently from society, it has become an established fact that language cannot be adequately studied in a vacuum, deprived from the social context in which it is basically learned and used. Therefore, (socio)linguists agree that language does influence society and, in turn, society shapes language use. Language planning and policy-LPP for short-, a field of applied sociolinguistics, is a discipline which agreeably reflects this bidirectional interrelationship between language and the social context where it is used.

The end of this chapter is to provide a brief overview of the relevant literature. It is divided into two broad parts. The first one sketches basic concepts in the field of LPP and serves as the theoretical foundation on which chapter two and, to a lesser extent, chapter four (case study) are built. However, the second one is meant to circle key areas in language attitudes which are of importance to the case study.

## **1.2 Part I: Basic Concepts in Language Planning**

This part, as stated above, is not comprehensive but rather selective in that only some key concepts are briefly reviewed.

### **1.2.1 Towards a Definition of Language Planning**

Since the emergence of language planning (henceforth LP) as a research topic in the 1960s, there has been “no prospect for a unified theory of LPP” (Ricento & Hornberger, 1996: 402). The reason is due to, as Ricento (2006b) explains, the complexity of the issues which involve language in society; “after all, LP 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” (p.11). LPP is of a manifold nature as it draws from a variety of disciplines, including linguistics, anthropology, sociology, social

psychology and of course political sciences. This fact of being the intersection of many disciplines justifies the diversity of the many and different definitions that have been brought forth by various researchers to account for the term ‘language planning’. It remains challenging to state one single clear-cut definition.

According to the Estonian-Swedish scholar, Valter Tauli (1968), the theory of language planning (TLP) is a science which methodically investigates the ends, principles, methods and tactics of language planning (henceforth LP) and thus:

LP is the methodical activity of regulating and improving existing languages or creating new common regional, national or international languages. LP comprises all spheres of the oral and written form of the language: phonology, morphology, syntax, lexicology (vocabulary) and orthography. (p. 27)

The American sociologist of language, Joshua Fishman (1974:79), broadly defines language planning as “the organised pursuit of solutions to language problems”. In Cooper’s (1989:98) framework which is organised around the question of “What *actors* attempt to influence what *behaviors* of which *people* for what *ends* under what *conditions* by what *means* through what *decision-making process* with what *effect*?”, Cooper sees language planning as “deliberate efforts to influence the behavior of others with respect to the acquisition, structure, or functional allocation of their codes” (p.45). In fact, Cooper’s conceptualization of LP is one of the most often cited definitions. For Tollefson (1991:8), Cooper summarized the state of LP as a descriptive endeavour, but he also clearly enunciated the need for a theory of language planning that locates the field with social theory.

The literature on LP exposes a wide use of two interrelated terms: language planning’ and ‘language policy’. Some writers make a clear distinction between the two labels; others (e.g. Spolsky and Shohamy, 2000:2) consider the distinction irrelevant, and still others use the two labels interchangeably (e.g. Webb, 2002). This has caused difficulties and has sometimes blinded people in literature searches.

Linguists who stress a neat separation between the two terminological labels (e.g. Ager, 2001; Baldauf, 1994; Schiffman, 1998) proclaim that language planning refers to “the ways in which organised communities, united by religious, ethnic or political ties, consciously attempt to influence the language(s) their members use, the languages used in education, or the ways in which academics, publishers or journalists make the language change. Language policy is official planning, carried out by those in political authority, and has clear similarities with any other form of public policy” (Ager, 2001:5). Likewise, Baldauf (2006:149) sees that the outwardly most common perception of language policy is that it is a set of rules, principles, decisions, regulations, laws, and practices intending to introduce some linguistic change in a given community, whereas planning is understood as implementation of the above, that is as a set of concrete strategies and actions that are to be undertaken so as to realize the policy. Tollefson (1991) summarizes the difference this way:

The commonly accepted definition of language planning is that it refers to all conscious efforts to affect the structure or function of language varieties. These efforts may involve creation of orthographies, standardization and modernization programmes, or allocation of functions to particular languages within multilingual societies. The commonly accepted definition of language policy is that it is language planning by governments. (Tollefson, 1991:16)

Bradley (2012), for instance, when commenting about Kloss’ (1969) categorization of status planning and corpus planning, associates status planning with language policy and corpus planning with language planning.

Not only is the difference between the two processes addressed, but also the policy-planning relationship is also of a murky nature. There is a lack of agreement on the exact link between the two concepts which is why definitions and conceptions of language planning tend to vary considerably in scope and precision. If the two processes are different though interrelated, the intricacy lies in the question of which activity subsumes the other. On the one hand, one may argue that policy is the output of planning. This is made on the basis that to the extent that policies are deliberately and consciously created, they usually involve some form of



planning (Herriman & Burnaby, 1996). However, this is not a fact which always stands as “a great deal of language policy-making goes on in a haphazard or uncoordinated way, far removed from the language planning ideal” (Fettes, 1997:14). On the other hand, is planning the intended outcome of policy? Not inevitably- language planning is first and foremost about social change (Cooper, 1989; Tollefson, 1991). Due to the debate on which process subsumes the other, “[s]uch a field would be better described as “language policy and planning”, LPP” (Fettes, 1997:14).<sup>1</sup>

Although the term *language planning* is remarkably popularized in the literature, some researchers favour other terms (see Cooper 1989 for a number of terms). Jernudd and Neustupny (1986) have proposed *language management*. When talking about efforts to manipulate the language situation, Spolsky (2004), for instance, uses the term *language management* admitting that he “prefer[s] this term to planning, engineering or treatment” (p.8). Spolsky (2009) defines language management as "conscious and explicit efforts by language managers to control [language] choices" (p.1) and as "the explicit and observable effort by someone or some group that has or claims authority over the participants in the domain to modify their practices or beliefs" (p.4).

### **1.2.2 Language Planning Typology**

Language planning is often discussed in terms of four separate, yet interrelated, types or dimensions. These are: status planning, corpus planning, acquisition planning, and prestige planning. Let us start first with the two traditional dimensions.

---

<sup>1</sup> Throughout this thesis, ‘language planning’ and ‘language policy’, and even their combination ‘language planning and policy’ (LPP for short) will be interchangeably used regardless of the difference between the two processes to avoid such terminological conundrum.

### 1.2.2.1 Status Planning

Although researchers in the field of LP attribute the first use of the term ‘language planning’ to Haugen (1959), they also see that the two foci of language planning (status-/corpus planning) were originally used by Kloss (1969). Status planning<sup>2</sup> portrays those efforts aiming at influencing the function of a defined language variety (or varieties) in a given speech community; of course, this variety can be a standard language or a (privileged) dialect. To say it another way, such activity is not concerned with the language system, which is the focus area of corpus planning, “but rather with its standing with respect to other languages or to the language needs of a national government” (Cobarrubia, 1983: 42).

Though linguists may be consulted, status allocation is largely a task of governments and authorities. As such, status planning usually takes the form of top-down political laws specifying which languages are required/permitted in certain contexts.

Bamgbose (1991:109) lists the activities and objectives of status planning as;

1. Maintenance, expansion or restriction in the range of uses of a language for particular functions.
2. Language standardization which involves the development of a given dialect or an amalgam of dialects as a norm for the language in question.
3. Revival of a dead language (e.g. Maori in New Zealand).
4. Introduction of an artificial language.

It is obvious that the above listed activities necessitate the involvement of a body with political authority, such as the government which has the necessary resources, including financial resources.

---

<sup>2</sup> Although the term *status planning* is widely used in the literature, it does not receive an absolute acceptance among linguists. Rubin (1979) uses *allocation of use*; Fishman (1980) and Cobarrubias (1983) prefer *allocation of function* instead of status planning.

Kloss (1968:70) suggests four criteria to classify the status of a language in a political entity:

1. the origin of the language used for national government purposes (indigenous or imported);
2. the developmental stage of a language, i.e. degree of standardization ;
3. the judicial constellation of the language used (official, regional, etc);
4. the numerical strength (number of speakers a language has)

Ferguson (1971c) categorizes language in a community as “major” (e.g. number of users above 25% of the total population), “minor” (e.g. number of users is under 1/4 of the total population) or a “language of a special status” (e.g. religious language typically used in ceremonies).

Tackling the question of language function allocation, Stewart (1968) lists ten functions that can be assigned to a language, and these are: Official, Provincial/Regional, Wider communications (LWC), International, Capital, Group, Educational, School subject, Literary and Religious functions. Of these functions there are those that are basic for the day to day running of government activities. The official, educational and wider communication functions have a strong bias on political considerations in language planning. Discussing the element of education or the medium of instruction, Cooper (1989:109) notes that “[t]he degree to which educational considerations influence the choice of medium varies from case to case, but political consideration always play a role”. It is worthwhile to point out that a consideration of the current world linguistic situation allows us to argue with poise that Stewart’s list blatantly misses an important function that a language may garner, i.e., the *global* function. Stewart was logical in his classification for the simple reason that at that time (i.e., 1968) no language could perfectly fulfill the role of a global language and the highest level that languages could reach was ‘international’. The difference between global and international is of course obvious, with the former concerning the entire globe and the latter restricted to a number (but not all) of countries. In fact, the global function, which is virtually new, falls in favour of English.

### 1.2.2.2 Corpus Planning

Built upon Haugen's (1983) framework, Kaplan and Baldauf (1997:38) see corpus planning "as those aspects of language planning which are primarily linguistic and hence internal to language". When Haugen (1959) first introduced the term 'language planning', he revealed that "[b]y 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" (Haugen, 1959: 8). What is caught in such a definition is that language planning was only perceived as what is now termed 'corpus planning', i.e., a concern with language *form* instead of language *use*.

A momentous distinction between *status planning* and *corpus planning* is explained by Bamgbose (1991) who classifies the activities with regard to the authority that encircles LP processes. Bamgbose (ibid) states that "[m]ost corpus activities are not policy but implementational decisions" (p.110). Thus, one may understand that although corpus planning may also be carried out by government authorities, this work is ideally done by linguistically-sophisticated experts. When planning the corpus of a language, linguists<sup>3</sup> (grammarians, lexicographers, etc) intend " (i) to give the language a terminology for scientific and technical purposes; (ii) to resolve normative/structural questions of correctness, efficiency, and stylistic levels; and/or (iii) to support an ideological cause by eliminating sexist, racist, or militaristic elements in the language" (Clyne, 1992).

It should be noted that despite the tendency to separate *corpus planning* and *status planning* as if they were unrelated due to the fact that each process entails different activities and is conducted by dissimilar *agencies*, the rapport between the two processes could be considered dichotomous. They are usually treated as complementary (Clyne, 1997a:1), but as Fishman (2006) argues, it might be more accurate to express the interaction between the two as a constant "catch-up"

---

<sup>3</sup> Although corpus planning is a linguistic-driven activity, the exception may relate to decisions on an orthographic representation of the language, especially previously unwritten languages. What alphabet to use might be defined by politicians instead of linguists. As one example, the choice of Tifinagh Alphabet to write Tamazight in Morocco was a political decision.

maneuver (Fishman, 2006:315). To show some degree of inseparability between these types of planning, one may consider Fishman's (ibid) notion that there is no point in developing, extending and modernizing language corpora, if they do not achieve the status they were meant for (p. 315-316). Conversely, a language fails to accomplish adequately a function (e.g. medium of instruction or language of legislation) without the corpus permitting it to tackle all the topics pertinent to this status (e.g. unwritten language cannot be used in literacy). The point here is that status usually precedes corpus and a language whose status has been modified, its corpus also needs reconsideration. Cooper (1989) is clear about that when he states that "[i]t is only after a language begins to be used for new functions that corpus planning on behalf of those functions is likely to be effective" (p.184).

In his highly acclaimed fourfold model announced earlier in 1966 and revised later (1983, 1987), Haugen suggests the steps followed by language planners as: selection, codification, implementation (dissemination) and elaboration. Selection and implementation correspond to status planning, whereas codification and elaboration are part of corpus planning as shown below in table 1.1. Although Haugen's model lacks a crucial constituent, that is evaluation-the evaluation of the success of policy and planning decisions, and if necessary changes in their form or implementation (Bradley, 2012)-, this model has proved to be very influential and remains a touchstone upon which numerous studies are built worldwide.<sup>4</sup>

---

<sup>4</sup> Ferguson (1968) suggests another model of language development with three stages: a-graphisation, b- standardization, and c-modernization. Such model is more or less implied in Haugen's model. Graphisation corresponds to Haugen's codification; standardization refers to the choice of a standard variety, and modernization, namely the expansion of vocabulary, conforms to elaboration of function.

Table 1.1 Haugen's (1983: 275) Revised model of language planning

	<i>Form (policy planning)</i>	<i>Function (language cultivation)</i>
Society (status planning)	1. Selection (decision procedures) a. problem identification b. allocation of norms	3. Implementation (educational spread) a. correction procedures b. evaluation
Language (corpus planning)	2. Codification (standardization procedures) a. graphisation b. grammatication c. lexication	4. Elaboration (functional development) a. terminological modernisation b. stylistic development c. internationalisation

According to Haugen, *selection* is the choice of a norm, i.e., selecting a language variety for the purpose of codification. Selection is often biased toward the variety of the powerful (variety of ruling class and/or commercial centres, etc) though it could also be an amalgam of various varieties (Hudson, 1996:33). *Codification* deals with internal language development. Selection and codification will be successful only if they are pursued by implementation and elaboration. *Implementation* usually takes the form of textbooks, pamphlets, newspapers etc, to which language (native and/or foreign) users/learners refer back to master what is agreed on as the 'correct' norm. Thus, it refers to the attempts to spread the codified language variety. *Elaboration* is the expansion of use of the language and its modernisation through additional areas of new vocabulary or new genres of literature so as to meet the needs of modern communication. The selected and then codified variety may be diffused by individuals (e.g. writers) or a government agency (e.g. Ministry of National Education).

Haugen (1983) suggests that codification- prescriptive orthography, grammar and dictionary- comprises three areas: graphisation, grammatication and lexication. For a previously unwritten language, *graphisation* is a central stage in corpus planning, i.e., developing a writing system- ‘developing’ in this sense may mean the selection among the available writing systems or going through the process of devising a new alphabetic representation. However, this is not always an easy task. Agreement on the conventions for spelling and punctuation may generate hot debate among the linguists before the language users.

*Grammatication* refers to the formulation of rules that describe how a language is structured, and prescribe the ways of correct usage. *Lexication* involves the selection and development of an appropriate lexicon. This process concerns “the assignment of styles and spheres of usage for the words of the language” (Haugen, 1983: 271). Lexication also aims at enriching the resources of a language in order to become an appropriate commodity capable of carrying communication, including modern topics and concepts, and outfitted with the terminology required in administration, schools, etc- such a feature is also referred to as *modernisation*. Works of linguistic *purism* and the barring of foreign words are also part of corpus planning. This can be clearly exemplified with reference to, for example, Modern Turkish. Nationalism was “the central pillar of Kemalist ideology” and created a strong “demand for the purification of the Ottoman language by replacing its foreign elements with genuine Turkish words” (Heyd 1954: 19). Therefore, Ottoman Turkish was subject to the purging of Arabic and Persian linguistic elements followed by the creation of a new Turkish lexicon.

### **1.2.2.3 Acquisition Planning**

It was Cooper (1989) who first opted for the inclusion of ‘acquisition planning’ as a third separate category of LPP besides Kloss’ traditional categories of ‘status-’ and ‘corpus planning’. Cooper (ibid) makes it clear that ‘acquisition planning’ is related to, yet distinct from, status planning (within which it had always been included), with this latter concerned with furthering a language’s *use* and the former associated with “the increase of the number of users of a language, that is,

speakers, writers, listeners, or readers” (p.33). To put it another way, status planning regards functions of languages while acquisition planning reflects those “efforts to influence the allocation of users or the distribution of languages, by means of creating or improving opportunity or incentive to learn them, or both” (Hornberger, 1994:78). In its broader sense, acquisition planning encompasses both processes of *natural* acquisition and *conscious* and *deliberate* teaching/learning of language(s), being national or second/foreign languages, in the home, community or education sectors.

In fact, acquisition planning has gained ground as a concept typically related to language teaching/learning in schools which is why Kaplan and Baldauf (1997) favour the term ‘language in education policy’ (LiEP) (language education policy in Spolsky, 2004). However, if one considers the domains where language acquisition may occur, such term, i.e., LiEP, seems quite narrow in its focus due to its direct association with schools. The home, for instance, is also a place where much acquisition takes place. Therefore, ‘acquisition planning’, as a term, is bulky enough to cover all domains where language is acquired/learned.

Given that acquisition planning is directly related to language spread, Spolsky and Shohamy (1999), though they recognize the three categories of LPP, suggest a ‘diffusion policy’ as a sub-category of ‘acquisition planning’. A diffusion policy has as a top end the promoting of a language outside its original borders, using whatever means. This can best be portrayed with considerations of LWC, specifically the pre-dominance of English worldwide, a process which Phillipson (1992) terms ‘linguistic imperialism’. The historic spread of English is the outgrowth of many factors, including (British) colonialism, government activities (e.g. British Council), education institutions, mass media, etc.



Cooper (1989) further singles out three types of acquisition planning with respect to overt goals which are:

i. acquisition of a language as a second or foreign language, such as in the case of Britain and the U.S. that have programmes to teach English specifically to immigrants;

ii. reacquisition of a language by people for whom it was a vernacular as in the case of Maori and Hebrew; and

iii. language maintenance as efforts to stop the death of a language.

The above cited overt goals smooth the progress of language acquisition planning. Other researchers suggest other goals of acquisition planning (cf. section 1.2.3 for goals of LPP).

Traditionally, acquisition planning has been perceived in terms of macro planning, i.e. policy-driven activity initiated by governmental bodies, such as the ministry of education. Now, with the growing interest in micro planning, parents, for example, take share in LiEP via providing contributions on how and in what language their children are taught (Benson, 2004; Heugh, 2002). In fact, LiEP requires coordination between all the players: top-down planning should not ignore *where* implementation takes place and *who* are in charge of implementation (cf. section 1.2.4.2 for how teachers can be influential stakeholders in LPP). Tollefson (2002a), for example, sketches a variety of universal features with regard to language policies in education. Tollefson (ibid) emphasizes the relationship between the school and the community arguing that the school cannot alone influence language development. The community is also vital in establishing a language policy progress. Therefore, language policies in education need to be understood as a complicated interdependent relationship between school, family and community (Tollefson, 2002a: 328).

#### 1.2.2.4 Prestige Planning

In sociolinguistics, the concept of ‘prestige’ reflects the level of esteem and admiration accorded to a language or dialect vis-à-vis other languages or dialects. In language planning, prestige planning<sup>5</sup> refers to a purposeful measurement to manipulate, or more precisely to enhance, the stance of a language in a speech community. This dimension of LP, which remains probably the least covered area in the literature, was introduced by Haarmann (1986; 1990) as a fourth type added to the traditional tripartite of LPP, discussed above.

Although they are closely related, *status planning* and *prestige planning* refer to different procedures. Both dimensions are concerned with the perceived value of a language variety, but they differ in that the former is primarily interested in founding appropriate *functions* for a variety (whether it should be official, regional, religious, etc), while the latter is concerned with establishing a positive *regard* for the variety in the society. This implies that status planning is the output of legislations, whereas prestige planning is derived from people (their attitude), and consequently its aims incorporate intellectualization of language (e.g. language of science), development of language of professions (e.g. language of diplomacy), besides the promotion of language at all levels- governmental, institutional, pressure groups or individuals (Baldauf, 2006). Deumert (2000) sees prestige planning a precondition for status planning in that a language whose status has been modified requires serious endeavour to promote its prestige to receive social approval. About this, Haarmann (1990:105) argues that “[n]ot only the content of planning activities is important but also the acceptance or rejection of planning efforts”.

Prestige planning, or *image planning* as it is also called (Ager, 2001; 2005), has a decisive importance especially for the long-term success of language planning activities when the promoted language has previously been limited to low-culture functions in a given society (Deumert, 2000:387). In many cases, language planning measures do not foster positive *attitudes* toward a particular language. This is

---

<sup>5</sup> The label *prestige planning* does not receive complete approval by linguists. Haarmann (1986:88) himself admits that such a term is vague citing Fishman’s oppositions to it.

frequently met in situations where a multilingual country only superficially seems to promote, for example, minority languages. The predicted result is that people within the country would turn inert recipients of language planning efforts instead of being active agents, and thus the eagerness toward revitalization and/or spread processes would diminish. A representative case may relate to the ex Soviet Union where Russian enjoyed high esteem while other local languages were only apparently promoted (e.g. Fennell, 1981).

Although each dimension of LP is concerned with a particular area and generally involves different planning agencies, in practice they cannot be implemented (for the most part) without overlap. The four dimensions are obviously interconnected and very frequently incorporated together within a larger LPP process. The *status* of a language (variety) is assessed and its social *image* is enhanced; the *corpus* is then developed and adjusted and these modifications are finally injected in society via schools to ensure *acquisition*.

### 1.2.3 Language Planning Goals

Engaging in language planning and policy may target one objective as it may also cover a wide range of objectives. Many scholars have postulated the possible goals for which LPP is conducted but classifications and terms diverge, that no classification can be regarded as final. A set of goals, drawn from various influential works basically including Cooper (1989), Haugen (1983), Hornberger (1994), Kaplan and Baldauf (1997, 2003), and Nahir (1984, 2003), may be summarized in the following order:

#### ❖ Concerned with status planning:

Nahir (1984, 2003) introduces four, out of eleven, language planning goals with accordance to status planning, which are:

✓ Language Revival: the effort to restore a language with few or no surviving native speakers back into a normal means of communication. Hebrew, for example, is a case where revival could be achieved although this process was based on no surviving first speakers.

✓ Language status maintenance: the attempt to preserve the *use* of the native language in situations where the status of the language of a group as a means of communication, a cultural medium, or a symbol of group or national identity is (or is perceived to be) at risk due to political, social, economic, educational or other pressures (Nahir, 1984).

✓ Language spread: spread of *uses* of a language into new domains. In communities where two or more languages coexist, language spread may cause language shift. If more people are learners and users of a language, even a second language, they will ask for more domains in which to use it. Therefore, the previous prevailing language in such domains may gradually perish.

✓ Interlingual communication: facilitating communication between members of different speech communities by a language of wider communication (LWC), whether intranationally (within one country) such as the use of English in India, or internationally (cross-borders) such as Standard Arabic within the Arab World.

In her integrative framework of language planning goals in which she amalgamates the work of major scholars of LPP (Ferguson 1968, Kloss 1968, Stewart 1968, Neustupny 1974, Haugen 1983, Nahir 1984, and Cooper 1989), Hornberger (1994) addresses four basic language planning goals under status planning. These are:

✓ Status standardization: selection and development of a norm. Such norm is usually, and certainly not always, made official or national.

✓ Officialisation: making a language official of a polity. Cooper (1989) identifies three senses under which such a term is employed: *statutory*, a language declared official by law; *working*, a language which a government uses for its everyday activities; and *symbolic*, a language which is designated as a symbol of the state. A language may be official in one, two or all three senses (Cooper, *ibid*).

✓ Nationalisation: a language, which used to be regional or territorial, may start being used nation-wide and being regarded as a component of national identity.

✓ Proscription: banning the use of a given language in some or all spheres, such as in the judiciary.

❖ Articulated around prestige planning, ‘intellectualization’ constitutes a major goal. This refers to efforts to make a language fulfill functions of high prestige. This necessitates fostering its use in the media, literature, professions and more importantly in science (Baldauf, 2005a).

❖ Concerned with corpus planning, the following points, listed by Nahir (2003), represent the core of interest:

✓ Corpus Standardization: selection then promotion of a language variety (generally a politically-favoured dialect) to be the accepted norm throughout a country. Such a process includes three other sub-processes, which are graphisation, grammatication, and lexication (Hangen, 1983);

✓ Auxiliary-code Standardization: standardization of marginal, auxiliary aspects of language such as signs for the deaf, place names, or rules of transliteration and transcription. The same sub-processes followed in corpus standardization are followed here;

✓ Lexical Modernization: word coinage or adaptation;

✓ Stylistic Modernization/Simplification: simplification of language usage in lexicon, grammar, and style;

✓ Language Purification: prescription of usage in order to preserve the *linguistic purity* of a language and protect it from foreign influences. Though borrowing words together with the concepts or objects from where they originate may be a possible option, formal language planning usually favour coining new words using linguistic resources that already exist in a given language since it helps maintain the purity as well as the national character of a language;

✓ Language Reform: modification in specific aspects of language, such as spelling or grammar, in order to facilitate use;

✓ Terminology Unification: arriving at a compromise about unified terminologies to avoid variation which may blind people in the literature search. The problem of terminology unification arises more with continuous innovations in different domains.

❖ Hornberger (1994) matches Nahir's (1984) four status planning goals (revival, maintenance, spread, and interlingual communication) with her equivalent acquisition planning goals, to which she adds the goal of "shift", yielding four matching pairs: (1) revival/reacquisition, (2) status maintenance/acquisition maintenance, (3) spread/shift, and (4) intranational-international communication/second-foreign language literacy. Thus, under acquisition planning, the major goals are described as:

✓ Reacquisition: "Reacquisition of the language by populations for whom it was once either a vernacular- - as in the renativisation of Hebrew [...], or a language of specialized function as in the return of written Chinese to Taiwan" (Cooper, 1989: 159). Successful language reacquisition planning includes, argues Cooper (ibid), giving people both the opportunity and the incentive to reacquire their language.

✓ Acquisition Maintenance: this concept, which different from language status maintenance discussed earlier, refers to the learners themselves: those actually targeted to learn or maintain the language under threat (Hornberger, 1994).

✓ Foreign/Second language Literacy: planning which foreign language(s) will be taught at schools and at which levels. In other words, it refers to the acquisition of competence in intranational and/or international languages by a targeted group of learners. Though foreign language learning usually takes place in formal institutions of education (schools), it may also occur in all six domains listed under Horneberger's (1994) *policy planning* (group, education/school, literature, religion, mass media, work) (Cooper, 1989).

✓ Language Shift: while language spread belongs to status planning and concerns the increase of *uses* of a language, language shift is included under acquisition planning and concerns the shift in learners or *users* from one language to another. In other words, language shift means a process by which a community more or less gradually abandons its original language and via an intermediate shift of bilingualism, adopts another (Trudgill, 2002).

Language planning goals are generally dealt with in terms of ‘policy’ planning goals and ‘cultivation’ planning goals. By policy, Haugen (1983) refers to form, that is the selection of norms. On the other hand, cultivation, a term that Haugen borrows from Neustupny (1970), refers to function, i.e., the implementation of norms. Kaplan and Baldauf (2003) propose a broad set of language planning goals and their categorization, with reference to the different typologies of LPP as shown in table 1.2, sketched below.

Besides acquisition planning goals under *cultivation planning* mentioned earlier, a number of goals under *policy planning* are identified in the below-mentioned table. According to Kaplan and Baldauf (2003), these goals are:

- ✓ Access Policy: policies that have to do with the selection of languages to be studied and of the levels of education at which language will be introduced;
- ✓ Personnel Policy: decisions regarding lecturers: how many and what kinds of people should teach a language, how to employ them, and who should be taught to teach, how, where, and for how long;
- ✓ Curriculum Policy: decisions about lecture: defining what children are taught, in what school, at which level;
- ✓ Methods & Materials Policy: decisions regarding which methods, tools and materials should be used at schools in a country or region, including whether schools or local authorities should be allowed to choose from among a range of options;

Table 1.2 A Framework for Language Planning Goals (Kaplan & Baldauf, 2003: 202)

Approaches <i>Types (overt – covert)</i>	1. Policy Planning (on form) Goals	2. Cultivation Planning (on function) Goals
1. Status Planning  (about society)	<i>Status Standardisation</i>  · Officialisation · Nationalisation · Proscription	<i>Status Planning</i>  Revival · Restoration · Revitalisation · Reversal Maintenance Interlingual communication · International · Intra-national Spread
2. Corpus Planning (about language)  unification	<i>Standardisation</i> Corpus · Graphisation · Grammatication · Lexication Auxiliary Code · Graphisation · Grammatication  · Lexication	<i>Corpus Elaboration</i> Lexical Modernisation Stylistic Modernisation Renovation · Purification · Reform · Stylistic simplification · Terminological  Internationalisation
3. Language-in-Education Planning (about learning)  Language	<i>Policy Development</i> Access Policy Personnel Policy Curriculum Policy  Methods & Materials Policy Resourcing Policy Community Policy Evaluation Policy	<i>Acquisition Planning</i> Reacquisition Maintenance Foreign / Second  Shift
4. Prestige Planning  (about image)	<i>Language Promotion</i>  · Official/Government · Institutional · Pressure group · Individual	<i>Intellectualisation</i>  · Language of Science · Language of Professions · Language of High Culture



- ✓ Resourcing Policy: preparing financial and material resources for teaching a language. For instance, deciding whether handbooks should be free of charge;
- ✓ Community Policy: planning the ways in which communal activities may support acquisition of a language via offering opportunities and incentive for its usage;
- ✓ Evaluation Policy: planning the ways of testing and grading progress (who, where, when, using which methods and materials, etc).

The point that should be raised is that language planning is in many cases conducted to serve “various purposes, only some of which are linguistic” (Pool, 1976: 7). As it has been mentioned elsewhere in this chapter, political, economic, scientific, social, cultural and /or religious factors are the main incentives that push authorities to undertake LPP practices. Pool (ibid) lists a number of non-linguistic goals for which LPP is carried out, including national unity and, conversely, group distinctiveness.

#### **1.2.4 Actors in Language Planning and Policy**

Language planning and policy can be initiated, and then implemented, by different agents and at different scales, namely at macro, meso or micro levels (Kaplan and Baldauf, 1997: 52), as it is discussed below:

##### **1.2.4.1 Macro Language Planning**

Language planning and policy has been largely considered in terms of large-scale, very often national planning, especially during the early years when LPP began to take shape as a field of macro sociolinguistics (Baldauf, 2006) - a reason for which Ricento (2000a) names the first phase of LPP historical development ‘macro sociopolitical processes’, which he sets in time roughly between the 1960s and early 1970s. This first phase of LPP scholarship was characterized by a number of influential works, such as Haugen (1966), Rubin (1971, 1977), Rubin & Jernudd (1971), Fishman (1974), Karam (1974), Fox, (1975), etc. LPP development

coincided with the vast decolonization movements around the world where newly independent countries inherited chaotic linguistic situations. Having been perceived in terms of problem-solving, focus in LPP was on national and government activities relating to language (Ricento, 2000a; Liddicoat & Baldauf, 2008). In other words, LPP was/is chiefly perceived as a government-driven activity, i.e., the major agency charged of LPP initiatives is the legitimate authority (e.g. government) of a particular polity whose concern is to enact legislations that are meant to influence language status, structure and use. This implies that LPP functions in a top-down fashion where political decisions are dictated from the above and implemented at meso/micro levels. Of course, such legislations accord preference to one or more languages and, with respect to the status, languages are labeled ‘major’ or ‘minor’. In such a case, the “agency basically is retained at the macro level, i.e. the fundamental planning is conceptualised and carried out at the macro level with the local taking an implementation role” (Baldauf, 2006:154-155). Understandably, when LPP is conducted at a macro level, it considers only national/central government policies to the exclusion of the planning activities of micro agents, such as individuals.

As for the meso level of LPP, this concerns activities that are more limited in scope and are often aimed at a specific group within society (Kaplan and Baldauf, 1997:240). The meso level includes neither central government activities nor individual groups language initiatives.

#### **1.2.4.2 Micro Language Planning**

Although LPP is largely related to bodies with political authority, evidences that language is also planned at a lower level are ample which is why later works on LPP introduced the term ‘micro planning’. Ricento (2000), for example, views language planning as a subordinate category to language policy, which for research purposes “is concerned not only with official and unofficial acts of governmental and other institutional entities, but also with the historical and cultural processes that have influenced, and continue to influence, societal attitudes and practices with

regard to language use, acquisition and status” (p. 209, footnote 2). This acknowledges that LPP may also be carried out by non/quasi government agencies. All small-scale actors ranging from organizations to the language use of individual people, such as pressure groups, supplementary schools (independent community-led schools), researchers, journalists and charismatic leaders, etc can be agents for LPP (Cooper, 1989; Ricento, 2000; Baldauf, 2006). In this respect, Kaplan and Baldauf (1997: xii) observe that:

language teachers, materials developers, curriculum specialists, information scientists, advertising writers, personnel officers, and other human resource development planners at all levels of the public and private sectors have been asked to engage in micro language planning activities, although they would often not be aware that this is what they were doing.

For Baldauf (2004), micro planning refers “to cases where businesses, institutions, groups or individuals create what can be recognized as a language policy and plan to utilize and develop their language resources”(p. 229); hence, this planning occurs as a reaction to “their own needs, their own ‘language problems’, their own requirement for language management” (ibid). Interest in the micro-level of LPP goes back as early as the 1990s- Ricento’s (2000) third phase. By then, most LPP research has positioned itself within the so-called ‘critical language policy’ (CLP) which picked up its way with Tollefson (1991, 2002) who was inspired by earlier works of Ruiz (1984) and Cooper (1989). Tollefson (1991) draws a division between what he calls *the neo-classical approach* and *the historical-structural approach*. The former is an *apolitical* paradigm and is dominated by a concern in *the individual*; the latter (1) examines the historical basis of policies and shows how policy decisions are tied to political and economic interests, (2) and uncovers the language ideologies underpinning policy decisions (Tollefson, ibid). Within critical language policy, the ecology of languages/language rights approach constitutes the most essential conceptual framework, and the core of research in LPP shifted from traditional orientations and, as Ricento (2000a:208) points out, “The key variable which separates the older, positivistic/technicist approaches from the newer critical/postmodern ones is agency, that is, the role(s) of individuals and

collectivities in the processes of language use, attitudes, and ultimately policies”. It has become evident that the concept of ‘agency’-who the language planners are- is of prominence to LPP contrary to the traditional belief in which the planning agents, which were largely thought of in terms of governmental bodies, “made little difference as long as they had the required expertise” (Baldauf, 2006: 154). LP is more than “polity-generated official documents” (Johnson, 2013: 1); LP “implementation requires much more than a set of top-down decisions” (Kaplan & Baldauf, 1997: 82). LP is rather how individual agents ‘make’ language policy in everyday social practice (Hornberger & Ricento, 1996).

The *raison d’être* beyond this interest in the micro-level of LP is, as put by Cooper (1989), that “the same processes which operate in macro level planning also operate in micro level planning” (p.37-38). Cooper ((*ibid*) was a, if not the, pioneer who regarded small-scale language planning as an essential aspect of LPP research, arguing that the elimination of the context where implementation takes place and micro agents would impoverish the field. His argument is built on Markee’s (1986) equitable comment that “a teacher’s decision to use a particular text-book is just as much a policy-decision as a Ministry of Education’s prescription that English will be taught for X number of hour a week in all secondary schools” (in Cooper, 1989:38). Therefore, it is in no way surprising that the school and the community stand up as major actors involved in the LPP process. In what follows, we provide some examples where micro planning may originate.

Micro planning, as opposed to micro implementation, might be a direct response to perceived inequalities spelled out by the macro planning agency. According to Ricento & Hornberger (1996: 406), language may be exploited as a “mechanism of social control by dominant elites”, but it can also be utilized by individuals themselves as a means of promoting self-determination (Skutnabb-Kangas, 2000). This can be exemplified with reference, for example, to marginalized minority language communities. To put it another way, language revitalization advocates may conduct influential, implicit or explicit, linguistic and political activism in order to preserve, promote and/or diffuse the so-called minor languages. This has been happening in different parts of the world where minorities

are found, including Algeria, Morocco (e.g. Berber reactions to large-scale Arabization policy) Iraq, and Turkey (e.g. Kurds activism), etc.

Additionally, grassroots efforts provide representative instances of bottom-up language planning. Such groups are influential agents in LPP formulation or at least adjustment. Continuous pressure on the part of the *English-Only Movement* in the United States seems to arrive at noteworthy achievements since up to January 2014 some states (28 states) have established English as the official language at the state level; it goes without saying that the USA does not have an (explicit) official language. Also, *the feminist movements* in the U.S. have always fought against sexism in language. Now, non-sexist forms of the language are widely used (e.g. chairperson instead of chairman; Ms instead of Miss or Mrs., etc).

Also, language planning is seen in many times as a process that commences at home and typically within the family unit (e.g. Spolsky, 2004); this is often referred to as *family language policy*. This latter is an area of paramount importance as it sets the frame for child language development (De Houwer, 1999), and provides “a window into parental language ideologies, thus reflecting broader societal attitudes and ideologies about both language(s) and parenting” (King et al, 2008: 907). Language family policy can best be illustrated with regard to bilingual families, especially in cases where the parents belong to different linguistic backgrounds and reside in a community where a third language is in use. As far as *language acquisition policy* is regarded, a wise decision on the part of the parents might be to promote the host community’s language at home; this is to ensure that children can easily have access to various social institutions, not least education. However, sometimes parental language(s) is promoted at home and the host society’s language is delayed on the ground that the outside environment is strong enough to guarantee perfect language acquisition/learning. This implies that other actors have recognizable involvement in the language planning process, such as friends, neighbours, schools, religious organizations like mosques or churches, just to mention a few (see Spolsky, 2004: 46 for a detailed description of such institutions). If the family and the society’s individuals and communities have

strong impact on the child language acquisition/learning, it would be unscientific to neglect the locals in the *making* of LPP.

It is obvious that even in cases where LPP takes place at a macro level, the implementation occurs at micro levels. Therefore, exploring this relationship between the two levels is worth considering. This is usually done with reference to the education sector. Using a variety of examples, Kaplan and Baldauf (2003) show how teachers can be micro implementers (transmitters) of macro decisions. In countries like China, Korea and Vietnam, universal national policies have been constructed with the end to make learners countrywide use common materials and teachers firmly stick to the syllabus, methodology and textbooks created centrally.

However, counter-evidence which nullifies the teacher's *implementer-role* is also copious. Teachers may significantly participate in the diffusion of a given linguistic policy by implementing top-down jurisprudence just as they may seriously hinder, if not backlash against, the macro policy. In this second case, teachers play the role of *policymakers* (micro planning) instead of policy implementers. This can be illustrated with reference to diglossic communities. For example, in most Arabic-speaking countries, Standard Arabic (as an instance of the H variety) is allocated to formal functions, including literacy. Therefore, teachers are required (generally through ministerial decisions) to rely mainly, if not solely, on this superposed form of Arabic to deliver content. Yet, this leaves a lot of teachers caught between blindly following central policy and meeting the needs of young school children who generally have little to no acquaintance with Standard Arabic. Many, if not all, primary school teachers opt for diglossic switching during the first years of formal schooling, i.e. switching back and forth between Standard Arabic and Dialectal Arabic (learners' mother tongue). In fact, this may be the prevailing linguistic practice even when learners advance in their studies; a reason to which many researchers attribute the low control over Standard Arabic.

In fact, many well-known scholars in the field (e.g. Hornberger & Ricento, 1996; Skilton-Sylvester, 2003) have warned against overlooking the role of the most important educational agent, i.e. the classroom teacher as this latter cannot always be a submissive recipient of top-down legislation but is rather a dynamic agent in the LPP process. For Troop (2007), “teachers are inevitably engaged in acts of language planning and policy each day” (p.46); “it is impossible for teachers *not* to engage in LPP” (p.50).

Incongruity between macro legislation and micro implementation, especially within the education system, has been highlighted in numerous studies. Martin (2005a), for example, shows the tension between language policy and language practice with reference to two rural schools in Malaysia. The new state policy required teachers to switch to English in senior schools for mathematics and science. This made the situation highly problematic for teachers whether to obey political instructions or to appropriate them so as to fit their particular micro situation and meet the needs of their students who at least in rural areas found it difficult to cope with only-English instruction. Martin (ibid) reports that even in English classes, teaching only in English would be problematic in those contexts, and other linguistic resources needed to be employed if learning was to occur.

Another example exposing this incompatible relationship between macro planning and micro practice was provided by Li and Baldauf (In Baldauf, 2006). Since 1999 the Chinese Ministry of Education has been introducing a new foreign language policy with the end of moving from a teacher-centred approach toward more communicative and task-based language learning. Even though teachers knew and furthermore agreed with this macro policy, many of them have not yet introduced any changes into their teaching that could be interpreted as implementation of what was decided on at the macro national scale. In fact, “teachers revert to traditional cram methods” (Baldauf, 2006:157).

With reference to bilingual intercultural education (EBI) in Peru, Valdiviezo (2010) discusses how two relevant premises in Peru LPP- *castellanización* and *bilingualism and interculturality*- are adjusted by teachers in Spanish-Quechua bilingual schools. Valdiviezo reveals that though *de jure* EBI policy has left room for bilingualism and interculturality in indigenous language education, teachers' beliefs and practices perpetuate the historical imbalance of power between Spanish and Quechua making *castellanización* an established *de facto* policy.

Stritikus (2003) points out that teacher beliefs, identity, and learning profoundly impact the implementation of language policy. Stritikus defends this on the basis of his detailed examination of a California teacher coped with the English Only Proposition 227. His findings revealed that this teacher, Celia, conformed to the macro-generated policy at the outset. Her submission to the 227 Proposition was mirrored by modifying her bilingual practice in the classroom and following prescriptive curricula. However, as she advanced, and with reexamination of her beliefs about BLE and her own educational past, she changed her linguistic practice resulting in a classroom interaction that was significantly divergent from the strict initial implementation of the top-down policy. This strengthens the claim that teachers are agents of change (McCarty 2002; Omoniyi 2007).

The above-listed examples disclose one significant truth: “the texts are nothing without the human agents who act as interpretive conduits between the language policy levels” (Hornberger & Johnson, 2007:528). Teachers are not always policy-implementers; they can also be policymakers<sup>6</sup>. Rigid implementation in the classroom context does not but depends on the agency of teachers who have the option of firm obedience as they have the power to adjust and/or (re)create policy building on their interpretation of macro provisions. In compliance with this matter, Menken and Garcia (2010) have this to say:

---

<sup>6</sup> Ricento and Hornberger (1996), for instance, insist that although the English Language Teaching (ELT) profession is seemingly distant from theories of language planning, ELT professionals are in fact policy transmitters but can also take for granted the role of policymakers.



At each level of an educational system, from the national ministry or department of education to the classroom, language education policies are interpreted, negotiated, and ultimately (re)constructed in the process of implementation. Both in countries with highly centralized educational systems and those with decentralized systems [...] the policy implementation process is defined by its dynamism; ultimately, a language education policy is as dynamic as the many individuals involved in its creation and implementation. Educators are at the epicenter of this dynamic process, acting on their agency to change the various language education policies they must translate into practice. (p.1)

In sum, Language planning is multi-layered as it involves multiple agents, contexts and processes; these layers form what Ricento and Hornberger (1996) metaphorically refer to as the language policy *onion*. Policies are usually initiated from above, but they may also originate at lower levels and move upwards (Cooper, 1989: 38). Subsequently, macro and micro levels form the edges of a continuum. Central LP is doomed to fail if it ignores where policy implementation normally takes place (micro contexts) and if it does not support micro actors, such as teachers, in the implementation process. Likewise, micro level agents may have little to no chance to succeed if they are not supported at a higher level. One cannot but agree with Baldauf (2006:161) who argues that “macro level influences micro planning and yet macro planning results (or should result) from micro planning”. In his account for the historical development of LPP research up to 2000, Ricento (2000a) points out that LPP has been approached either in top-down fashion or from the bottom-up, and thus has tended to fall short of fully accounting for how micro implementation relates to the macro legislation. Ricento argues that a conceptual framework is required to link the two together; “The development of such a framework will lead us to the next- as yet unnamed- phase of language policy and planning research and scholarship” (Ricento, *ibid*: 209). Hornberger and Johnson (2007) propose the *ethnography of language policy* as a new approach which “combines a focus on structure and agency, the macro and the micro, policy and practice” (Johnson & Ricento, 2013:16). This approach “looks closely at how LP is appropriated by actors in educational institutions and emphasizes the centrality of

teachers' beliefs and practices [...] for understanding the role and possibilities of teachers as agents of change [...] and particularly as policy agents [...] for bottom up transformation of LP" (Valdiviezo, 2013:24).

### 1.2.5 Overt and Covert Language Planning

When engaged in, or considering, LPP in a given social context (large context such as a polity or small scale such as the family), it is essential to take account of all the possible faces that such enterprise takes, i.e. "the way it is put into action" (Baldauf, 2006:147). LPP is usually either overt (explicit) or covert (implicit). The first form of LPP is associated with macro policy, i.e. governmental activity, and is manifested, as the name implies, overtly in official and prescribed documents, including decrees, acts, regulations, education edicts, and so forth. Clear instances of such *de jure* LPP are found in the constitution of a country which usually defines what language(s) should serve the official (or other) functions. For examples, Algeria's constitution (1996 amended in 2002) determines, under article 3, that Arabic is the official language whereas Tamazight is a national language; other languages that are *in practice*, namely French, are referred to as foreign languages. Even state-specific regulations are forms of overt LPP. In Lebanon, a law establishes a number of domains in which French is functional although the national constitution recognizes Arabic as the sole official language of the country. The same fact applies to Italy: next to Italian, State regulations acknowledge a number of minority languages (French, German, Latin, and Slovene) with the status 'co-official' depending of the geographical location. As far as overt LPP is concerned, it is momentous to note that such legislations may or may not be strictly implemented; hence they may result in limited success (Huws, 2006). For instance, teachers may obey ministerial education directive in as much as the way that they may not conform to them (Cf. section 1.2.4.2).

However, language policies are often covert and therefore difficult to define (Spolsky, 2004). ‘Actual’ language policies are in many times left overly unrevealed but rather implicitly implemented. In this vein, Schiffman (2006:112) observes that “Language policy is not only the specific, overt, explicit, *de jure* embodiment of rules in laws or constitutions, but a broader entity, rooted in covert, implicit, grass-roots, unwritten, *de facto* practices that go deep into the culture” (in Makoni, 2013). Forms of covert policies are obvious in what Spolsky (2004) calls “language practices”, such as street signs, school language tests, monolingual health information, etc (Shohamy, 2006).

A representative case of covert language policy may best be exemplified with a consideration of the U.S. linguistic policy. Because the American constitution was meant, in its foundation era, to guarantee basic individual protection of its multinational, multiethnic and hence multilingual citizens, The U.S does not have (explicitly) a national official language at the ‘federal’ level. Even so, English is the *de facto* national language as it is the prime medium for legislation, executive orders, treaties, federal court rulings, and all other official pronouncements. At the central level, high officials of the country, including the president, use English exclusively to deliver political speeches although the domestic intended audience belongs to different linguistic backgrounds with English-speakers only forming a majority. English clearly fulfills official functions though some states have laws providing use for English as well as other (minor) languages, such as English and French which are legally recognized in Louisiana.

Education, where planning is usually made at a ministerial level, constitutes one major area where covert policy is obvious. Again, multi-nationalities countries might arguably be good instances of an illustration of implicit planning if they ignore the regular teaching of immigrant community languages. In France, for example, the teaching of Arabic whose (immigrant) users form a significant portion in the society is not included in the state-school curriculum; priority has instead been given for adjacent European languages (e.g. German, Spanish and English) which are often introduced to young learner either as compulsory or optional subjects of instruction. This may disclose a covert linguistic hierarchy in which

languages that are spoken by less affluent ethnic groups are underrated (Edwards, 2001). Within this line, in a study about immigrant communities languages in the United Kingdom, Lamb (2001) proposes a change in policy arguing that a revised education policy needs to embrace the teaching of both modern foreign languages and community languages; this is of course if a country claims to promote multiculturalism, and hence pluralism which cannot logically be only reserved to minor indigenous languages but must also cover (major) immigrant community languages.

### **1.3 Part II: Social Psychology-Oriented Research on Language**

The study of attitudes constitutes a/the building stone in social psychology. This translates that language attitudes scholarship is central to the social psychology of language. As such, what ensues provides a general overview of a number of theoretical concepts which are of relevance to the case study of this dissertation (i.e., Chapter Four).

#### **1.3.1 Attitudes in Social Psychology**

Social psychology is the genuine discipline in which the concept of *attitude* was first investigated in depth and breadth to the extent that attitude has become, as Allport's sees (1935:798), "probably the most distinctive and indispensable concept in contemporary social psychology" (in Bohner & Wanke, 2002:10-11). Due to this noteworthy interest in attitudes, consensus on a single definition of the concept remains beyond the reach. An essential reason for this is that attitude scholarship branches off in two main, say, contradictory directions: the mentalist vs. the behaviourist.

Allport's (1935) early definition of attitude, which is very often cited in the literature, echoes the mentalist view which considers attitude as "a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (in Banaji & Heiphetz, 2010: 356). By the same token, Eagley & Chaiken, (1993: 1) do not but concur with Allport identifying the attitude as a "psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor". It goes without mentioning that the inclusion of the word 'psychological' in this definition reflects the assumption that an attitude represents one's internal state. Eagley & Chaiken (ibid: 3) proclaim that evaluative responses to an entity (also known as 'attitude object') incorporate, for instance, approval or disapproval, liking or disliking, approach or avoidance and attraction or aversion. Within this mentalist tradition, which is bred by cognitive psychology, an attitude is a mental state which is not directly observable, "but must be inferred from the subject's introspect" (Fishman and Agheyisi, 1970:138). Although the mentalist approach has attracted most scholarly attention, it still receives criticism. If an attitude is an internal mental state, then the researcher cannot directly observe it but must indirectly infer it from behaviour patterns, or depend on the person's reports of what their attitudes are. The point with this is that behaviour may or may not mediate the genuine attitude; self-reports are also of questionable validity (Fasold 1987:147-148).

Contrary to the mentalists, the behaviourists argue that attitudes are to be inferred from responses that people make to a given social situation. In other words, to gauge one's attitudes suffice it to observe his overt behaviours. However, the relationship that holds between attitudes and actual behaviours is controversial among researchers. It is *consistency* between the two elements which is still hotly debated (cf. section 1.3.2.4). Attitudes do not always predict behaviour. In fact, the relationship between the two is of reciprocal causation, being both reason and result of each other (Kim & Hunter, 1993a; Olson & Stone, 2005).

The division between the mentalists and the behaviourists is also manifested in the conceptualization of the *structure* of attitude. Those who hold a behaviourist view consider the attitude of a *unitary* or *unicomponential* structure. In Fishbein's (1966) framework, the *attitude* only corresponds to the *affective* dimension. This is echoed in Fishbein's (1967: 478) definition which states that an attitude is "the amount of affect for or against a psychological object". For Fishbein, *cognition* and *behaviour* (or *action* as it is used in the original framework) are included under *belief*.

On the other hand, the mentalists (e.g. Rosenberg & Hovland, 1960) often give a *tricomponential* analysis of the attitude arguing that it is made up of *affective*, *cognitive* and *behavioural* components (the ABC model). The *affective* component is about evaluation and emotional reactions- a reason to call it also the *emotional* component. It concerns the amount of positive, negative or neutral feelings one has towards the attitude object. Closely related to the affective component is the *cognitive* one (also referred to as *informational*) which involves information or knowledge about the attitude object and *beliefs* about it. Cognition is subject to bias and is sometimes built on stereotypes. The *behavioural* (or *conative*) component involves the individual's tendency to act in a certain way when exposed to an attitude object. According to the mentalist view, an attitude is formed when these three components build upon one another. To put it in a nutshell, as Omdal (1995: 86) simplifies it, "before a person can react consistently to an object, he or she must know something about it and is then able to evaluate the object positively or negatively; this knowledge and these feelings are usually accompanied by behavioral intentions". To exemplify this, we can believe that football is beneficial because it is a kind of team sports in which social relations can be fostered (cognitive), like to play it (affective), and this would guide our behaviour towards it (conative). In this example, the attitude is the by-product of the interconnection between the three components. Yet, it is also accepted that an attitude can be based on one component more than the others. In such a case, the attitude can be affectively-based, cognitively-based or behaviourally-based.

However, it is of paramount importance to call attention that albeit the interconnections which are assumed to hold between these three components, “it is precisely these relationships between the components which are continuously disputed in social psychology” (Münstermann & Van Hout, 1988:174-175). For example, an alpinist knows that climbing a cliff might be fatal (cognitive), but at the same time loves to take the risk (affective). Then, in practice, he may or may not climb it (behavioural). It is obvious that no correspondence holds between the cognitive and the affective elements. In case the alpinist decides to climb the cliff, here also no connection between the cognition and the behaviour is said to hold, but certainly the affective component drives behaviour. If the opposite happens, i.e., a decision not to climb, then it will nullify the link between affective and behaviour elements. Since congruence between the three components is not systematic, behaviourists emphasize the need for a separate analysis of each component. A review of the available literature on the relationship between attitude and the three associated components reveals a mutual causation relationship, being causes and effects of each other. Just like emotions, beliefs and behaviours can form and drive attitudes, they can also be influenced by attitudes (Eagly & Chaiken, 1993; Zanna & Rempel, 1988).

Beyond the behaviourist-mentalist contradictory conceptualization, research on attitudes is made further complicated with the existence of a variety of concepts that are sometimes mingled with the concept of attitude. In the social sciences, terms like *belief*, *opinion*, *stereotype*, *evaluation*, *perception*, *disposition*, *ideology*, *representation*, *value*, *motivation*, *goal*, *social identity* and *habit* are widely used. These concepts are closely related to, yet distinct from, attitudes and each term has distinct dictionary definition (e.g. the Free Dictionary). Yet, they are sometimes used interchangeably with the concept *attitude* in spite of the nuance that differentiates them (recall that the semantic rule emphasizes that no two words are perfect synonyms). As such, the logical explanation is that, as Campbell (1947) observes, these concepts may be denoting the same essential facts; they are said to overlap.

For example, McGuire (1985) sees that distinguishing attitudes from related dispositional variables, such as opinions, often contributes to confusion rather than a clarification of the two constructs. However, the dividing line which is often drawn between *opinion* and *attitude* is that the former is “an overt belief without affective *reaction*” whereas the latter embraces affective reactions (Baker, 1992:14). Stenzenberger (1992: 26) adds that attitudes are more individualistic, whereas opinions are generally held by a social collectivity.

In their examination, Dyers and Abongdia (2010) considered language as an attitude object with the aim to seek the disparities between *attitude* and *ideology*. Their findings assume that ideology is a social product held by groups, whereas attitude is psychological held by individuals. Also, ideology is formed by socio-historical events, while attitude is learned through experiences. They also add that the individual’s attitudes are influenced by the ideology held by the society he exists in because an ideology is “an overarching context within which attitudes are formed and played out” (Dyers & Abongdia, 2010:132). This does not refute the fact that individuals can, on the ground of personal experiences, shape their attitudes by rejecting the overriding societal ideology.

Another distinction concerns *attitude* and *motivation*. Here, two major views exist. The first states that attitude processes can be affected by motivation. It was demonstrated (e.g. Chen & Chaiken, 1999) that this latter can be at the essence of information processing (cognition), and accordingly attitude formation/change (Wood, 2000). The second view takes a different trajectory and strengthens the view that attitudes are causally-linked to motivation. With reference to language learning, many researchers display this precedence relationship which attitudes hold over motivation (Belmechri & Humme, 1998; Dörnyei *et al.*, 2006).

However, the most often discussed distinction relates to *attitude* and *belief*. This latter is associated with cognitive aspects contra attitude which has been attributed affective aspects (see the above-mentioned discussion of attitude structure). Smit (1996: 29) adds that belief is more conscious whereas attitude is often not fully conscious. Fishbein & Azjen’s (1975) *expectancy-value model* (the



cognitive approach) assumes that beliefs held about an object lead to *attitude formation*, and therefore belief is the “building block” of attitude (Eagley and Chaiken, 1993:103) - Attitude formation is part of cognitive processes. In this fashion, positive or negative attitudes build on the attributes or values of the attitude object. Accordingly, analysing attitudes requires an account of people’s many beliefs collectively (Fishbein, 1967). However, this model discounts the role of affect in the formation of attitude (Eagly & Chaiken, 1993). Research has demonstrated that attitudes are not always cognitively-based but they can also be affectively-based. In other words, attitudes may be formed more on people’s feelings and values than on their beliefs. Such affectively-based attitudes generally have a value-expressive function (Aronson *et al.*, 2007). Edwards (2004) posits a view in which attitudes are seen as beliefs intensified by affects. This disagreement between the cognitive and the affective paradigms might be solved when we accept that both approaches refer to different stages of attitude formation and change. Attitudes originate from affectively-based components and they can be changed by cognitively-based processes (Walther & Langer 2008: 88-89). This reinforces the mentalist view which sees belief as one component of attitude instead of a separate component.

Because of such terminological conundrum, the label which will be considered in this thesis is *attitude* with no attempt to draw a division between the different terms. This is due to the fact that the term *language attitude* (our concern in this thesis) is widely used in the literature. In what ensues, the concept of *language attitude* will be approached from a broad perspective. The rationale here is to provide a theoretical frame of the work described in this thesis with focus on the most persistent approaches to language attitude research.

### 1.3.2 Language Attitudes

Research on attitudes took a new drive when it was extended to cover the area of language<sup>7</sup>. Social psychologists were the first to cope with language attitudes during the late 1950s; this coincided with the rise of mentalism as a competing approach to the prevailing behaviourist paradigm. Language turned to be seen as an internal activity and not only a behavioural phenomenon. Labov's and Lambert's works in the 1960s paved the way to language attitude research to grow in depth and breadth over the years (e.g. Giles *et al.* 1987; Bourhis and Maass. 2005). Now, language attitude research figures in a variety of disciplines. It forms an important part of the social psychology of language (e.g. Lambert *et al.* 1960; Ryan & Giles, 1982; Gardner, 1985). It is also widely investigated in the field of education, namely with reference to motivation toward first and second/foreign language learning. Ethnography is another field in which language attitudes are of high concern (e.g. Saviile-Troike, 1989). Also, language attitude has become a major point of interest in sociolinguistic research (Garrett *et al.*, 2003: 2).

#### 1.3.2.1 Defining Language Attitudes

Arriving at a satisfactory definition of language attitudes remains hard. A reason for this is the complex relationship between many concepts: language attitude, language, attitude, and the connection which holds between these concepts and society (Smith, 1996). Another reason relates to the different paradigms in which language attitudes are investigated (mentalism vs. behaviourism). Crystal (1997:215) defines language attitudes as "the feelings people have about their own language or the languages of others". Likewise, Myers-Scotton (2006:109) associates them with "assessments that speakers make about the relative values of a particular language".

---

<sup>7</sup> In this work, attitudes are only considered from a socio-psychological perspective. However, attitudes have also been circled from sociology and anthropology (socially-grounded approaches, e.g. Woolard, 1989)

Language attitudes are not only locked up into language itself but may cover a wide range of topics. Schmied's (1991:164) typology of language attitudes indicates three, partly overlapping, types: attitudes towards certain languages, attitudes towards varieties of a language and attitudes towards sociolinguistic topics. While the first is concerned with regular attitudes and stereotypes, the second is based on the notion of standardization (standard vs. non-standard varieties). The latter type revolves around attitudes towards language uses. Schiffman (1997) provides a seemingly thorough summary of the different types of language attitudes arguing that these can be towards (1) language in general, (2) motivation towards language learning (L1 or L2), (3) towards the status of a language, or the status of its speakers, or the status of some form of the language (H vs. L in diglossic communities), or its use in certain (novel or traditional) domains, (4) towards language shift (within a particular community, or in general), (5) towards loyalty to own language, (6) and attitudes of a minority group about its own non-standard variety.

From these above-listed attitude objects, it becomes clear that 'language attitude' is no other than a cover term under which diverse, yet interconnected, objects are grouped. These language attitude objects may display no unique relationship. In other words, attitudes towards these objects might be equal, partly matching, if not even related. To put it another way, positive attitudes towards a language may coexist with negative attitudes towards the use of this language in certain domains. Also, bearing positive attitudes towards a language may coexist with bearing negative attitudes towards learning it; the contrary is also feasible (Edwards, 1985). Also, attitudes towards an object may result from attitudes towards another object. In this respect, Sharp *et al.* (1973:3) explain that "attitude towards a language might arise from, or be influenced by, attitude towards the people who spoke that language". The dissimilarity between attitudes towards different language objects is a question of specificity (Fishbein & Azjen, 1974; Gardner, 1985). It is no surprise that language attitudes may display noticeable variation across the different levels of specificity from more general attitudes to specific attitudes. For example, attitudes towards Arabic are more general.

However, attitudes towards learning Arabic, towards speakers of Arabic, towards the status of Arabic, etc are more specific.

With focus on (second/foreign) language learning, Gardner (1985) differentiates between two dimensions of language attitudes: educational and social. The former covers attitudes about the educational aspects of second language acquisition, including attitudes towards learning the language, the teacher, and the course. The latter dimension is concerned with the cultural implications of second language acquisition, like attitudes about social groups, ethnocentrism, and anomie.

Although no one definition of attitude, and subsequently of language attitude, could be met among different researchers, Kahn and Weiss's (1973:761) observe that:

[T]he communality among the various definitions is illustrated by noting that attitudes are selectively acquired and integrated through learning and experience; that they are enduring dispositions indicating response consistency; and that positive or negative affect toward a social or psychological object represents the salient characteristic of an attitude.

Likewise, Sadanand (1993:123) strengthens Kahn and Weiss's view arguing that:

Despite acute differences in the definition of attitude and attitude structure of behaviourists and mentalists, there seems to be a consensus on some aspects of attitudes. For example, everyone agrees that attitudes are learned from previous experience and that they are not momentary but relatively 'enduring'[...] Many theorists also agree that attitudes bear some positive relation to action or behaviour either as being 'predisposition to behaviour' or as being a special aspect of behaviour itself.

The following sub-sections provide a synopsis of language attitudes in the light of the above-mentioned quotes. In other words, what follows is a brief review of language attitude formation, attitude change, and the relationship between language attitude and language behaviour.

### 1.3.2.2 Language Attitudes Formation

It is worthy to consider how language attitudes are formed and where they come from. Analysis of the literature on (language) attitude research reveals that they, like language, are ‘non-instinctive’ but ‘acquired/learned’. As mentioned earlier in Allport’s (1935) definition, previous experiences of interacting with the attitude objects lead to the construction of attitudes. Many and different theories account for attitude formation. The learning theory (e.g. Pavlov’s classical conditioning), for example, suggests that the stimulus-response (S-R) form an association in the individual’s mind. Therefore, conditioning is one way to foster positive or negative attitudes towards an object (e.g. Olson and Fazio 2001). In a diglossic speech community, for example, the high variety (H) is reserved for formal context and used for literacy and literary purposes, whereas the low variety (L) is assigned to informal functions. If the teacher has a tendency to punish school children when they use L in the classroom (H context) either to reach academic goals (e.g. maximum exposure to, and use of, H) or on the basis that L is a form of corrupt language, then the use of L along punishment build an association in the children’s minds and may develop general negative attitudes towards this language variety.

Another view about attitude formation is the one hold by the functionalists who relate attitude formation to psychological needs. In other words, attitudes develop on the basis of how the attitude object meets one’s wants. According to Katz (1960), attitudes are formed to sustain our self-image or existing values. In this paradigm and with reference to, for example, language (policy) as an attitude object, a linguistic policy of *assimilation* in which the major group’s language is favoured and imposed on the whole society as the only state-language may lead the minority linguistic group(s) to develop negative attitudes towards such language policy, and probably even towards the ‘favoured’ language, simply because it does not meet their needs. In Algeria, part of the Berbers (especially Kabylans) may bear negative attitudes about the linguistic policy of Arabization which introduced Arabic as the only official language to the exclusion of other indigenous Berber minority linguistic varieties. Negative attitudes towards Arabization as a policy (specific

attitude) may sometimes extend to cover Arabic as a language and/or Arabs as people (general attitude). The same can be found in different parts of the world; many Catalans developed negative attitudes towards Spanish (the Castilian variety) due to the authoritarian imposition of such variety all over Spain at the expense of their own variety.

Attitudes may also result from behaviours. For example, responses that individuals make to situational stimuli may make them form attitudes upon their experiences (cf. section 1.3.2.4 *dissonance theory* and *self-perception theory*). Attitudes may also be learned from observed behaviour (*social learning theory*). How other people behave can breed our attitudes, and the influence on attitude formation can be direct (observing the behaviour of a mate) or indirect (e.g. through media). In other words, some people learn attitudes by observing the behaviours of others and modeling or imitating them (McDonald & Kielsmeier, 1970). For example, celebrities may perfectly serve as role models because their behaviours are likely to influence attitudes of the mass. The celebrity's language and the way (s)he uses it may form the foundation upon which the fans develop new attitudes, or alter old ones, toward this language.

Attitudes, including language attitudes, are also formed as part of the child's socialisation process. Parents, family members and friends have ample persuasive effects on the individual's attitudes. It is important to mention that many times linguistic policies start at home- as domain or social space (Spolsky, 2004)

### **1.3.2.3 Language Attitudes Change**

As it is mentioned earlier, researchers agree that attitudes are not innate but rather developed through experiences. But they also agree that attitudes are generally long-lasting and stable. However, attitudes (including language attitudes) "do not remain [always] constant over time" (Romaine, 1995:314-315). The social psychologists Eagly & Chaiken (2005:746) observe that attitude duration falls under three kinds: (1) Enduring attitude through one's lifetime, (2) formed but then changed attitude, (3) and formed but eventually receding and disappearing attitude.

In this respect, attitudes are to be seen in the spectrum of a continuum, the edges of which are ephemeral attitudes and eternal attitudes.

It is no surprise that, in the course of cognitive and social development, our attitudes may be altered, and therefore old positive or negative and even neutral attitudes may be relinquished, and the change may occur at a small scale (individual level) or at large scale (societal level). An outline of the factors that affect language attitudes change is worth considering. Baker (1992) lists a number of factors: some are socio-psychologically-oriented, whereas others are historically-/ sociologically-driven.

As for socio-psychological factors, Baker (ibid) proceeds to explain them in the light of the *functional theory*<sup>8</sup> that relates change of language attitude in the individual to the functions that a particular language renders to him. This theory states that the speaker will change his attitude towards a language when one or more of these functions are altered. Let us explain this with recourse to the *utilitarian/instrumental* function, probably the most important function. The utilitarian function spells out that attitudes may change when there is some reward. In this respect, Baker (1992:99) believes that “using and maintaining a language or acquiring a positive attitude to that language may depend on gaining reward and avoiding punishment”. For example, Arabic did not attract the attention of the majority of the elites in Algeria and the Arabization policy was widely associated with negative attitudes when it was first initiated during the late 1960s. However, when political legislations imposed Arabic as the sole functioning language in a variety of domains, Arabic acquired a utilitarian value and became associated with career prospect and many lucrative jobs. The result was a change in people’s attitudes towards Arabic since the old view which restricted Arabic to religious practices became gradually invalid as Arabic turned to be an instrumental language

---

<sup>8</sup> Katz (1960) highlights four attitudinal functions: (1) knowledge (knowledge of attitude helps the prediction of behaviours), (2) self/ego-expressive (expressing who we are, i.e. our identity), (3) adaptive (helps in looking for social approval), (4) ego-defensive (holding attitudes that defend our self esteem)

of administration, education and politics (e.g. the only permitted language in the judicial system).

The fact that language is a personal possession, but also a socio-cultural phenomenon used to communicate with other people in social contexts makes it a must to consider external factors that may influence our attitudes. In this respect, Baker (1992) notes that complementary to socio-psychological factors “is an examination of the three overlapping ‘who, what and how’ issues. Who is likely to effect language attitude change?[...] What situations are associated with attitude change? [...] How does change occur?” (p.106).

Baker (ibid) shows that the community may shape our attitudes towards a particular language in a variety of ways. Parents, relatives and peer groups may have a strong impact on our language attitudes formation and/ or attitudes change. For example, people may develop attitudes towards a language even though they have never been confronted with it. As an illustration, someone who has never learned Chinese might still have attitudes towards it. These attitudes may be negative because, for example, he heard someone else who learned Chinese complaining about its grammar or the way it is written. The formed negative attitudes are then built upon the experiences and attitudes of others. Often, these attitudes remain established until one faces the attitude object directly (Chinese in this instance). “Human modeling” is the concept used by Baker (ibid: 103) to describe such situations where imitating the attitudes of a role model occurs. Baker insists that role model (e.g. father) who is speaking might be more influential than the content itself. He draws this assertion on the basis of Triandis (1971) view which states that attitudes only change under condition that the models are “perceived as having the appropriate status for their verbal communications” (in Baker, 1992: 103).



Furthermore, Baker includes social or community integration among the factor which may cause a change in language attitudes. To understand community effects one may consider in-migration which provides, as (Baker, 1992:108) puts, “the mechanisms and motivation for attitude change”. For example, the introduction of Islam to North Africa by the 7<sup>th</sup> century was coupled with the introduction of Arabic to the region (socio-historical event). The local inhabitants who embraced the new religion, and who spoke different language varieties collectively called Tamazight (or Berber), were required to learn Arabic for religion purposes as well as communication and trade purposes. The value of Arabic (language of religion and the language of the era’s ‘strong’ Islamic Empire), besides the long contact between the locals and the new comers, caused a shift in the linguistic interest of the locals. The result was that the indigenous language witnessed a language loss process in different parts of North Africa in favour of Arabic. This justifies the note that Baker (1992) stresses claiming that convergence practices between different linguistic groups may initiate threats as there is always a danger that “common goals and interests may evoke attitude change that is less favourable to the traditional language” (p.108). Also, the rise of a language with a simultaneous decline of the other confirms that attitudes are strong determinants of language spread and language decay.

Baker (ibid) adds that a supportive political, cultural, and economic environment in which contact and intimacy between different groups are fostered is likely to influence language attitudes and change them. Positive or negative evaluation of a particular language, including the native one, can partly be attributed to how much this language can promote the wellbeing of its users.

Also, the different institutions may have an impact on the early acquired attitudes. The fall or the rise of attitudes towards a language may depend on whether or not this language “has utilitarian value and functional vitality” (Baker, 1992: 110). In other words, the more useful the language is found in daily life, the more likely positive attitudes are. A language of wider functionality in public administrations, banks, media, schools, etc may engender positive attitudes easily compared to a language with minor use (though this also depends on the notion of

language and identity). The school, as an institution, has *the* most prominent influence over attitudes. It is in the school that attitudes towards languages develop or shrink. A compulsory language is assigned higher prestige than an optional language (e.g. Arabic vs. Tamazight in Algeria). The use of a language as medium of instruction or as language of play-ground and sports field is one way to promote positive attitudes towards this language (Baker, 1992).

As far as mass media are concerned, the degree of its impact on language attitude change is still debatable. Klapper (1960; 1963) observes that mass communication usually serves to reinforce existing attitudes and opinions, though occasionally it may serve as an agent of change (in Oskamp and Schultz, 2005). Oskamp and Schultz (*ibid*) proclaim that mass media have significant effects only in particular circumstances and with particular individuals. Baker (1992) mentions that the literature on mass media effects on attitudes change reveals that most change is associated with teenagers. What should be stressed is that mass media serve persuasive functions and, as such, it would be hardly believed that they do not impact our attitudes.

The marketing of languages (diffusion policies) through mass media may determine the attitudes of people (natives and foreign speakers alike) towards a particular language. This relates especially to the utility of a language in a particular field and/or outside its original borders. A simple, yet interesting, example about how the functionality of a language may influence attitudes relates to the internet. The incomparable widespread use of English on the internet (social media, books, journals, documentaries, videos, etc) is likely to trigger the interest of non-English speakers in this language for a variety of reasons (educational, scientific, communication, entertainment, etc).

Parents, peers, official institutions and mass media are not the only social factors that affect our language attitudes. Age is another important variable that may cause language attitudes to change. The attitudes acquired or learned at a particular age, and which might be strongly influenced by a number of external variables, might also be subject to re-evaluation as we grow up and interact with our social environment- a reason to attribute age-related changes to social rather than psychological changes (Baker, 1992). As an illustration, a child may choose a particular foreign language to study along other school subjects though he may not be personally convinced, but his choice is probably influenced by his parents. As the child grows, his attitudes towards such a foreign language may drastically change depending of course on a variety of reasons, not least the benefits it avails to him.

The above-listed causes of language attitude change cannot be considered exhaustive. Other factors may also lead to change. Gender, rituals, previous experiences, to name but a few, are also worth considering.

#### **1.3.2.4 The Attitude-Behaviour Relationship**

The question of how much attitudes and overt behaviours are compatible has been a matter of hot debate among researchers. On the one hand, it is widely believed, especially within the mentalist paradigm, that attitudes have a predictive power on behaviour. In fact, it would not be irrational to anticipate one's behaviour to match the attitude he holds. In other words, the attitude predefines the outward response, and therefore it is expected that "a person who holds a favorable attitude toward some object to perform favorable behaviors [...] similarly a person with unfavorable attitude is expected to perform unfavorable behaviors" (Ajzen & Fishbein, 1977: 888). As such, with reference to language attitudes, one would assume that an individual who bears negative attitudes towards a language is more likely to show unfavourable behaviour. For example, he will not speak this language even if he is a competent speaker.

The *theory of planned behavior* ( of Ajzen, 1985), which is an improved version of *the theory of reasoned action* (Fishbein and Ajzen, 1977) in addition to the other, say, challenging *the attitude-to-behavior process model*, initiated by Fazio and his associates (1986), stand out as the most prominent theories which support the claim that attitudes are precursors of behaviours. In their theory, Fishbein and Ajzen, for whom attitudes drive behaviours through deliberate processes, give credit to three predictors of behaviour. The first one is *attitude toward the behaviour*. Secondly, *subjective norm* is the perceived social pressure to perform or not to perform the behaviour (Ajzen, 1991: 189). Thirdly, *perceived behavioural control* indicates the perceived simplicity or complexity of performing the behavior. *Intention*, which leads to behaviour, is constructed when the three elements merge. In Fazio and his associates' model (1986), it is assumed that attitudes can guide behaviour not necessarily through deliberate processes but also through spontaneous processes.

Although it is a sound assumption to assume that attitudes guide behaviours, counter evidence is not hard to find. For example, while a doctor is scientifically aware of the negative impacts of alcohol on the human organism and may further advise his patients to avoid alcoholic drinks, he may still be a heavy drinker. As far as languages are concerned, one who has negative attitudes towards a particular language may still endeavour to learn it. This can be found, for example, in heterogeneous societies where distinct linguistic groups live together. If the state's linguistic policy only approves one language and dismisses the minority languages, then the approved language will gain an instrumental value (language of the school, administration, etc). The minority linguistic groups may bear strong negative attitudes towards this language, but they may most probably learn it so as to have access to a variety of domains. With a consideration of Algeria, many Berbers, especially Kabylans (Kabylan variety of Tamazight), developed negative attitudes towards Arabic which is the politically-cherished language. However, they still learn Arabic as it is the key to a number of public domains, being of course the sole medium of instruction in all pre-university public schools. This shows a strong mismatch between the language attitude and actual behaviour.

Wicker (1969) turns the widely acclaimed attitude-behaviour *correspondence (consistency principle)* highly questionable out of a review of 42 studies, in which 30 studies exposed few correlations while some revealed no causal link. Richard LaPiere's research (1934) is often regarded a reference point of attitude-behaviour inconsistency<sup>9</sup>. LaPiere accompanied a Chinese couple throughout America anticipating to meet discrimination due to the widespread anti-Asians prejudices at that time. Out of 251 restaurants and hotels that they visited, only one restaurant refused to serve the Chinese couple. Half a year later, LaPiere messaged all the restaurants and hotels they had visited requiring them whether they would accept Chinese customers. Incredibly, 91% of the respondents provided negative answers. This study agreeably demonstrates that there may be a blatant mismatch between attitudes and actual behaviour.

Edwards (1983:7) backs up such a fact claiming that “there is no necessary one-to-one correspondence between overt behaviour and attitudes”. Likewise, Baker (1992:15) emphasizes that people's responses are often changeable across different contexts and that “as props on the stage change, as different actors and actresses change [...], behaviour may change accordingly, and attitudes may become imperfect explainers and predictors of behaviour”. It is of prime importance to note that LaPiere's results does not reject the correlation between attitudes and actual behaviours, but it only challenges the overestimated consistency between the two. The attitude may be a precursor of behaviour, but other factors may also guide behaviour, and attitude is not systematically the most powerful forerunner. About this matter, Triandis (1982) lists roughly forty variables which may affect attitude-behaviour consistency. Because they cannot be used to predict other behaviours, attitudes within the behaviourist approach would not be as interesting as they would be if they were defined mentalistically (Fasold, 1987).

---

<sup>9</sup> LaPiere's work has been refuted by many researchers as an instance of the attitude-behaviour inconsistency since it does not consider many other factors. For instance, those who served the Chinese couple might not be the same people who answered the letter (e.g. Fishbein & Coombs, 1974).

In a defensive comeback for the previously-mentioned studies, Fishbein and Ajzen (1974) clarify the attitude-behaviour discrepancy in a number of ways. For instance, it may be the result of employing different levels of specificity in measuring attitudes and behaviours. For them, many studies that have been reviewed used a single highly specific behavioural measure and related it to a general attitude measure. To illustrate this, attitude towards foreign languages, attitude toward a particular foreign language and attitude toward speaking that particular foreign language have different levels of specificity. Accordingly, as Fishbein and Ajzen (1974) mention, relating a specific behaviour like watching a movie in this particular language to the more general attitude towards this language does not result in more than unsatisfactory findings. Therefore, if consistency is the final end, attitudes and behaviour have to be considered at comparable level of specificity (Fishbein & Ajzen, 1974; Johnson & Boynton, 2010).

Beyond consistency between the two elements, the attitude-behaviour relationship was also considered the other way round, i.e. instead of being the offshoot of the attitude, the behaviour may instead influence the attitude. This can be explained with reference to Festinger's (1962) *dissonance theory* or Bem's (1972) *self-perception theory*. According to the dissonance theory, when the behaviour and attitude are incompatible, psychological discomfort is likely to take place. As a reaction, the individual will tend to reduce such discomfort either by changing the behaviour or other relevant cognitions (e.g. attitudes) if not by adding cognitive elements. Under free choice performance, individuals will tend to adjust attitudes in order to be consistent with their behaviours. In Bem's self-perception theory, people make deductions about their attitudes on the ground of their behaviour just like observers deduce others attitudes from visible behaviours.

To sum up, it has been demonstrated that attitudes can largely determine behaviour. However, this compatibility relationship depends on a variety of factors. It has also been mentioned that the influence can go in a reversed trajectory, and the attitude is then formed or altered on the basis of behaviour. This bi-directionality of the attitude-behaviour relationship led Holland *et al.* (2002) to assume that the

potency of the attitude is a determinant factor in that strong attitudes drive behaviour and weak attitudes follow behaviour.

An examination of (language) attitudes, or the link between attitudes and behaviours requires the ability to measure these construct. As such, the coming subsection portrays the ways though which attitudes are usually measured.

### **1.3.2.5 Language Attitude Measurement**

As interest in language attitudes research was triggered in the early 1960s, various, often contradictory, techniques have been postulated to measure such attitudes directly or indirectly, qualitatively or quantitatively. Ryan *et al.* (1988: 1068) group the different techniques into three main categories: *the societal treatment approach, direct measurement, and indirect assessment*<sup>10</sup>. What ensues provides a broad review of each measurement technique and sketches out their strengths and their weaknesses.

#### **1.3.2.5.1 Content analysis of societal treatment**

The societal treatment approach (also referred to as the content analysis approach) looks, as the name implies, at how language varieties and their speakers are publically treated within a society. This approach falls under the realm of qualitative research, and it incorporates all techniques which do not entail overtly asking informants for their views (Ryan *et al.*, 1988). Accordingly, it is up to the researcher to deduce the attitudes from overt, observed behaviour or from documents analysis. As such, observation and ethnographic studies, in addition to public documents analysis, form the sources of data. The analysis generally concerns “the status and/or the stereotypical associations of languages and language varieties and their speakers” (Mckenzie, 2010: 41). Studies of the linguistic landscape, such as road signs and street names in de jure multilingual polities, such as Belgium and Canada, exposed a patchy distribution of the varieties, as well as

---

<sup>10</sup> Ryan et al. point out that discourse-based analysis is a more recent approach (in Garrett *et al.* 2003:14).

systematic differences in placement and material quality which echo differences in the status of each language variety (Garrett, 2010:155)

even if the results achieved via this approach proved to be “of immense importance in its own right” (Garrett, *ibid*: 51), specialists from the social psychology of language view this approach lacking rigour on the ground that the researcher does not have access to the cognitive and affective aspects of the informants but only depends on personal inferences from visible behaviour (see the early discussed attitude-behaviour relationship). Therefore, it is not surprising that such an approach is often ignored in discussions of language attitudes (Ryan *et al.* 1988).

#### **1.3.2.5.2 The Direct Approach**

To know the attitudes people bear towards a particular object suffice it to ask them directly as to what their attitudes are. Therefore, language attitudes may be measured through direct and explicit written or verbal questions, i.e. interviews or questionnaires. Such questions usually elicit self-reports. Questioning is actually a traditional attitudinal measurement technique, and its written form (questionnaire) remains one of the most frequently used methods. Numerous studies have shown how lucratively the questionnaire is. Besides the possibility of covering a large population, less time and effort are required to achieve invaluable results.

The main criticism to the direct method is that measuring language attitudes on the basis of self-reports by the informants engenders potential validity issues. In fact, asking informants straightforwardly about their attitudes guarantees in no way true responses. Recall that attitudes are associated with self-image and social acceptance, and to score a positive self-image, informants’ responses may be deeply influenced by social desirability or self-flattering strategies (Dovidio & Fazio 1992). As such, it is likely that informants may deceive themselves or others in that they may repress their real attitudes and reveal only what makes them feel socially-acceptable. If this is the case, expressed attitudes will not match overt behaviour. Bourhis (1983) reports a representative case of the mismatch between overt attitude



and actual behaviour. When French Canadians were required whether they would switch to English if they were addressed by an English speaker, the greater part of them refuted that they would do. In practice, these people swiftly accommodated to English whenever they were addressed by an English-speaking person (Bourhis, 1983). This implies that informants refrained their true attitudes and only wanted to please the researcher.

Also, it is of significance to mention that informants' self-reports may be profoundly contaminated by the presence of the researcher (as interviewer) as well as the wording of the questionnaire statements. This is the main reason why some researchers (e.g. Cohen, 1974; Woolard, 1992) have alerted about the dependency on the direct method solely. This pushed Labov (1966) to argue that direct questioning alone is of very little value and thus it is better to be used in conjunction with more indirect methods. Although the direct method has been subject to criticism, this does not undervalue its role as a significant measurement technique. This is obvious with an examination of the numerous past and today's researches worldwide.

#### **1.3.2.5.3 Indirect Approach**

Indirect measurement techniques emerged as a reaction against the shortcomings of the direct approach to language attitude measurement, especially the problematic question of social desirability. Such techniques look for information that is more implicit and less easily accessible through introspection (Greenwald & Banaji, 1995), and are qualified for their ability to capture people's real and spontaneous attitudes towards different language varieties. Under the indirect approach, a number of techniques are used and the *matched guise technique* (MGT) is the one which gained most scholarly attention.

The MGT was introduced by Lambert and his associates (1960), and it is based on the presentation of various audio pieces that are recorded in different languages (termed guises). Although the same speaker (who should be competent user of both guises) is required to read the texts in different languages (translated version), for the informants, they are only listening to apparently different speakers. Informants are not aware of what is being measured, and therefore their responses and behaviours are likely to be natural, hence reliable. Lambert *et al.* (1960) relied on such a technique to find out attitudes held by bilingual French Canadians towards English and French. Short paragraphs with the same content in both languages uttered by the same speakers were recorded (the only variable is the language) and informants were asked to rank the different speakers on a number of different personality traits that the informants think they can identify from the voice cues. English guises were ranked higher on certain traits (e.g. leadership); other traits (e.g. kindness) were ranked higher for French guises. Lambert's *et al.* (1960) pioneering work opened the door to other studies worldwide; not only attitudes towards different languages were explored but also attitudes towards dialects (social and regional) and accents were investigated.

The *verbal guise technique* was introduced as an alternative to the MGT, especially to cover the gap in situations where the speakers being recorded cannot compellingly represent the necessary guises (such as in the case of putative monolinguals or unbalanced bilinguals). This technique is actually no other than a variant of the MGT; the difference between the two techniques is that the verbal guise technique requires different speakers (instead of the one and only speaker) to be tape-recorded. Such a technique has been used in a number of studies, including the investigation of regional U.S. accents (Smith and Bailey, 1980), Cantonese-accented Mandarin in China (Kalmar *et al.* 1987), to name but a few. Whether the researcher relies on the MGT or the verbal guise technique, the semantic differential technique or Likert scale may be used as evaluation aids.

Although the indirect approach remains notably favoured by many researchers dealing with language attitude studies, it has remarkably received acid criticism from a number of highly acclaimed scholars (e.g. Agheyisi & Fishman, 1970; Garrett *et al.*, 2003). Such criticism did not only come from antagonists of the indirect approach, but even Lambert reported a number of pitfalls associated with his MGT (see Gardner & Lambert, 1972). It should be noted that the MGT relies on inferences from overt behaviour, but behaviour does not always reflect true beliefs and feelings towards a language. Bourhis & Giles (1976) and Fasold (1984), among many others, noted that the MGT lacks authenticity and is qualified as an artificial technique due to its (quasi) experimental nature where data are elicited in controlled settings such as classrooms and laboratories. Therefore, requiring listeners to judge speakers' personality traits only on the basis of their voice cues, though it does give maximum control over other variables, is "a bit far removed from real life contexts" (Fasold, 1984: 154-155). In the same line, Lee (1971) adds that the recorded messages can mean that listeners place their attention on the linguistic features of the guises used more than they would in a natural and uncontrolled situation. For Woolard (1989: 95), the correlations that are discovered may be bogus and researchers cannot be certain that they focused on the aspect of the social behaviour that truly explains the effect observed.

Also, the MGT implies that the same passage must be read by each speaker in different languages (translated version) in order to control the content of the language samples. This is problematic as it introduces one variable and controls another; the speaker may be judged as performer of reading, and not on the ground of the language variety he is uttering (Fasold, 1984). From a research methodology standpoint, using indirect measuring techniques means the deception of informants because they are not aware that their attitudes are actually subject to investigation; this signals ethical problems. Another issue is that it was proved that speakers change language features when it comes to their identity (Gallois *et al.*, 2007). The stereotypes held by the speakers towards languages varieties will thus have an impact on their accents and styles (Gallois *et al.*, *ibid*: 599). Therefore, such critical

issues have encouraged a return to more direct measurement techniques (Gallois *et al.*, *ibid*: 600).

It has been shown that neither direct nor indirect measurement techniques are completely satisfactory. Each technique has banes and boons. Hence, the ideal would be if the researcher on language attitudes opts, when possible, for a combination of the two approaches which may “complement each other in order to provide more certainty” (McKenzie 2010: 52).

### **1.3.2.6 Language attitudes and Language Policy**

Language attitude research did not remain restricted to the social psychology of language, but it has become a de facto integral part of many other disciplines, not least sociolinguistics. This is because research on language attitudes is thought to be, as Garrett *et al.* (1999: 322) view, a key element in the building of sociolinguistic theory because explanations of sociolinguistic phenomena are most likely to reside in socio-psychological processes. For example, Language attitudes are of a decisive role in accounting for the life or the death of any particular language variety. In this vein, Baker (1992: 11) reveals that “in the life of a language, attitudes to that language appear to be important in language restoration, preservation, decay, and death”. Baker (*ibid*) adds that “[i]n terms of minority languages, attitudes, like censuses, provide a measure of the health of the language”. Research has also shown that attitudes towards a language constitute a building unit in any language revitalization enterprise. Positive feelings of pride and prestige about the language certify that the users value this language (King, 2009; Reyhner, 1999).

Besides interest in the relationship between language attitudes and language shift/maintenance, language survival and spread (e.g. Williams, 1991a), language choice, language loyalty, standard vs. non-standard varieties, the field of language planning and policy perfectly reflects the importance of language attitude studies. In fact, language planning and policy and language attitudes are often interwoven and many researchers (e.g. Baker, 1992, 2006; Lewis, 1981) strongly agree that the

success or malfunction of any language policy depend (at least partially) on the attitudes of the community (and individuals) in question towards the introduced policy. In this respect, Baker (2006:2010) confirms that “attitudes towards [...] language laws [...] may well affect the success of language policy implementation”. Attitudes and language policy might be in a relationship of reciprocal causation, being both cause and effect of each other. In other words, linguistic policy may positively foster attitudes towards a given language (policy) or may breed the sense of hostility. In turn, positive attitudes towards the linguistic policy help accelerate its successful implementation as negative attitudes may disturb, or refrain, implementation.

As such, it is vital that language planners and language policy-makers take account of people’s attitudes and desires to make their policy manifest "the needs of the people, and not the interests of any particular language" (Webb, 1996:186). For example, in a multi-cultural/multi-linguistic community whose distinct linguistic groups show strong attachment and loyalty to their languages, a balanced language policy is required to guarantee social harmony. This policy may build upon preliminary surveys on language attitudes, and these surveys should not exclude any significant linguistic group. Otherwise, if a group’s language is favoured (generally the dominant’s group language) over the other language(s) (often minority language(s)) and the attitudes of the disfavoured linguistic group(s) are not seriously taken into consideration, then it is no surprise that a policy of such a type will generate severe tensions in society.

Because language attitudes are related to the socio-cultural context of the language, a consideration of attitudes come to nothing if its socio-cultural context is discarded. Schiffman (1996) observes that language attitudes constitute a component of *linguistic culture* and because language policy is often rooted in linguistic culture, attitudes cannot be disregarded. He explains this arguing that it is not possible to assess the chances of success of policies without reference to culture, belief systems, and attitudes about language. As one illustrative example, Schiffman (1997) shows how certain linguistic forms bear what Labov (1966) calls *covert prestige*. With reference to some non-standard forms in Philadelphia, Schiffman

reports that male speech seems to have covert prestige, being associated with 'machismo'- a strong sense of masculinity. Attempts to extirpate such forms will then be seen as an attack on the masculinity of their users, and will fail.

Although language attitudes are of prime importance in the overall language policy, their role is more apparent in language-in-education policy. In this line, Lewis (1981:262), and after him Gardner (1999: 86), reports that “[a]ny policy for language, especially in the system of education, has to take account of the attitude of those likely to be affected [...] In any case, knowledge about attitudes is fundamental to the formulation of a policy as well as to success in its implementation”. With respect to LiEP, macro (state) decisions are articulated about what second/foreign languages should be introduced and at what age. Also, of high concern to LiEP is the medium of instruction, i.e., which language should serve as the primary medium in schools. This is extremely problematic in developing countries where a LWC (generally a language of the ex-colonizer) serves as the language of school at the cost of the local mother tongue which is often assigned minor usages. In many times, attitudes, especially those of learners, towards such second/foreign language policy are not taken at high esteem.

#### **1.4 Conclusion**

As it has been highlighted in the introduction to this chapter, the aim of this first chapter was to provide a general overview of the relevant literature. This cannot aspire to be exhaustive. The end here is only to contextualise some of the key concepts and to situate the work described in this thesis within these trends. In the same way that basic concepts of LPP have been briefly sketched, the concept of language attitude has also been reviewed from a purely social psychological perspective. The following chapter is an attempt to provide a synopsis of LPP in Algeria.

## **CHAPTER TWO**

## **Language Planning Issues in Algeria**

### 2.1 Introduction

### 2.2 Language Planning in Algeria: the Policy of Arabization

### 2.3 Arabic: Major Language Planning Challenges

#### 2.3.1 Varieties of Arabic

##### 2.3.1.1 Classical Arabic

##### 2.3.1.2 Modern Standard Arabic

##### 2.3.1.3 Educated Spoken Arabic

##### 2.3.1.4 Colloquial Arabic

#### 2.3.2 Arabic: a Diglossic Language

#### 2.3.3 Diglossia's Implications on Education

##### 2.3.3.1 What Alternative(s)?

##### 2.3.3.2 Critique

##### 2.4.2.3 A Logical Option

#### 2.3.4 Issues in the Modernisation of Standard Arabic

### 2.4 Tamazight in Algeria

#### 2.4.1 The Amazigh Fight for Recognition

#### 2.4.2 Corpus Planning Efforts

##### 2.4.2.1 Grammatication and Lexication

##### 2.4.2.2 Graphisation

#### 2.4.3 Tamazight in the School

### 2.5 French: A Linguistic Reality in Algeria

### 2.6 Conclusion

## 2.1 Introduction

Historical, political, ethnic, educational, and socio-cultural factors have all contributed in making Algeria a conglomerate with a mosaic linguistic composition in which three main languages coexist side by side. Chronologically, Berber figures more in the history of the country. After a prolonged struggle for institutionalization, such minority indigenous language could finally achieve the status ‘joint-official’ language (2016). Arabic, which identifies in two forms (dialectal and literary), is a relatively latecomer which was introduced to North Africa since the 7<sup>th</sup> century. Its H variety (i.e. Literary Arabic) has been recognized as the official language of the state since independence (1962). French, a colonial legacy, is politically referred to as ‘foreign’ language but it has, on linguistic grounds, the stand of a second language. As such, Algeria identifies as a *de jure* bilingual, *de facto* multilingual, speech community. Also, the ‘functional specialisation’ of each language renders Algeria a representative case of both *in-diglossia* and *out-diglossia*.

The existence of a myriad of languages makes it necessary to examine Algeria’s linguistic policy.

## 2.2 Language Planning in Algeria: the Policy of Arabization

Arabization<sup>11</sup> is, in a linguistic sense, the term used to label the linguistic policy adopted by the Arabic-speaking states to promote (Standard) Arabic and strengthen its position designating it as the ‘national’, many times sole ‘official’, language. Such a policy coincided with the rise of independence waves in the Arab

---

<sup>11</sup> Although it is widely popularized in the literature, ‘Arabization’ is actually a misleading term. An exact label would be ‘Re-Arabization’. This builds on the fact that North Africa had been largely arabized since the 7<sup>th</sup> century when Islam was introduced to the region. Arabic, the language of the new religion and of the time’s strong Islamic Empire, became soon the dominant language and displaced spoken local varieties of Berber in many areas. Berberophones has always figured out that adding another linguistic string (Dialectal and/or Standard Arabic) to their bows is a necessity to function in a largely arabized country. Centuries before French colonialism (1830), Arabic served as the medium of instruction in *Zaouïas* and *Medersas* which furnished literacy on a religious basis (teaching of the Quran and principles of the Islamic faith, Arabic language, mathematics, history, etc.). It was only during the colonial rule that Standard Arabic lost its position as it was subject to organized campaigns (see section 2.5).



World during the 1950s and 1960s. As far as Algeria is concerned, Arabization was promoted since the early years of independence. Few days before the official declaration of independence (July 5<sup>th</sup>, 1962), the *Tripoli Congress* (June 1962) discussed the major principles of the young independent republic. As for the cultural side, the *Tripoli Charter* proceeds:

The role of the national culture will be based, primarily, on restoring the dignity and efficiency to the Arabic language as a language of civilization [...] Restoring the national culture and gradual Arabization of education relying on scientific bases, and this is among the hardest missions of the revolution as it demands modern cultural means, and doing it in a hurry is not promising without a possible sacrifice. (Tripoli Charter, 1962)

After his release from French custody in Tunisia (1962), Algeria's first president- Ahmed Ben Bella (1962-1965)- proclaimed adherence to *Al-umma Al-Aarabiyya* (the Arab Nation) repeating his famous public statement "we are Arabs" three times<sup>12</sup>. Such orientation was manifested in the (first) Algerian constitution of 1963 which declared Islam as the religion of the state (article 4) and Arabic as the national and official language of Algeria (article 5)<sup>13</sup>. It became obvious that Algeria has placed herself within the Arab-Islamic World (this is also endorsed in the following constitution of 1976, 1989 and 1996; see Appendix A for a number of language laws). Because the ideological stance in language policy is definitely inescapable (Tollefson, 1991), Arabization was also an ideology-oriented policy. Ricento (2000a:7) views that "language policies can never be properly understood or analyzed as free-standing documents or practices". As for Arabization, it was motivated by three essential elements: (i) Arabic reflects cultural independence; (ii) Arabic is the language of Islam; (iii) Arabic is the language of the Arab Nation (McDougall, 2006).

---

<sup>12</sup> Ironically, Ben Bella's statement was delivered in French "Nous sommes des Arabes!"

<sup>13</sup> All the constitutions of Algeria (1963, 1976, 1989 and 1996) consider Arabic as the sole official language. The point which should be raised is that such documents do not specify what variety of Arabic. Understandably, it is Literary Arabic (and not Dialectal Arabic) which is meant.

A consideration of the colonial policy towards the indigenous inhabitants of Algeria (e.g. deculturalisation, imposition of French, campaigns against Arabic, etc) makes it possible to argue that Arabization was a normal and justifiable socio-psychological reaction (see section 2.5). Defending Arabic became a duty especially that it was associated with defending Islam, identity, and customs. In this respect, K. Taleb Ibrahimi (1995:186) argues<sup>14</sup>:

L'arabisation est devenue synonyme de ressourcement, de retour à l'authenticité, de récupération des attributs de l'identité arabe qui ne peut se réaliser que par la restauration de l'arabe est une récupération de la dignité bafouée par les colonisateurs et condition élémentaire pour se réconcilier avec soi-même.

For revolutionary nationalists, French was a colonial hangover that should be eradicated by whatever means. Understandably, the negative attitudes towards (colonial) France did not concern one level of specificity, but it covered a whole range of levels including the linguistic one, i.e. attitudes towards the language of the colonizer (for levels of specificity, see section 1.3.2.4). In fact, Arabization is only one instance of the prevailing policies during the 1960s and 1970s. In his outline of the field of language planning and policy up to 2000, Ricento (2000b) defines three epochs, namely 'macro sociopolitical processes' (between 1960 and 1970), 'epistemological archetypes' (early 1970s up to the late 1980s) and the 'intended strategic goals for which LPP investigation is conducted' (started around the mid 1980s). The policy of Arabization can be identified as a prototype of the first phase of LPP. Such early planning activities focussed on the role of language in nation-building and modernisation. As such, "the idealization of one nation/one (standard) national language [...] was the model which at least implicitly informed language planning in decolonized states in Africa, Asia and the Middle East" (Ricento, 2000b:11). At the same time, linguistic diversity (i.e. multilingualism) was seen as a hindrance to nation-building (Ricento, *ibid*).

---

<sup>14</sup> "Arabization has become synonymous with healing back to the authenticity, retrieving attributes of the Arab identity that can only be achieved by restoring the Arabic language, recovering the dignity denied by the colonizers, and the elementary condition to reconcile with oneself."

Because French was identified as the language of the enemy and Berber was a non-standard minority language with significant regional variation, the role of ‘national language’ was determined in favour of (Standard) Arabic. Nationalist policy-makers who took control over post-colonial Algeria were convinced that only Arabic can serve as a unifying force within the country which counts different ethnic and linguistic groups (Arabs, Arabized Berbers, Berbers, etc). Hence, Arabization was seen as a key to social harmonization and sociopolitical integration. In this respect, Fishman (1968), commenting on the ends of language planning with regard to new nations, argues that “the language problems of the ethnically fragmented ‘new nation’ reflect its relatively greater emphasis on political integration and on the efficient *nationism* on which it initially depends” (p. 492).

The official decision to accelerate Arabization started after issuing the decree number 46-145 of May 1964 which ordered the creation of a high school for translation in Algiers University whose purpose was to hasten Arabization through the formation of a panel of translators. The year of 1971 was a turning point in the discussion of Arabization, a reason to name it the *Arabization Year*. Under the leadership of the authoritarian president Houari Boumediene (1965-1978), the central government initiated an exhaustive development policy in the form of three revolutions: agricultural, industrial and cultural. Arabization stands in the heart of the Cultural Revolution. The year of 1973 marked the birth of the *National Committee for Arabization*. Three years later, the *National Charter*<sup>15</sup> was established. Regarding Arabic, the charter announces:

---

<sup>15</sup> The national Charter is an influential document as it is the source of legislation. Article 6 of the constitution of 1976 proceeds: “The National Charter is the fundamental source of national policy and State’s laws. It is the source of ideological and political reference for the Institution of the Party and the State at all levels. The National Charter is also a fundamental instrument of reference for interpretation of the Constitution”.

The choice between the national language and a foreign language is not contained at all and is irreversible, and no debate about Arabization is possible anymore except in respect of the content and the means and methods and stages [...] the Arabic language is an important element of the cultural identity of the Algerian people, and our character cannot be separated from the Arabic language which expresses it.

(National Charter, 1976)

Ten years later, under the presidency of Chadli Bendjdid (1979-1992), the charter was modified and enriched with a number of regulations. The *National Charter of 1986* does not mention any language other than Arabic. Languages such as English and French (named ‘foreign languages’) are cited as references to globalization, science and technology. The constitution of 1989, which came after a number of socio-political events (collectively known as the *Events of October 1988*) did not introduce any changes as far as languages are concerned. The same fact goes with the constitution of 1996. However, this latter was subject to an amendment in 2002 when Tamazight was declared ‘national’ language.

Being the politically ‘cherished’ language, Arabic has witnessed a steady spread which covered almost all domains, including public administration, justice, army, to name but a few. However, it was in the educational sphere that important linguistic legislative measures were taken as the school is an/*the* major agency for language diffusion. Arabic could gradually gain ground and oust French from its position. It was first introduced (October 1962) as a subject of instruction with seven hours per week then with ten hour per week by 1963. Arabization took a new drive with Ahmed Taleb Ibrahimi- minister of education (1965-1970). Arabizing the primary school was done grade by grade, and by 1974 primary education was entirely arabized; secondary education was in the way. Since 1989, Arabic has become the sole medium of instruction in the primary, middle and secondary schools. French lost its function of ‘language of instruction’ and turned out to be no other than a ‘subject of instruction’ (foreign language) studied since the fourth grade (now, since the third grade)- there is no space in this section to provide details about the implementation of Arabization (see, for example, Grandguillaume 1983 for further details).

Besides the pre-university stage, higher education was also subject to Arabization. A variety of disciplines have been completely arabized, including humanities, social sciences, economics, management, commerce, etc. The fields that have resisted such linguistic policy are sciences and technology<sup>16</sup>. In fact, the law of January 1991 (N 91-5), which was issued during the presidential term of Chadli, set July 5<sup>th</sup> 2000 as the date for generalizing Arabic in education, including the university. However, after the resignation of the president in 1992, which coincided with an internal bloody conflict, the law was made on hold to be reinstated on December 21<sup>st</sup> 1996, under the presidency of Liamine Zeroual (1994-1999). As a result, scientific and technological institutions of higher education were partially arabized to the extent that arabized sections paralleled French section in some institutions. However, the advent of president Bouteflika (1999- ) made such a law, Arabization as a whole, on hold again (it was not annulled by another presidential decree).

In fact, Arabization has always been a bone of contention and a matter of political controversy. Since its initiation in the 1960s, it has received acid criticism on the basis that it does not consider the *de facto* multilingual composition of Algeria (one weakness among many others). Arabization has simply created a condition of linguistic conflict in which Arabic has to face the two other languages: French and Berber. However, it would not be erroneous to argue that the true conflict was/is between Arabic and French; Berber has never been a competent rival. Arabic, and in turn French, have always been perceived differently by policy-makers (as the status of a language remains in the hands of politicians) and linguists. On the one hand, pros of Arabic argue that political independence must go hand-in-hand with cultural independence and this is possible only if French, as an aspect of cultural neocolonialism, is excluded from all active sectors. On the other, “the frenchified élite voiced their claims in what they called “the language in which the message could be expressed, i.e. French” (Bensafi, 2002:835). For such a group,

---

<sup>16</sup> It is only the field of medical sciences which remained unconcerned with Arabization. In a number of universities, scientific and technological fields (e.g. biology) were also (partially) arabized during the presidency of Liamine Zeroual.

French is not the property of the old enemy but rather an indispensable linguistic resource as it is a door towards modernity. It has become commonplace that each group name the other in derogatory labels: advocates of Arabization are generally called *Islamists*, *fundamentalists* and *chauvinists*; defenders of French are usually named the *enemies of Arabic*, *infidels*, *occidentalists*, etc.

With focus on education (the situation is not better in other domains), one would be hard pressed to deny that an *early* Arabization of the school was a hasty, if even a reckless, decision. This builds on the verity that Arabic did not meet at the time the requirements of the medium of instruction (Benmoussat, 2003); it was actually challenging to introduce it even as a subject of instruction. The basic issues related to the scarcity/absence of Arabic reading materials as well as linguistically competent teachers who can deliver lectures in Standard Arabic. The fortunate educated Algerians in the post-independence era were largely francisant (frenchified). Without linguistically qualified teachers, Arabization is doomed to failure. As a remedial action ('remedial' is used with reservation), the regime was forced to recruit thousands of teachers from Egypt and Syria whose majority were non-qualified (Grandguillaume, 1983; Benrabah, 2004). Interpretably, implementation of Arabization became a question of 'the principle' at the cost of 'the practical'. With regard to the situation at that time, one would agree with Morocco's king, Hassaine II (1961-1999), who declared before a parliamentary commission in 1978 that "if Arabization is a duty, bilingualism is a necessity" (quoted in Mouhssine, 1995: 49).

The availability of such Arab teachers from the Middle East made it possible to create arabized sections which paralleled bilingual sections (dominated by European teachers), "each with their own teachers and their own methods [...]. This juxtaposition of methods and curricula led to a parental preference for the bilingual sections and a certain devaluation of Arabization. Especially since the economic sector, and the administrative sector to a large extent, still relied on the French language" (Grandguillaume, 2005: 9). Bilingual sections were abandoned by the

late 1980s and (pre-university) education has become since then entirely monolingual.

Now, it has become the norm to hear that education standards have drastically fallen. For the mass, the current Algerian school system furnishes no other than diploma-holders with no academic qualifications. In one of his complaints about the dramatic school situation, president Boutelika (1999) had this to say<sup>17</sup>:

*Le niveau a atteint un seuil intolérable, au point où le diplôme algérien qui était reconnu par la Sorbonne, Harvard et Oxford jusqu'aux années 80, n'est plus accepté pas même par les universités maghrébines. Les étudiants tunisiens et marocains venaient en Algérie pour étudier la médecine et la pharmacie. Aujourd'hui, c'est l'inverse qui se produit [...]*

(quoted in Benrabah, 2002 :78, italics in the original)

As far as the linguistic dimension is concerned, it has become commonplace to label Algerian school leavers 'semilinguals', denoting that both their Arabic and French expose significant deficiencies on a variety of levels. However, a discussion of low quality education on linguistic grounds solely would be unsound. Aitsiselmi and Marley (2008 :207), for example, make this clear arguing that Arabization and the concurrent loss of French in schools were doubtless part of the problem but "there were and still are, other equally serious factors which are responsible, not least the fact that the education system changed rapidly from being an elite institution to being open to the masses [...] The major cause of the perceived fall in standards must be the massive expansion with limited resources" (see, for example, Aitsiselmi and Marley 2008 for a non-exhaustive list of reasons).

---

<sup>17</sup> "The level has reached an intolerable threshold to the extent that the Algerian diploma, which was recognized by the Sorbonne, Harvard and Oxford until the 1980s, is no longer accepted even by the Maghreb universities. Tunisian and Moroccan students came to Algeria to study medicine and pharmacy. Today, it is the opposite which occurs".

While many calls are voiced to restore bilingual education, partisans of Arabization still insist on the priority of Arabic. For them, return to the French-based education is refuted especially that the question of linguistically-qualified teachers (those who can use Standard Arabic for instruction) and teaching/learning materials are no longer valid excuses. They even stress the need to generalize the Arabization of higher education, i.e. to cover scientific and technological fields which remain basically conducted in French. Within this fragmented linguistic policy with an entirely arabized pre-university education and a higher education dominated by French, the victim is the Algerian learner who has to cope with the abrupt switch in the medium of instruction (i.e. French) once he joins the university. “Here lies the core of the crisis of the educational system in Algeria” (Rebai Maamri, 2009:84) - the extent to which such sudden switch in the language of instruction impede efficient content learning will be discussed in part one of chapter four.

Since the linguistic policy of Algeria favours Arabic over other languages, it is of paramount importance to consider the language planning efforts, beyond status planning, vis-à-vis such language.

### **2.3 Arabic: Major Language Planning Challenges**

This section is meant to consider two main dimensions. First, in terms of acquisition planning, the section provides an outline on the diglossic nature of the Arabic language and its negative repercussions on quality education. Secondly, corpus planning will be reviewed from the perspective of language modernisation. Before tackling the two dimensions, it is necessary to provide a general picture about the Arabic language.



### 2.3.1 Varieties of Arabic

Users (native) of Arabic are aware of two varieties of their language: Literary and Colloquial. However, modern linguists recognize a continuum of varieties. The newly introduced variants were first signaled by western linguists studying Arabic and Arab researchers who received their education in western institutions (Zughoul, 2007). However, identifying a whole range of Arabic varieties is still a matter of debate in that many native scholars do not consider other than two varieties. The usually identified varieties are Classical Arabic, Modern Standard Arabic, Educated Spoken Arabic, and Colloquial Arabic<sup>18</sup>.

#### 2.3.1.1 Classical Arabic

Classical Arabic (henceforth CA) is the language used in pre-Islamic literature, and it is the language of divine revelation (i.e. language of Muslims holy book, the Quran). CA is considered normative for it is the source out of which classical grammarians (e.g. Abu Al-Aswad Al-Du'ali, Al-Khalil, Ibn Djinni, etc.) inspired and laid down the rules of correct usage. It is of significance to point out that CA remains basically unchanged to this day (Freeman, 1996). If we accept the existence of the four variants of Arabic, we will be allowed to argue that CA is:

- ✓ restricted to religious purposes (e.g. reciting the Quran, delivering Sermons);
- ✓ the language of a large body of classical literature (prose but especially poetry);
- ✓ the rhetoric language of eloquent speakers and preachers, known as language guardians.

It is of significance to mention that the direct link with the Quran makes CA a 'cherished' variety; it is further a 'sacred' language in the belief of the Muslims.

---

<sup>18</sup> Badawi (1973) identifies Arabic five levels of Arabic: 1. Classical Arabic, 2. Modern Standard Arabic, 3. Educated Spoken Arabic, 4. Semiliterate Spoken Arabic, and 5. Illiterate Spoken Arabic (p. 89).

### 2.3.1.2 Modern Standard Arabic

The concept ‘Modern Standard Arabic’, MSA for short, is rather odd for the majority of Arabs who see it as *Fus-ha* (Classical) Arabic itself. Such a concept has become recurrently used by language specialists especially in western linguistic literature about Arabic (though it is now adopted locally by a large number of native researchers). In a way, one may argue that MSA is the legal progeny of the press (a reason to label it ‘language of newspapers’) and the variety used in printed Arabic publications, education, government, and the media.

An in-depth consideration of MSA would reveal that such a linguistic system is no other than a simplified and modernized version of Classical Arabic. Both of them should be better treated as close varieties instead of significantly different forms. The main differences relate to stylistics and vocabulary. While CA has a considerably large body of vocabulary<sup>19</sup>, MSA has a relatively smaller lexis which is mostly taken from the mother source. One important lexical aspect is that MSA includes ample instances of loanwords, such as /dʒuɾa:fja(h)/, /di:muɾa:fja(h)/, /kla:si:ki:/ /bju:lu:ʒja(h)/, examples are plus much else besides (Geography, demography, classical, biology, respectively). However, such a feature (i.e., language *modernisation*) is a natural and essential part of corpus planning (language development) which aims to meet contemporary communication needs (see section 1.2.2.2). The point with Arabic modernisation is that the terms that generally gain ground are borrowed from foreign sources (especially English and French) with or without morpho-syntactic integration into the host language; coined terms on the basis of Arabic may not compete the foreign term (see section 2.3.4). As far as phonology, rules of morphology and syntax are concerned, CA and MSA are very similar: they practically share the same sound system and follow the same grammar rules, with CA seen as the norm.

---

<sup>19</sup> *Lisān al-Arab Dictionary* counts tens of words to refer to lion, horse, sword, etc. Ancient Arabs used numerous items to name something they revered although some lexicographers state that each item has a different meaning and no two items are fully synonymous.

CA and MSA can be grouped under the designation ‘Standard Arabic’ (henceforth SA)<sup>20</sup>, ‘literary Arabic’ or ‘Fus-ha Arabic’ since recognizing MSA as a different variety is still a matter of debate. In this sense, SA is the prestigious variety and the one which is politically promoted in all Arab nations. Being mutually intelligible<sup>21</sup>, SA serves as a lingua franca across the Arabic-speaking states, a reason to use it in official encounters (e.g. summits of the League of Arab States).

### 2.3.1.3 Educated Spoken Arabic

Educated Spoken Arabic (henceforth ESA) is also known as ‘middle Arabic’, ‘the elevated colloquial’, etc; the equivalent Arabic term which denotes such a variety is ‘al-lugha al-wustaa’ (the middle language). This is a hybrid language as it “is the interplay of written Arabic and vernacular Arabic(s)” (Mitchell, 1986: 8). ESA is basically used by educated native speakers and is “employed for semiformal discussions, and on other social occasions when the colloquial is deemed too informal, and the literary, too stilted” (Ryding, 1991: 212).

However, one may question whether the so-called ESA is actually a variety on its own or not. In fact, it will not be illogical to think of it as a case of diglossic/interlingual switching (as opposed to cross-linguistic switching which occurs between two different languages). It is normal for educated people to switch back and forth between the acrolect (standard) and the basilect (vernacular) when they come to converse. Here, switching may serve definite functions. For example, speakers of less intelligible regional/national dialects may opt for SA to bridge the linguistic differences. Blanc (1960) reveals that ESA is largely close to Colloquial Arabic; it takes from SA vocabulary more than anything else. This translates that

---

<sup>3</sup> The label ‘SA’ will be used throughout this chapter for short purposes. CA, MSA will be used only when the context necessitates precision.

<sup>21</sup> SA is actually intelligible to all educated speakers in and outside the Arab World. The main difference may relate to pronunciation, i.e. SA may be realized with different accents. Also, some vocabulary used in North Africa has other equivalents in other parts of the Arab World. For instance, while the item /ṭama:ṭim/ (tomato) is largely used in the Maghreb, /banadu:ra/ is the prevalent word in Levantine Arabic.

educated speakers may switch to SA when they are faced with the issue of lexical gaps in the colloquial.

ESA has received a lot of scholarly attention, particularly outside the Arab World. The diglossic nature of Arabic pushed some researchers to encourage the teaching of such a form in foreign institutions. According to Bishai (1966), ESA has become the language of choice for most spoken Arabic training at the Foreign Service Institute (FSI) of the US State Department (in Ryding, 1991:214).

#### **2.3.1.4 Colloquial Arabic**

Colloquial Arabic incorporates the many *regional* dialects (no real sociolects are identified) scattered throughout the Arab World. Such dialects form a geographical continuum; the further we move from one point to another in a particular direction, the larger linguistic differences will become. Within the same Arabic-speaking country, there may exist a variety of regional dialects with slight to significant differences at one or more levels of linguistic analysis.

As it has been highlighted earlier, the identification of more than two varieties is still arguable among the native linguists. Whether we insist on the existence of two varieties or we accept a larger continuum, in both cases we would agree that Arabic is a diglossic language. In what ensues, we provide a general account of Arabic diglossia with focus on Algeria as a representative instance.

#### **2.3.2 Arabic: a Diglossic Language**

Although William Marçais (1930) was one of the pioneers to introduce the term ‘diglossie’ to describe the linguistic situation in the Arab World, the sociolinguistic concept of diglossia gained currency with Charles Ferguson and his influential article of 1959, in which diglossia is used to refer to a situation “where two varieties of a language exist side by side throughout the community, with each having a definite role to play” (Ferguson, 1972:232). Ferguson’s definition makes a division between a High (H) variety and a Low (L) variety- both are linguistically

related to, but significantly different from, one another (Trudgill, 2003). Ferguson set out to expound this sociolinguistic condition under nine headings which are prioritized according to function, prestige, literary heritage, acquisition, standardization, stability, grammar, lexicon, and phonology. The functional distribution, or the specialization of function, is the chief feature of diglossia. To characterize the H and L varieties does not pose a serious problem, suffice it to say that “H and L have disjoint functions: where H is appropriate, L is inappropriate and vice versa” (Sebba 2011: 450).

What should be stressed is that Ferguson’s (1959) conceptualization is not always valid nor is it enough comprehensive to cover all diglossic speech communities as it has a number of flaws which have since been pointed out. In some situations, the nine rubrics listed above meet Ferguson’s suggestions, in some others only some rubrics are met and the others are missed<sup>22</sup>.

By 1967 Ferguson’s original discussion, what is now referred to as ‘classic’ or ‘narrow’ diglossia (Myers-Scotton, 1986), had undergone some changes when Fishman refined the definition arguing that diglossia can also be extended to cover situations where two (or more) genetically unrelated or at least historically distant language varieties occupy the H and L niches (Schiffman, 2004); this is referred to as ‘extended diglossia’. However, Fishman (1967) emphasizes a neat distinction between diglossia and bilingualism, arguing that the former is a feature of society to be dealt with by sociologists and sociolinguists, whereas the latter is a matter for psychologists and psycholinguists as it refers to an individual’s ability to behave linguistically in more than one code. By 1980, Fishman listed four taxonomies which may hold between the H and L varieties:

1. Ferguson’s (1959) original conceptualization, such as in the case of Arabic (CA vs. Vernacular Arabic).

---

<sup>22</sup> Dealing with the criterion of prestige in Switzerland, Hogg *et al.* (1984: 187) observe that “[w]e would maintain that High German is *not* afforded greater prestige or status than Swiss German, and therefore that German Switzerland does not constitute an example, or indeed defining case, of diglossia.”

2. H and L are genetically unrelated: H is the classical variety and L is the vernacular, such as textual Hebrew (as H) and Yiddish (as L).

3. H and L are unrelated: H is written and formally spoken and L is vernacular, such as Spanish and Guarani in Paraguay. (Fishman, 1971).

4. H and L are related: H is written and formally spoken and L is a vernacular, such as Standard English and Caribbean Creole. (Fishman, 1980).

The point which should be emphasized is that both linguists, i.e., Ferguson and Fishman, insist on the core theoretical claim, with H being reserved for formal contexts and L designed for informal situations, and, as Fasold (1984: 53) puts it, “only function remains unchallenged; it is the very heart and soul of the diglossia concept”. In what follows, we discuss Arabic diglossia with reference to Algeria as a case in point.

In Algeria, three languages (Arabic, Berber and French) compete one another depending on the geographical region, social group and domain of use. Algeria not only represents classic diglossia but is also a defining case of extended diglossia. The following figure provides a simple, yet interesting, characterization of diglossia in Algeria:

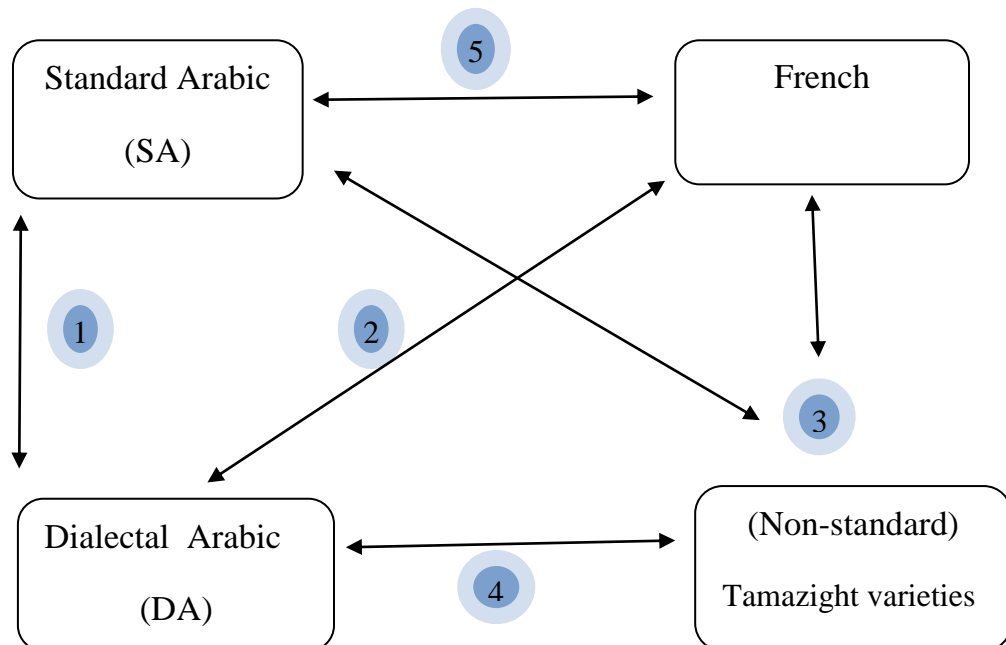


Fig.2.1 Characterization of Diglossia in Algeria (adapted from Djennane, 2014)

Figure 2.1 tells that:

(1) Classic diglossia is commonly attested in Arabophone geographical areas and concerns SA and Dialectal (Algerian) Arabic. SA, the official language of the state, is allocated to formal usage; Dialectal Arabic is ascribed to informality and is typically used in casual conversations.

(2) Extended diglossia basically concerns Arabophone areas where French is the H variety and DA is the L variety. Though it has no constitutional stand, French is a workable language that fulfils formal and official linguistic tasks along SA. Considering higher education as an instance, French is indeed the medium of instruction in a number of faculties in the Algerian university. Lectures in technical and scientific majors, such as architecture, civil engineering, computer sciences, etc, are all exclusively conducted in French. In such contexts, French is allocated to formal usage, namely instruction/learning and thus has the H function. Algerian Arabic (AA) is the L, the vehicle of communication amongst learners outside the classroom.

(3) Extended *triglossia* is a unique feature of Berberophone regions. In such localities, SA and French, like in other parts of the country, are used in government official domains, administration and education and thus have the H functions, whereas local Berber varieties (such as Kabyle, Mzabi and Shawi)- which are historically distant to Arabic and French- play the role of the L variety, being the day to day idioms of communication. Here, it is of prime importance to mention that the attitudes towards SA or French may differ among individuals; it would be unsound to assert that the L variety (Berber vernaculars) is downgraded.

(4) Dialectal Arabic is also used in Berberophone areas either for in-group local communication (i.e., between the Berbers) or for out-group communication (i.e., communication with Arabophones). This is a form of bidialectalism.

(5) The H-L relationship does not hold between SA and French; this is rather a case of *de facto* (societal) bilingualism. Both varieties have H functions and are held in high esteem.

In sum, Algeria provides an illustrative case of what Fishman (1967) calls in his theoretical construction ‘diglossia with bilingualism’ and ‘bilingualism with diglossia’. In fact, rare are the cases of bilingualism without diglossia. The distinction between bilingualism and diglossia has also been taken up by Francescato (1986: 396), who sees it difficult to tell the two phenomena apart because “the speaker perceives the linguistic diversity in terms of the diversity of roles and statuses of the participants in the situation”. Hence, when linguistic diversity is used for different social functions it may be referred to either as bilingualism or diglossia. The one and only clue to the distinction, as originally suggested by Ferguson (1959), is the degree of similarity between the given linguistic variants. Thus, building on Fishman’s idea (1967), it is better to presuppose an amalgamation of bilingualism with diglossia rather than without diglossia.

### 2.3.3 Diglossia’s Implications on Education

Diglossia has attracted scholars’ interest from different perspectives; one of which builds upon pedagogical bases and the situation in the Arab World seems to draw most attention. A number of researchers in, but mostly outside, the Arab World see diglossia as a vexing problem with severe impacts on education, and many among them attribute the low education results and high illiteracy rates in the Arab countries to the use of Standard Arabic in formal schooling (e.g. Maamouri, 1998; Ayari, 1996). This is made on the ground of a variety of reasons, especially that:

- ✓ SA (as an instance of ‘H’ in diglossic communities) is the mother tongue of no sector in the community, and children usually become aware of it until school age (a ‘*learned*’ variety). Colloquial Arabic, which is highly stigmatized, is the genuine mother tongue which is naturally *acquired* and used on a daily basis;
- ✓ The vernacular, which is the actual L1, is significantly different from the literary form (e.g. Abu-Rabia, 2000; Saiegh-Haddad, 2003).



Such state of affairs has urged several linguists and language educators to put forward that SA creates a serious challenge to learners and teachers alike in that it delays literacy acquisition and challenges the instructor to define his goals. Many researchers (e.g. Maamouri, 1998; Saiegh-Haddad, 2003) principally dealt with the effects of early exposure to literary Arabic texts and the problems it engenders on 'reading comprehension'. This builds on the motto that the best way for efficient literacy is via the mother language. The schoolchild finds it less challenging to learn to read (and write) a form which is the same or very close to the language which he has grown up speaking as this child is to a large extent learning to associate written symbols with the vernacular he already speaks (Verhoeven 1994a:10). This is far from being the case in diglossic contexts where the differences between the child's everyday (spoken) language and the written language might be very large.

Considering Algeria as a diglossic instance, there undoubtedly are stark linguistic differences between SA and (Algerian) Colloquial Arabic at all levels of linguistic analysis. It is not surprising that an Algerian young child feels the inconsistency between the school vocabulary and what he already has prior linguistic knowledge of. Words like /ʒarrara/, /mu:s/, /quṭi/, to name but a few (tyre, knife, bottle, respectively) have different counterparts in SA (/ʕaʒala/, /sikki:n/, /ʕulba(h)/, respectively). Also, many loanwords are part of Algerian Arabic, some of which have even been integrated into Arabic grammar. Words like /ṭabla/, /Kuzina/, /baṭīma/, /kamju/, vélo, etc (table, kitchen, building, track, bicycle, respectively) form an integral part of the child's mental dictionary and, of course, such items are not incorporated in SA (some other linguistic borrowings are now established in the standard language). Such a situation certainly generates an effort-demanding and time-consuming learning context for the young child who has to learn concurrently the new words and the graphic representations instead of only connecting the written form to what he already stores its verbal representation. This led some researchers (e.g. Ayari, 1996; Eviatar & Ibrahim, 2000) to equate between learning SA and learning a second language.

The language education policy in the Arab World is in sharp contrast with linguistic policies in, for example, Moldavia, Georgia and other ex-Soviet Republics. During the Soviet regime, these countries developed education policies in which the written language or, say, medium of instruction is directly based on the local spoken language (Pool, 1978; Simon, 1991). The Arab world is also linguistically different from ‘standard with dialect’ communities, such as England and France, in which the standard variety is the mother tongue of a section of the population. With regard to ‘standard with dialect’ communities, Myhill (2009) reports that “[t]he countries with situations of this type which I was able to investigate have basic literacy rates of around 99%, and I was not able to find studies suggesting that **basic** literacy is lower in such countries for people who speak nonstandard dialects than for people who speak the standard dialect” (p.11). In these contexts, the language of the school resembles to a great extent the language of the home and the street in which children are more likely to hear the same words, phrases, and sentences they confront in a story or a novella. Diglossic languages where H and L are significantly divergent do not furnish such advantages. Maamouri (1998) dramatizes such learning condition stating that children “learn to read instead of read to learn” (p. 45)

Myhill (2009) investigated the direct liaison between diglossia and low literacy on the basis of three language pairs: Maltese with Arabic, Tajik with Persian, and Demotiki with Katharevousa. The first varieties in the three pairs are considered dialects of the second (standard) varieties. At a point, Arabic, Persian and Katharevousa were used for literacy in Malta, Tajikistan and Greece, respectively. Along the line, the dialects have been standardized and developed written traditions based upon the spoken form. Today, the literacy rate for Maltese is 87.9%; Tajikistan, 99.5%; non-diglossic Greece (2006), 96%. The diglossic counterpart of each example where the H variety is still used as medium of instruction shows lower literacy rates: 70.3% in the Arab states; 82.4% in Iran; 86% in diglossic Greece of the year 1971 (Myhill, *ibid*). Commenting on such findings, Myhill (*ibid*: 16) has this to say:

My best guess at present is that this is because in these cases—and **only** in these cases—the standard (H) language is not based upon any group’s contemporary usage but rather upon older texts and grammatical rules which grammarians have constructed, in principle upon the basis of these texts. It may have been the case that these texts were based upon an **earlier** spoken version of the language, although it is not clear that this is the case. (Bold in the original)

As far as Arabic is concerned, discussion of diglossia and literacy should not exclude at least three facts, as highlighted below:

1. The first point concerns the linguistic differences between the language of instruction and the language of everyday communication. It is a fact that the differences between SA and Colloquial Arabic are sometimes great. However, such varieties are actually close to, rather than divergent from, one another. One may dare to say confidently that large numbers of the colloquial vocabulary are part of SA, and such items, though they may include some degree of phonological and/or morpho-syntactic dissimilarities, are well comprehended by the young learners. Overestimating the ‘foreignness’ of SA would be unfair, and to consider such difference as grave as that between, for example, English and German is excessive. Although her research clearly shows the negative impact of diglossia on literacy, Dakwar (2005) provides some instances that nullify the claimed foreignness of SA. She reports that many students acknowledge the similarities between SA and Palestinian Colloquial Arabic (PCA). As an illustration, an 8-year-old boy in the second grade reported: “I do not find it hard. It is really easy, not like English or German because everybody speaks Arabic with me. They are very close to each other.” (in Dakwar, 2005:82). A 9-year-old girl in third grade remarked: “In English you need to spell the words and learn the meaning. In Arabic it is very close to what you say” (in Dakwar, *ibid*). Dakwar (*ibid*) confirms that “the similarities between [Standard Arabic] and PCA serve positively and assist children in learning [the former], specifically at the elementary school grade levels where their [Standard Arabic] is still developing” (p.83). However, generalizability of Dakwar’s findings remains problematic in that the degree of distance between PCA and SA is

not essentially the same between SA and other vernaculars of Arabic; the degree of closeness differs from one region to another and from one Arab state to another. But even if a substantial distance between the standard and the vernacular exists, Myhill (2009: 2) confirms that:

This question has not been systematically investigated. In fact, there have been relatively few studies of the effect of linguistic difference within the same language upon the acquisition of literacy, and what studies have been done have only addressed this issue within a single language [...] so that their findings cannot be incorporated into a general framework for understanding linguistic factors affecting the acquisition of literacy

Again, although numerous investigators allege that Arab children have no acquaintance with SA until they join schools (Holes, 1995; Suleiman, 1986), they do have some “exposure before entering school through television programs and literacy events, such as contact with stories, letters, and street signs. However, this exposure might be relatively limited depending on the child's environment.” (Dakwar, 2005:76).

2. Secondly, it seems that diglossia basically affects reading attainment more than anything else. As a matter of fact, when inspecting reading literacy achievement in Israel, Zuzovsky (2008) exposes low results of Arabic-speaking schools when compared to Hebrew-speaking schools, concluding that the existence of diglossia typical of the Arabic language is the main cause of such achievement gap. However, Zuzovsky (ibid) shows that students’ achievement in mathematics and science is mostly alike, and even higher in favour of Arabic-speaking students.

3. Diglossia indisputably is a factor that appreciably contributes, but it certainly is not the one and only justification that accounts for low literacy rates and poor quality education. It would be unsound to put the blame solely on diglossia. The Alecso’s (Arab League Educational, Cultural and Scientific Organization) report of 2005 denotes that about seventy million Arab people are illiterate. The number seems astonishing, and in fact it is, but it is not that outrageous if the causes are further inspected, especially if the ‘extra-linguistic’ factors are taken into

account. Colonialism is an important historical factor which usually follows illiteracy policies towards the locals. A few decades ago (late 1950s and early 1960s), virtually all Arab countries were either under direct colonialism (e.g. Algeria) or protectorates (e.g. Morocco), and therefore low literacy rates are expected in these states since overhauling the situation requires time and efficient intervention. Right after independence, Arab countries have tried to fight this colonial hangover, and as an illustration, the same Alecso's report of 2005 mentions that the ratio of illiterate Arab people decreased from 73% in 1970 to 35% in 2005.

Besides colonialism, other reasons are worth considering, such as poverty and low standards of living. Indeed, current censuses like the UNESCO's adult literacy rate for population 15+ (August 2015) demonstrate that the rich petroleum Gulf countries like Kuwait and United Arab Emirates have higher literacy rates (96.2 % and 93.8 %, respectively), whereas poor countries like Mauritania and Yemen come on the heap of low rates (52.1% and 70.1%, respectively). Poverty is tightly associated with other features like weak infrastructure and limited education budget. Other extra-academic reasons may relate to the difficult conditions in a number of countries: the long Palestinian struggle against Israel; Iraq suffered from a long blockade ended with an American invasion; Algeria went through a bloody-decade which paved the way for illiteracy conditions to take place (school damages, elite threatening, brain drain); the so called *Arab Spring* will certainly increase the number of illiterate people in the Arab World.

### **2.3.3.1 What Alternative(s)?**

A number of proposals have been suggested to cope with diglossia and its negative repercussions on quality education. These proposals have been first discussed with reference to Arabic as a foreign language (AFL). In other words, most proposals came either from western linguists or Arab linguists with a western education. Accordingly, AFL professions have postulated three main suggestions but no consensus could be met:

1. Although he acknowledges the verity that SA is not used for everyday conversation, Alish (1989), among others, observes that SA is the substratum of learning the Arabic language as it gives the foreign learner “the advantage of learning the language that is readily understood everywhere in the Arab Middle East. Learning this form of Arabic lets the learner identify with the educated population and have access to the literature and the written and spoken media.” (p. 6).

2. The other, say, opposing proposal defends the view that SA should not be promoted by education systems. When discussing Arabic programmes in the USA, Palmer (2007) supports the idea that such programmes must promote the teaching of Colloquial Arabic into their curricula. Such a view is made upon the point that SA “creates a fake model of oral proficiency by presenting the students with an artificial variety that is not used by the native speakers” for daily-life communication (Al-Batal, 1995:123).

3. The third proposal tends to blend the two previous suggestions. Younes (1995), for example, proposes that students “should be introduced to both a spoken Arabic dialect and [Standard Arabic] from the beginning of an Arabic course” if they hope to function competently in Arabic (p. 233).

### **2.3.3.2 Critique**

On the basis that several researches attribute low literacy rates in the Arab World to the persistence of diglossia, perhaps the most outstanding proposal to repair the situation would be promoting Colloquial Arabic in schools to the exclusion, or at least restriction, of the standard variety. A proposal of such a kind may seem logical for a better literacy as the vernacular is the genuine mother tongue of Arab children. But upgrading a vernacular, if it is to be implemented, is no easy task. This makes it a must to go through a whole language standardisation process.

First, in terms of selection, which regional variety to choose? It is acknowledged that the sum of Arabic dialects constitutes a continuum. But it is also true that every Arab state exposes a number of regional dialects, each with specific linguistic traits to the extent that dialects are sometimes closer to SA than they are towards one another. Accordingly, the first issue would be whether one regional dialect (e.g. the tongue of the capital city) should be picked up or the selected variety should be an amalgam of the different varieties.

Secondly, in terms of codification, what accent should enjoy high esteem? What syntactic structures and morphological forms are to be permitted? What regional vocabulary of identical meaning is to be favoured?

Then, in terms of education, can the prerequisites Bowers (1968) proposes be met (basic teaching and reading materials, accepted writing system, and teachers who master that variety)? Even if teachers are supposedly competent users of the vernacular (mother tongue), the bulk of Arabic literature (books, articles, etc) exists in SA. Also, dialects of Arabic are not written and even when they are (e.g. folk literature), they depend on the letters of the standard form.

Last but not least, standardisation of a dialect must consider the degree of social *acceptance*. It is a verity that the vernacular is subject to stereotypes and negative connotations, being seen as “a substandard, low-status, often rustic form of language, generally associated with the peasantry, the working class, or other groups lacking in prestige (Chambers & Trudgill, 1998:3). With no doubt, “Arabs’ attitudes towards the state of their language adhere to a generally unconcerned pattern: the only language whose existence is socially acknowledged is the prestigious MSA, whereas DA [Dialectal Arabic] has historically never been given much importance or recognition, since it has always been considered a bastardization of the original, ‘pure’ language” (Horn, 2015:101). In this respect, Versteegh (2004:132) writes:

It remains difficult in the Arab world to arouse interest in the dialects as a serious object of study. Many speakers of Arabic still feel that the dialect is a variety of language without a grammar [...] and even in the universities there is a certain reluctance to accept dialect studies as a dissertation subject.

Thus, the fourth component of language standardisation, i.e. acceptance, would be a very challenging element to meet in the overall standardisation process.

Working on promoting Arabic dialects in the education system is actually an old enterprise (see Zughoul, 2007 for a detailed account). As Zughoul (2007) argues, the idea is of foreign origin and has been supported by many Western researchers to be adopted later by, say, westernized Arab researchers who worked in foreign institutions and/or received education in a western country. As such, the native Arab may perceive the idea as a ‘plot’ against Arabic. Zughoul (ibid), for instance, equates between the crusades and western encouragement of the promotion of national dialects at the expense of Standard Arabic. Zughoul (ibid) recognizes three periods that revolve around the standard-dialect conflict, as discussed below:

1. Period of Western interest: since the 1720s, a number of European institutions in Austria, Britain, Italy, France and Russia elaborated programmes to teach the vernacular relying on Arab teachers.

2. Period of nationalism: this period was characterized by the feeling of nationalism. In some parts of the Arab World, mostly in Egypt and the Levant, a number of writers opted for the promotion of the local dialects to serve as national languages and indexes of identity. Some wrote in the vernacular, some others worked on elaborating dictionaries for the dialect, and still others went further to propose substituting Arabic letters by Latin alphabet.

3. Period of Arab Awareness: after WWII and with the rise of independence waves in the Arab World, there was a clear refusal of the idea of dialect standardisation. Instead, the interest moved towards the instauration and facilitation of the standard language.



Although such efforts could not discard SA and no dialect could join the status of national language, the philosophy of dialect standardisation still persists. This is obvious if one scrutinizes the media language in some countries. A noticeable feature is that all translated movies, series, TV shows, etc, imported from non-Arabic-speaking countries, were previously (approximately toward the end of the last millennium) presented on the public TV in Standard Arabic. Now, with increased desire for promoting national dialects, many of such programmes appear in the local vernaculars. Turkish series, which have a huge number of fans in the Arab World, are currently presented in Lebanese Arabic; some cartoons are delivered in Egyptian Arabic; and still a number of Mexican series appear in Moroccan Arabic.

As far as Algeria is concerned, promoting Colloquial Arabic in schools (at least after independence) did not receive the same *apparent* efforts like in the Middle East and the Levant. However, calls for such a project have always been present (e.g. Benrabah, 1999). In his interview to Algeria Channel, Othmane Saadi (2015) mentions that a proposal of such a kind came first from Benzaghrou (member in the Commission of Education) during the Fourth Congress of the FLN in 1979, but it did not receive any support. Perhaps the most daring, or reckless, offer came from the current minister of National Education (Nouria Benghabrit) when she declared that the National Forum of the Ministry of National Education ended up with a *decision* to use colloquial Arabic in the first and second grades (primary school). The minister found herself in an embarrassing situation right after such a declaration (August 2<sup>nd</sup>, 2015). She faced intense reactions from political parties, teachers unions, educationalists, and many calls were voiced to sweep her away from the executive body. In fact, the minister became a subject of mockery even for the illiterate lay. In a defensive comeback through which she looked for social reconciliation, the minister declared that her declaration was misinterpreted and the use of Colloquial Arabic was no other than a *recommendation*. The heated social reactions provided clear indications about the status of Standard Arabic in the eyes of people. Even if a recommendation to use Colloquial Arabic at the beginning

years of schooling might be legitimate, people are not ready to accept it especially when it comes from Benzaghrou or Benghabrit (among others) as they are socially thought of as Francophile people who do not hide their support to French at the expense of Arabic. Promoting dialects in schools is a way to weaken Arabic as it is only in the school where Literary Arabic is truly used.

Many Arab scholars and language guardians perceive the development of regional dialects a direct menace to the standard variety. A usual explanation for such a view is that Standard Arabic may undergo a language shift process similar to what Latin faced centuries ago. Increased nationalism movements in France, Spain, and ex Latin-speaking countries led to the development of local varieties in these states, resulting in what is now called *Romance languages*. Latin, which was at a point the superposed variety and the language of literacy and science throughout the Roman Empire, is now largely restricted to liturgical practices in the Catholic Church.

The situation would not be unnatural if any Arabic dialect was standardized and made national language of an Arabic-speaking country. This scenario would lead to a number of Arabics, each with its own linguistic characteristics. Mutual intelligibility might be met in some cases and missed in others as the different national dialects are diffused on a large geographical area that stretches from the Ocean (Morocco) to the Gulf (Iraq). Though such dialects form a continuum, mutual intelligibility reduces the further you move from a point to another in a particular direction (e.g. dialects of the Maghreb are significantly different from those of the Levant). In fact, Malta is found a defining case of (Arabic) language loss<sup>23</sup>. Standard Arabic, which was in the past the H variety in Malta, disappeared and has been replaced by its linguistically related L variety, i.e. Maltese (Brincat, 2005). This latter is now a standard language, written in Latin alphabets and unintelligible to Arabic speakers.

---

<sup>23</sup> Some writers prefer the term 'language loss' to refer to situations where total shift occurs in only one of the communities speaking the language. This is contrasted with 'language death' which means the extinction of a language from the world (Trudgill, 1992).

It is obvious that (Arab) Muslims, being literate or illiterate, do care about Standard Arabic due to its direct association with the Quran (sacred book) and religious practices (e.g. daily prayers). In this respect, Horn (2015:103) observes that “religion is unquestionably the most tenacious, amalgamating energy in a set of very diverse peoples: and Islam’s language is MSA. Its complete disappearance cannot be too imminent”. This implies that there is no chance for Colloquial Arabic to replace Standard Arabic as long as this latter remains the one and only language of religious texts and (oral) practices. For Muslims, Quran is the words of God. Accordingly, it should be kept in its original version. This is a reason why non-Arab Muslims worldwide use Arabic words when, for example, praying though they may not understand the meaning of what they say (verses of the Quran).

In the Islamic tradition, the preservation of the Quran is undertaken by God, as obviously stated in Chapter Al-hidjr: “Verily We: It is We Who have sent down the *Dhikr* (i.e. the Qur'an) and surely, We will guard it (from corruption)” (Verse 9). It is a verity that more than 14 centuries have elapsed and the Quran still preserves the original words; no additions or alterations occurred on the first version. Any attempt to modify the sacred book, including providing a version in Colloquial Arabic, will not be socially tolerated. Ferguson (1959, 1996) mentions that the translation of the New Testament into the Greek L variety (*dhimotikí*) “was the occasion for serious rioting in Greece in 1903” (Ferguson, 1996: 29). Wardhaugh (1992) argues that there exist similar reactions in modern English in the sense that many English speakers “resist the Bible in any form other than the King James version” (p. 92).

Though the Quran has been translated into many languages, Arabic linguists insist on the point that the Quran can only be *interpreted* but not translated. This is logical for the simple reason that many Arabic words have no equivalents in other languages and therefore translating the Quran cannot be authentically achieved. The following example, taken from the Quran (Chapter Fussilat, Verse 46) may suffice (Arabic text in phonetic symbols): /wa ma: rabbuka bi<sup>d</sup>allamin lilçabi:d/. The English translation is “And your Lord is not ever *unjust* to [His] servants”. The

French version is: “Ton Seigneur, cependant, n'est point *injuste* envers les serviteurs”. The adjective ‘unjust’ and ‘injuste’ in English and French respectively are the equivalents of the Arabic adjective /ḍa:lim/, but not /ḍalla:m/. This is a reason to refute the translation of Quran as replacing words in the source language by other closely related words in the target language is illogical. This is made stronger when the semantic rule “no two words are fully synonymous” is regarded.

In sum, linguistically homogeneous communities are the exception rather than the norm. By contrast, diglossia is indeed the rule throughout the vast majority of world languages (see Fishman’s 1967 further elaboration of diglossia). Studies of language variation generally expose facts about the existence of a standard variety alongside a number of dialects with significant linguistic differences (standard-with-dialects communities). Therefore, before thinking of promoting Arabic dialects, it is worth considering whether or not such communities, including America, England, France, etc, build their education systems on dialects or at least incorporate them in their syllabi.

#### **2.4.2.3 A Logical Option**

Since developing regional/national dialects of Arabic is a highly complex process, and because the dialect is still far from receiving social approval, why not think the other way round, i.e. increasing the use of Standard Arabic colloquially, starting from the home? If this is to be encouraged and reinforced, the time-depth factor may lead to a linguistically homogeneous speech community in which the language of the school is itself the language of the street. The motivation for this is that standard languages worldwide were only dialects. Through a process of standardisation, such dialects (spoken by the powerful) were politically favoured (selection), codified and then imposed at a national level. Now, in France, England, Germany, and so forth, significant portions of the population acquire French, English, and German, respectively as their mother tongues, although various other non-standard varieties still exist.

Promoting SA in ‘L’ contexts is perhaps the only optimal solution to get around the diglossic issue. This can be effectively implemented at early ages. Children come to the world equipped with an innate predisposition to acquire language (Chomsky, 1965: 25). Psycholinguists agree that such capability is very high at early ages to the extent that two or more languages can be simultaneously acquired (e.g. Paradis, 2010; Penfield & Roberts, 1959). Furthermore, young children are able to differentiate the languages they are exposed to and have been shown to switch-code with regard to their conversant (Genesee, 2006). However, researchers found that the brain’s plasticity to acquire languages decreases after about age five to six as the brain moves to cognitive development (Paradis, 2004).

Based on the idea of ‘the younger=the better’, Dennane (1988, 1992) builds his theory to exploit the high instinctive capability in children to learn Standard Arabic at early ages (in Dennane, 2010). His experiment was first implemented on his own children (a boy and a girl), with whom the father used SA and the mother used Colloquial Arabic since babyhood. Dennane (ibid) concluded that his children acquired concurrently both varieties of Arabic, and they were able to know what variety should be used with what conversant. He extended the personal experience to cover two kindergartens, one in Kuwait, the other, in Damascus. In both contexts, similar results could be met, i.e. the young children of less than 6 years old could develop significant competence in SA. Dennane’s point is that young children must have maximum exposure to SA before the age of six (i.e. before formal schooling) allowing natural *acquisition* (instead of formal *learning*) to occur.

In her thesis which builds on Dennane’s experience, Jenkins (2001) found that the children who were submerged in preschool Standard Arabic immersion programmes (in Dennane’s kindergarten of Damascus) obtained better scores in reading, composition and other study subjects compared to their counterparts who enrolled in kindergartens where Dialectal Arabic is the medium of interaction. In the same vein, a five-year investigation in a kindergarten allowed Dendane (2013) to conclude that training the child two or three years before school age through a simple version of Standard Arabic using interactional methods, games, videos and songs allows for a gradual and efficient acquisition of a language variety that is very

close to the standard (a version identical to ESA). Dendane adds that the two-to-three years the children spend with their teacher revealed an interesting cognitive development and an encouraging readiness to deal with the school language and other content subjects. Dendane argues that elementary school teachers acknowledge that such learners do well when they begin their formal education. The above-mentioned studies are indexes that early exposure to SA fosters the linguistic abilities but also leads to cognitive development.

Not only do kindergartens help develop language awareness but also the media, especially educative TV channels. Now, many parents expose their children to TV programmes, often with the ultimate purpose to make children feel at ease ignoring that such programmes inevitably involve a linguistic contact. Such channels constitute *de facto* linguistic aid resources.

If early exposure to SA is supposed to reduce diglossia's repercussions on quality education, it is worthy to investigate the reasons beyond the persistence of diglossia. In fact, one main reason relates to the home in that "Arab children spend the first years of their lives in families [...] that consider it outlandish to speak to them in MSA" (Horn, 2015: 102). Abu-Rabia (2000) mentions that Colloquial Arabic is perpetuated in a catch-22 manner by the parents and educators alike, who think that the children are 'incapable' of understanding the structural complexity of Literary Arabic, and who have therefore more tendency to opt for the vernacular in their day-to-day interaction with the young children.

In sum, promoting H (SA) in the L (DA) contexts can be successfully implemented as a two-way process. In a top-down fashion, education authorities are urged to establish preparatory classes for children below six. Teachers in such classes must be trained to focus on the linguistic dimension as a crucial part in the preparation of young learners. In a bottom-up fashion, the parents are required to provide their children with maximum exposure to SA since the early years to ensure a natural acquisition of the acrolect.

### 2.3.4 Issues in the Modernisation of Standard Arabic

Corpus planning includes three main processes: graphisation, grammatication and lexication (see section 1.2.2.2). An important part of lexication relates to language modernisation which denotes the expansion of the lexicon by adding new words and expressions besides “the development of new styles and forms of discourse” (Ferguson, 1968:32). Although the need for modernisation differs from one language to another, such a process “set[s] a major challenge for all languages” (Spolsky, 1998: 70). In fact, it is in languages of developed countries that (lexical) modernisation begins as these countries are associated with innovations and discoveries which usually involve a linguistic dimension, i.e. need for new words to label novel objects and concepts.

As far as vocabulary modernisation is concerned, linguists (lexicographers) usually have three options at their disposal: coinage, semantic expansion (taking an existing (or old) word and giving it a new meaning, or simply borrowing from other languages (Spolsky, 1998). Of course, lending languages are those of the powerful. In other words, the lending-borrowing attributes depend on the degree of development that a country enjoys in sciences, technology, economy, etc. At a point, for instance, English was a heavy borrower as a result of foreign (French) subjugation - a reason “that today English contains twice as many words derived from French and Latin as from German” (Green, 2003:11). Now, English is assertively the world’s major lending language due to the supremacy of the Anglophone World headed by America and Britain.

Standard Arabic, like other languages, needs modernisation of its vocabulary in order to meet the necessities of contemporary communication. Because the Arab World is made up of *developing* countries, sciences are now translated into (but not from) Arabic. As such, elaboration of scientific terminology is one, if not *the*, major issue in the Arabization of sciences<sup>24</sup>. One of the chief issues with Arabic

---

<sup>24</sup> Because this thesis addresses the possibility to arabize sciences, elaboration of Arabic scientific terminology is taken as an instance. The problem of terminology modernization is not restricted to sciences, however. Also, focus is on lexical expansion; other aspects of language modernisation (e.g. styles) are not considered.

vocabulary modernisation lies in the difficulty to meet terminology unification which has resulted in a chaotic lexical situation. Arriving at a compromise on terms is hard to reach even within the one country, sometimes within the same institution. To put it another way, the same object or concept may be referred to by a variety of terms which may sound synonymous (recall that no two words are perfect synonyms). The point is that the scientific register requires precision in terminology and refutes vagueness. A. Djebbari (2005), for example, provides a number of instances in which the English term has one French equivalent but more than two corresponding Arabic terms; suffice it to mention those terms related to the computer: English 'server' corresponds to French 'serveur' but to four Arabic terms (/mulaqqim/, /muzawwid/, /χa:dim/ and /miχda:m/). Such terminology conundrum creates variation and may blind people in literature searches.

This lexical chaos can be attributed to two major factors: (i) the method followed (ii) and the persons involved in lexical elaboration. As for this latter factor, translators, linguists, writers, researchers, teachers, journalists, etc are all contributors in the making and diffusion of the new terms. In the case of sciences, Arab writers and/or translators (usually non-language specialists) may focus on the content to the exclusion of the linguistic dimension. The fact that English is the dominant foreign language in the Middle East and the Arab Gulf, and French is the prevalent foreign language in the Maghreb makes Arab writers rely on different language resources when they translate. The dependence on different resources is one way to terminology variation. Of course, this is a weakness which is supposed to be surrounded by official language bodies. Although cooperation between academies/councils of the Arabic language throughout the Arab World is encouraged, the terminology issue still persists.

As far as the methods of lexical modernisation are concerned, there is sometimes a heavy reliance on foreign languages, especially English and French. In other words, writers (including academicians) may have a strong tendency to use the foreign (original) terms with/without integration into Arabic grammar. This may be the case even when there is a corresponding equivalent Arabic term. As an illustration, science textbooks designed for secondary schools in Algeria make use



of the loanword *cytoplasm* although its equivalent Arabic term /huju:la(h)/ is actually established in Standard Arabic. In fact, it is possible that the writer uses the two terms interchangeably in the same textbook.

Borrowing is certainly the simplest way to introduce new terms to a language. However, this is the least favourite option for the native *purist* linguists who only approve (total) reliance on indigenous resources. Arabic protectionists insist on using pure Arabic words to name anything new, be it a concept or an object. The justification is to keep the purity of the language. Proponents of linguistic purism see that borrowing must be kept as the last option that may be used only when other alternatives cannot be met. Thus, it is no wonder that words like /raskala/, /talfana/, /mikanizma:t/, to mention but a few (recycling, to telephone, and mechanisms, respectively), which are used at a large scale especially in the mass media, are definitely rejected by the purists for they are of a gratuitous nature. Such loanwords correspond to what Myers-Scotton (2006) calls *core borrowings* (as opposed to cultural borrowings). Myers-Scotton (ibid) argues that one reason of introducing words that duplicate items in the host language is “cultural pressure” (p.215). In fact, efforts towards linguistic purism are witnessed everywhere. This can be exemplified with reference to the continuous endeavour of the Academie Française to rid French from foreign influences. Another instance may relate to Ataturk’s Turkey which fostered a strong demand to purge Turkish from Arabic and Persian linguistic elements (Heyd, 1954).

Since overpopulating the language with foreign elements is not recommended, translation becomes a possible solution. Calquing (word for word translation) is another alternative. For example, the Arabic term /alħa:su:b/ (also called /alħa:sib/) is a calque of the English term ‘computer’. In the same way that ‘computer’ was subject to a semantic expansion (originally computer is someone who calculates), the Arabic term /alħa:sib/ also underwent the same process as it originally refers to the *doer* of the Arabic verb /ħasaba/ (to compute). Now, /alħa:su:b/ is an established word in Standard Arabic to the extent that native speakers often associate it with the second meaning (i.e. machine) more than the original meaning (i.e. the person).

Whatever the method used (borrowing, semantic expansion, calques, coinage, etc), the most significantly emphasized point among Arabic lexicographers is the need to meet terminology unification across the Arabic-speaking countries that share one standard language. Lexical variation in the scientific or technical registers is a major flaw and not a linguistic richness. The existence of more than one word to label an object or a concept makes the language users experience confusion and may fall in the trap of misunderstanding. The other emphasized point is to draw a dividing line between the seemingly synonymous terms and to keep consistency in terminology use. Linguists also stress the notion that the newly elaborated terms must obey Arabic grammar rules. An instance of the approved borrowed items which have been morpho-syntactically integrated into Arabic is, for example, the chemical term /ajju:n/ (ion). Through a process of derivation, Arabic obtained the dual form /ajjunajn/ (two ions), the plural form /ajjuna:t/ (ions), the verb /ajjana/ (to ionize), the noun /ta?ajjun/ (ionization), the adjective /mu?ajjan/ (ionized) for the masculine and /mu?ajjana(h)/ (ionized) for the feminine form.

In sum, the issue of terminology variation cannot be fixed without cooperation between the different academies of Arabic scattered throughout the Arab World. Such language bodies must also gain political support, i.e. obtaining top-down legislations that regulate translation and publication. This implies that any edition, especially school textbooks, must be subject to rigid linguistic control. This may help rationalize the issue of scientific lexical variation.

## 2.4 Tamazight in Algeria

Tamazight<sup>25</sup> (or Berber) is an umbrella term under which a number of linguistic varieties reside. Such idioms are chiefly *spoken* in parts of Morocco and Algeria, but they are also used in some other African countries, such as Libya, Mali, Mauritania, Niger, etc. The Amazigh people (Imazighen) are not Arabs, though they

---

<sup>25</sup> The label 'Tamazight' prevails in the writings of native (Algerian and Moroccan) researchers. The point is that such label might pose confusion in other contexts, namely in Morocco because the Central Atlas variety is referred to by its users as 'Tamazight'. 'Tamazight' and 'Berber' are used interchangeably throughout this thesis; the reason is that the first label appears in official documents, whereas the second label is widely used in western literature.

usually master Arabic and use it with equal ease. As far as Algeria is concerned, the precise number of Tamazight speakers is unknown as official population censuses do not consider language data. As such, what exists in the literature is no other than estimations. Chaker (2004), for examples, guesstimates that Berberophones form one-fourth (1/4) of the whole Algerian population<sup>26</sup>. The country counts different linguistic communities which are named after the variety they speak, and which are dispersed on discontinuous geographical localities cut off by Arabophone regions. The major varieties (in terms of users) which are generally recognized include<sup>27</sup>:

- Kabylian (Takbaylit): is spoken in the north (East of Algiers). This variety counts the highest number of speakers across the country compared to other varieties. It is mainly spoken in four wilayas (states), namely Tizi Ouzou, Bejaia, Bouira, and Boumerdès.
- Shawi (Tashawit): is localized in the South-East of Constantine, mainly in Batna, Khenchla and Oum-El-Bouaghi.
- Shenwi (tachenwit) : is a minority variety spoken in the Mountain of Chenwa (West of Algiers)
- Mzabi (Tamzabt): is localized in Ghardaïa and its surrounding agglomerations.
- Targui: is the language of Touareg, spoken in some remote spots of the Sahara like Ahaggar.

The fact that Tamazight has existed in Algeria for centuries, if not millennia, makes it a necessity to consider its political status.

---

<sup>26</sup> The existing estimations are of questionable validity. Ennaji (1997) and Ferkal (1996) provide significantly divergent estimations of the total number of Berberophones: while the former argues that they are around 17 million, the latter claims that they reach 30 million.

<sup>27</sup> This is not an exhaustive list as other (minor) varieties may also be recognized. Also, the spelling of each variety differs from one writer to another. While some writers may spell the words on the basis of French (e.g. Chaoui), others may adopt a spelling based on English phonetics (Shawi).

### 2.4.1 The Amazigh Fight for Recognition

As it has been mentioned elsewhere in this thesis, Algeria implemented a linguistic policy of Arabization right after its independence in 1962. While (Standard) Arabic was crowned as the sole official language of the state, Tamazight had always been put aside with no political mention. The central government did not show the least degree of tolerance with the linguistic question, and strict legislations were enacted with the aim to reinforce Arabic and oust other languages, namely French and Tamazight. In fact, anything which could bring Tamazight into light was rigidly controlled, including the TV, radio and newspapers. Amazigh names were forbidden by 1981. The Amazigh song had also no share in the public TV and radio. In his interview with the Algerian daily *Echorouk* (April 2014), the historian Arezki Ferrad reports how the Kabyle singer Taos Amrouche was forbidden from participation in the First Festival of the African Song which was organized in Algiers in the summer of 1969; this was an act of punishment due to her support for the Amazigh question. The school system had never considered Tamazight even in the regions where it is the dominant language.

The state's explicit negligence of the Amazigh culture and language as a component of the national identity gave a strong push for pan-Berberism to rise, especially in Kabylia. Because the regime was firm in its policy towards the Berber activists, complaints against the situation were voiced from the outside of the country with the aim to acquire international support. In 1967, a group of Berbers declared the foundation of the *Académie Berbère*. Such non-governmental body, which seats in Paris, "was an eye-opener for many Berbers" (El Aissati, 2005: 66). Another indigenous movement which started clandestinely is the *Movement Culturel Berbère* (MCB). However, Berber activists had to wait until April 20<sup>th</sup>, 1980 to explicitly declare a political mutiny on the regime. The cancelation of a lecture on ancient Kabyle poetry at the University of Tizi Ouzou (one of the major Berber-speaking regions in Algeria) organized by the famous Berber anthropologist Moloud Mammeri was the *overt* reason which led the students to manifest against the authority's cancelation of the talk and go on demonstrations which quickly spread to cover Kabylia. Such social outburst became a landmark in the history of

the region, of North Africa as a whole, known as the *Berber Spring*. As it was diffused by international media, the Berber demands met international support especially in France where the main activists reside.

Political recognition of aspects of the Amazigh culture remained beyond the reach before the 1990s. The hard line on Amazighity only begun to be softening after the events of October 1988 which marked the birth of a new political spectrum: the collapse of the single party system and the introduction of political pluralism. Increased social pressure during the 1990s forced the authorities to change the position towards the Berber question. The first significant achievement occurred during the presidency of Liamine Zeroual (1994-1999) who ordered, through a presidential decree (May 27<sup>th</sup>, 1995), the creation of the *Haut Commissariat à l'Amazighité* (HCA) -High Commission for Amazighity<sup>28</sup>. This was the outgrowth of a whole year of school boycott in Kabylia from September 1994 to April 1995 known as the *school-bag strike*. The strike ended when the authorities signed an agreement with the Berber activists and accepted the introduction of Tamazight in the school and the media (Benrabah, 2002).

However, the overt political reconciliation with the Berbers was not manifested in the constitution of 1996 (like the preceding constitutions of 1963, 1976, 1989) which does not recognize linguistic pluralism. Tamazight remained without mention though the preamble of this constitution obviously declares Amazighity as a component of the national identity. Such *symbolic* inclusion would not mitigate the Berber demands to institutionalize their language. Under the presidency of Bouteflika (1999- ), the Berber question made significant advancements. On April 10<sup>th</sup> 2002, Bouteflika signed a constitutional amendment which concerned article 3. While Arabic retained its status of (sole) official language, Berber was declared a *national* language. The newly recognized language has progressively gained ground and entered the public domains which were once in

---

<sup>28</sup> The newly established body reports directly to the presidency of the Republic since its creation. It is actually the first official institution in the Maghreb dedicated for the promotion of the Amazigh culture and language. A similar step was undertaken by the Moroccan authorities when they founded the Institut Royal de la Culture Amazighe (IRCAM) in October 2001.

the ‘unpermitted’ circle. Although Tamazight was introduced to the public TV since 1992 and reinforced during the years, a new era started in March 2009 with the launch of an entirely Berber-speaking *public* channel (Algerie 4 or TV Tamazight). Tamazight has also been introduced to the school; it is now even a field of study in higher education (see section 2.4.3).

The institutionalization of Tamazight as national language was targeted to meet pure political ends. This step came after the Kabylean manifestations (April 2001) which started in the city of Tizi Ouzou and reached the capital Algiers in few days. Two major reasons pushed the central government to calm down the angry Berbers (precisely Kabyleans). Firstly, Algeria witnessed a period of decline and great many socio-political upheavals, namely from 1988 to, say, 2002. After the historical defeat of the ruling party (FLN) against the Islamic Front of Salvation (FIS) in the first round in 1991, the authority cancelled the elections to avoid another beat which would put the ruling class aside. This *coup* on the people’s will opened the gate for an internal armed conflict, known among the Algerians as the ‘bloody/black decade’. With the advent of President Bouteflika in 1999, who immediately spelled out a political amnesty known as *La Concorde Nationale* (named later National Reconciliation), the country has started to live in stability. After the Berber riot in June 2001, the state was neither mighty enough nor willing to enter again internal conflicts. Though the first reason is a fact, perhaps the real reason behind such recognition is that things have changed enormously, and now we are living in a new world order where minority rights are defended. Decision-makers are aware that any oppression of the Berber calls may put the country in an embarrassing situation at the international scale, and foreign intervention in domestic affairs will be by then a possible scenario. This is justified by the previous Berber revolts (e.g.1980) when the demands were faced by the armed forces.

In fact, president Bouteflika was obliged to act against his will. This builds on the basis of his earlier public speeches. During a talk in Tizi Ouzou in September 1999, he argued that Tamazight “would never become an official language and for it to acquire national status, it would be necessary to organise a national referendum” (El Watan, 1999 cited in Aitsislemi, 2001: 86). Again, during an official visit to Canada in 2000, Bouteflika publically stated that the officialization of Tamazight is not in his agenda as long as he is president<sup>29</sup>. Although Bouteflika was always emphasizing the idea that a national referendum about the Tamazight language is the only legitimate option to institutionalize it, he chose the easiest way to make it a national language in 2002, i.e. relying on a parliamentary vote to pass the bill. A nationwide referendum about Tamazight might be disappointing for the Berbers as the important population is Arabophone.

For the Berbers, the status ‘national’ language was no other than half recognition. To put it another way, ‘joint official’ language remained the wish especially that Morocco has recently declared Tamazight a ‘co-official’ language alongside Arabic (in 2011). In fact, the Berber question has become prevalent in the political scene of Algeria. Since the launch of the consultations about a (third) constitutional revision (a new constitution) in 2011, Berber activists did not cease their calls for officialisation. Even parties of the political opposition, including Islamic parties, have enormously invested in the Berber question.

After a long wait, the onset of the year 2016 brought the good news for the Berbers. During a press conference on January 5<sup>th</sup> 2016, Ahmed Ouyahia - director of the Presidential Office- talked about the basic lines of the new constitution. At the linguistic level, article 3 recognizes Tamazight as ‘joint official’ language alongside Arabic. Although the conference was about the constitutional draft, there were no strong clues that the newly formulated constitution will be rejected. Again, the Algerian authorities chose the trouble-free way to approve the draft when they favoured the parliamentary vote over a countrywide referendum. The legislative body is dominated by members of the two ruling (allies) parties (FLN and RND)

---

<sup>29</sup> In his words, delivered in French, Bouteflika argues: “On me passera sur le corps avant que tamazight soit langue officielle” (cited in Benrabah, 2002 :76)

who would not act against the will of their masters. On February 3<sup>rd</sup>, 2016, a legislative commission was inaugurated with the aim to organize a special parliamentary session. The vote took place on February 7<sup>th</sup>, 2016. The results revealed a landslide victory in favour of proponents of the constitutional amendment.

Although politicians see it as an essential step towards reconciliation with the Berbers, the officialisation of Tamazight did not receive social approval. Polls which were conducted right after the press conference about the new constitution demonstrated that the (Arabophone) mass, including the elite, still conceive Tamazight in a derogatory way labeling it a ‘dialect’ but not a ‘language’. Such societal judgments imply that Tamazight is in urgent need for an effective prestige/image planning which should follow measures that work on fostering positive attitudes towards the new official language.

The point which should be raised is that Arabization is an instance of linguistic policies of *assimilation*. In a multicultural/multilingual context, a policy of such a kind would inevitably be excluding as it usually tends to impose the language of the majority on the whole population. Assimilation, or social harmonization, is among the acknowledged non-linguistic ends of language policies, and it prevails in language planning of new states whose leaders usually have a desire to bring linguistically-distinct groups into a political togetherness (Pool, 1976).

Algeria, like other Arabic-speaking countries, was not the first to promote an assimilation policy. Most western countries which are now calling for minority language rights did/do not consider minorities in their language policies. After the standardization of, for example, the Parisian *dialect*, France set out to spread the newly codified variety and eradicate the different regional dialects or *patois* as they are pejoratively referred to- an act which faithfully echoes Weinreich’s popularized aphorism that ‘a language is a dialect with an army and a navy’. Occitan, for example, was a widely used variety which entered a vulnerable stage as a result of the French excluding policy. With the help of the public school which favours



French, the number of Occitan users witnessed an alarming decline. In 1860, Occitan speakers formed about 39% of the whole population, as opposed to 52% of Francophones proper (LIengua National, 2002). By 1993, they were estimated by 7% of the population at large (Barbour & Carmichael, 2000:62). The situation was not better for other non-standard varieties like Alsatian or Breton.

Likewise, Spanish- the Castilian variety- ousted other indigenous languages in Spain. Under the rule of Franco, the state recognized Spanish as the only official language. “The public use of other languages was either banned, frowned upon or despised depending on the particular circumstances and timing, while the use of non Castilian names for newborns was forbidden in 1938, except for foreigners (Mariño Paz, 1998: 353). While linguistic pluralism is recognized in present Spain, the constitution of France still regards French as the only language of the Republic. France, like many other developed countries which host millions of immigrants, does not institutionalize languages of such minorities, including Arabic and Portuguese whose speakers count in millions. Examples are plus much else besides. Citing such instances of linguistic policies of assimilation is not meant to defend Arabization. Instead, the purpose is to make it clear that assimilation policies are the rule rather than the exception.

Another important point is that the promotion of (Standard) Arabic to the exclusion of Tamazight would not work without the help of Berbers. Since the early days of independence, even during the national revolution (1954-1962), the ruling class was made up of Arabs and Berbers. If such Berbers wanted to promote Tamazight alongside Arabic, they could do it hands down. Suffice it to mention that the most significant support of Arabic came from Berber presidents: Houari Boumediene who launched the policy of Arabization, and Liamine Zerouale who reinforced the position of Arabic in the public sector- both of them are Shawi Berbers. It is also undeniable that the army has always been dominated by the shawi group. In a country like Algeria where the army has an influential role in the political scene, Tamazight could be declared official language decades ago if such a group pushed towards its institutionalization. This makes it legitimate to argue that the Berber question is a kabylian question par excellence. It was/is in Kabylia, more

than any other Berberophone area, that calls for recognition have always been voiced (Berber Spring 1980, School-bag Strike 1994, etc). Also, efforts to standardise Tamazight were/are mainly conducted by the Kabylisians, as sketched below.

## **2.4.2 Corpus Planning Efforts**

For a previously non-standard language, corpus planning is a demanding task as it requires detailed considerations of many dimensions, including codification activities (see 1.2.2.2). Haugen (1983) perceives codification as a process encompassing lexication, grammatication and graphisation. In what ensues we provide a general outline about the different codification processes that Tamazight has undergone.

### **2.4.2.1 Grammatication and Lexication**

In language planning, the usual rule is that corpus planning follows status planning, i.e. it is only after a modification of the status that reconsiderations of the corpus take place (Cooper, 1989). As far Tamazight is concerned, the process went the other way round. Because the Berbers were aware that political recognition was out of the reach, Berber linguists focused on developing the corpus of their language. But due to the absence of an official institution (like an academy) that regulates the language, most initiatives were taken individually. The elaboration of a grammar (grammatication) which governs the appropriate and correct production of the language became a necessity. Moloud Mammeri (1976), probably the most influential Berber linguist, wrote his famous *Tajerrumt n Tmazight* (Tantala Taqbaylit)- Tamazight Grammar (Kabylisian Dialect). Such a book, which was initially written in Tamazight, was later enriched by a French translation and published in 1987 under the title *Précis de grammaire berbère (kabyle)*.

Besides developing a grammar, the elaboration of a dictionary (lexication) is a question of high concern. In lexication, lexicographers usually opt for semantic expansion, borrowing or coinage (Spolsky, 1998). The different regional and social varieties of Tamazight are heavy borrowers from Arabic. Therefore, it would be logical to integrate such loanwords in the standard form. However, the state's policy towards Arabic (favourism) and Tamazight (negligence) would automatically make borrowing from the politically 'cherished' language the least favourite option for a *Berberist*.

Therefore, the exclusion of 'established' loanwords and their replacement by new 'coined' items became a dominant feature in the works of many Berber activists. Moloud Mammeri is among the pioneers to introduce new lexis to Tamazight. His contributions are apparently significant in the two works *Tajerrumt n Tmazight* (1976) and *Amawal* (a Berber-French/French-Berber dictionary published in 1980). In his first work, he was pressed to introduce concepts to express grammatical notions, such as verb and preposition. This resulted in the creation of 144 lexical units (Chemakh, 2007). His bilingual dictionary *Amawal* is actually the major work in terms of coinage. Arabic loanwords were banned and replaced by new Tamazight words. Mammeri also opted for derivation to expand the lexicon of Tamazight. Tamasheq (Targui) served as the basis on which coinage and derivation were introduced. The heavy dependency on Tamasheq was not without criticism (e.g. Achab, 1991) as this variety is significantly different from Kabyle (the dominant variety in Algeria). However, *Amawal* remains a landmark in the lexication process of Tamazight. The coined items had been diffused through the *Académie Berbère* and mass media (Chemakh, 2007).

It is evident that Mammeri, as a purist linguist, led a thirst campaign to rid Tamazight from Arabic influence. Such purification process is fueled by an anti-Arabic ideology. Mammeri misses the verity that all languages are borrowers, including autonomous standard languages. In fact, an attempt to replace established loanwords by new (coined) Berber lexis is illusory (Haddadou, 1992). Mammeri's campaign can be compared to the purification process implemented in Turkey during Ataturk's rule which made today's Turkish drastically different from

Ottoman Turkish: not only Arabic lexis was largely abandoned but also a new writing system was adopted (based on Latin alphabet).

Mammeri's earlier works triggered other Berber researchers. Since then, different areas have been circled. Achab published his mathematical lexis *Amawal n tusnakt* in 1984. By 1996, Bouzefrane Saad introduced computer lexis in his *Lexique d'informatique berbère-français-anglais*; to name but a few.

#### 2.4.2.2 Graphisation

Tamazight varieties have basically survived orally. However, a writing system is required for a language which seeks to be used in schools as writing is the basis upon which literacy materials can be established<sup>30</sup>. But developing a writing system is not always an easy task. In fact, deciding on an alphabetical system of Standard Tamazight remains a bone of contention among the Berbers before the outsiders, and linguists before the language users<sup>31</sup>. The debate certainly goes beyond technicality as linguists have the option of selecting among the available writing systems or simply devising a new one. Three different alphabets are proposed: Arabic, Latin and Tifinagh. Support of each alphabet is not neutral but rather ideology-driven.

Pros of the Arabic characters justify their choice by the fact that such characters are familiar to most Algerians as Arabic is the language of the school. Furthermore, Tamazight exists largely in Algeria and Morocco, and both countries proclaim adherence to the Arab World. As such, Arabic characters establish a link with the Arabo-Islamic affiliation (this is the main reason for its rejection by Berber extremists). It is also interesting to mention that some researchers have provided strong linguistic evidence that Tamazight comes down from Arabic, not Quranic Arabic (known as Adnanite) but an older version known as Canaanite Arabic (e.g.

---

<sup>30</sup> Writing also helps protect the language in the sense that writing leaves little room to variation. Also, the literary heritage is best guarded through writing. However, one must also admit that a large body of folk literature has been orally transmitted from one generation to the other.

Saadi, 1996; Daroudi, 2012). If these findings are validated (still subject to discussion), supporting the use of Arabic alphabet becomes justifiable.

The use of Arabic graphemes is rejected primarily by a number of *Kabylarian* researchers. For the Kabylarian linguist Salem Chaker (2002:459), “imposer l’alphabet arabe ne pourrait qu’avoir de graves incidences négatives et ralentir voire bloquer le processus de diffusion de l’écrit”.<sup>32</sup> He adds that, though Arabic has been long used to transcribe Tamazight, it has never led to a codification of the language<sup>33</sup>. Chaker’s last point might be interpreted differently: (i) Berbers had probably never been interested in the transcription of their different varieties which were orally transmitted; (ii) Berbers did not have problems with the Arabic language nor with the use of Arabic alphabet to transcribe their own varieties; (iii) the Berber (or Kabylarian)-Arabic conflict is no other than a colonial legacy that was maliciously injected in a solidly unified Algerian society by the French colonists who adopted a ‘divide and rule policy’. Compared to Tifinagh and Arabic scripts, Latinisation of Tamazight is a recent practice which was (purposefully) encouraged during the colonial era. This is one reason for the rejection of such enterprise by many Algerian linguists (Berbers and Arabs) who perceive Latin alphabet as an aspect of the continuing domination of the old colonial master. Advocates of such alternative often justify this occidental orientation on the ground that Latin graphemes are universal. Hence, they are a window towards the modern world and culture.

Chaker (2002) reveals that the diffusion of Tamazight should inevitably involve Latin script because an essential documentation is available in this script. He adds that only Latin spelling could allow the codification of Tamazight, a process that could not be achieved via Arabic characters. The reality that Chaker (ibid) misses here is that codification is a human-driven enterprise: Tamazight is widely diffused in Latin alphabet only because many Berber activists (linguists and

---

<sup>32</sup> “Imposing the Arabic alphabet could only have serious negative impacts and slow down or even block the diffusion process of writing”.

<sup>33</sup> Chaker (2002) overtly confesses that Arabic characters have long been used in the graphic representation of Tamazight. This is a reason why many researchers insist on the priority of Arabic alphabet.

writers) are producing in such characters. If the same endeavour was conducted in Arabic alphabet, Tamazight would also be codified. Hence, the blame for the delayed codification cannot be put on the alphabet but rather on the agents who were/are engaged in the codification process.

In fact, Latinisation of Tamazight was first introduced by Europeans. The French orientalist Jean-Michel de Venture de Paradis, who lived in the Levant and the Maghreb and who served as interpreter, used Latin alphabet to transcribe the Kabyle and Chleuh varieties in a dictionary crafted under the title *Grammaire et dictionnaire abrégés de langue berbère*, and which was published posthumously in 1844 (Chemakh, 2007). In 1858 A. Hanoteau published *Essai de grammaire kabyle* in which the Latin alphabet was used alongside the Arabic alphabet to transcribe the Kabyle variety (Chemakh, *ibid*). Such preliminary works paved the way to other writers, Europeans and indigenous, to produce about and in Tamazight. Focus was mainly on the Kabyle variety spoken in the North of Algeria; instances include Renet Basset's *Manuel de langue kabyle* (1887), B. BenSedira's *Cours de langue kabyle* (1887) and A. Boulifa's *Une première année de langue kabyle* (1897) (Chemakh, *ibid*). But it was with Mouloud Mammeri (1976) that the Latin spelling of Tamazight was widely popularized after the publication of his Berber grammar *Tajeɣɣumt N Tmaziyt* (Tantala Taqbaylit).

The split between advocates of Arabic alphabet and proponents of Latin characters is obviously manifested in the schools where Tamazight is taught. In Kabylia (Bejaia, Bouira, Boumerdes and Tizi Ouzou), it is the Latin alphabet which prevails. In Aures (e.g. Batna and Khenchla-shawya), it is the Arabic alphabet which is favoured. This signals again that rejection of Arabic alphabet (also Arabization) comes from the Kabyle more than any other Amazigh group.

The third proposed writing system concerns Tifinagh- and ancient writing system used in the Sahara and is perpetuated via inscriptions on memorial stones. Tifinagh is strongly supported by purist linguists and writers who insist that Tamazight should be written in its own alphabet. For them, neither Arabic nor Latin alphabets would authentically reflect the local Amazigh identity and culture. In fact, opting for Tifinagh is a balanced option which may wind up the conflict between proponents of the Arabization of Tamazight and advocates of its Latinisation. Besides its symbolic value of pan-Amazigh membership, Tifinagh also equips the language with a kind of linguistic autonomy. However, such spelling system remains the least elaborated in Algeria; its use is basically reserved to road directions, names of public institutions, etc. In Morocco, Tifinagh has been officialized and is used by state sponsored institutions, such as IRCAM- the first Moroccan authority working on promoting the Amazigh culture and language. Bouhjar argues that developing a graphic norm for Tamazight necessarily involves choosing the Tifinagh alphabet to maintain a link with the different variants of the current alphabet. It is therefore essential to draw on the existing graphemes and consider creating new symbols as a last resort (in Boukous, 2004).

The debate about which writing system should be used is still unsolved. Although this is a linguistic issue which is supposed to be contained by linguists (part of corpus planning), a top-down political decision is required. This would inexorably disappoint some groups, but it would certainly serve the language. Reaching consensus on a unified writing system at the national level is essential for successful codification of the language and hence its diffusion via the school and the media. A sole writing system inside the one country is not enough if the enterprise of standardisation aims at elaborating a norm which might be diffused at a larger scale, i.e. in the major countries where Tamazight is spoken. Developing different spellings in Algeria (unsolved), Morocco (Tifinagh), Mali (Latin), Niger (Latin) etc, does serve Tamazight in no way as different spellings inevitably involve different grammars.

This disagreement on what alphabet to choose can be compared to the situation in ex-Yugoslavia Republics. Serbia, Montenegro, Bosnia and Croatia have adopted different alphabets although they practically share the same standard language<sup>34</sup>. Cyrillic is the prevalent alphabet in Serbia and Montenegro and official documents are issued only in this alphabet (Ronelle, 2006). Croatia accepts only the Latin alphabet. Bosnia tolerates both Cyrillic and Latin.

When discussing the elaboration of a standard Tamazight norm, the point that should be raised is that the various social varieties show conspicuous differences at all levels of linguistic analysis. Although they are thought to form a dialect continuum, mutual intelligibility is noticeably affected especially in discontinuous areas such Kabylian vs. Shawi. Therefore, standardisation will inescapably introduce a diglossic situation in which the language of literacy and literature is different from the home language. Chaker (1989: 131), among others, has warned against this and recommended that the basis of the standardisation process must always build on regional varieties (Kabylian, Chleuh, Rifa, etc). Linguists are urged to engage in a *convergent* normalization process: to bring the different dialects closer (Chaker, *ibid*). To reduce divergence, Haddadou (1992) furnishes a non-exhaustive list; among which we mention:

- ✓ Identifying dictionaries and glossaries and establishing common lexis (basic vocabulary, shared vocabulary by idioms of the north, etc).
- ✓ Studying possibilities of borrowing from neighbouring dialects.
- ✓ Making use of calques building on Arabic and French.

---

<sup>34</sup> Languages of these countries form what is termed the South Slavic dialect continuum. Such languages show a high degree of mutual intelligibility as they are all based on the same dialect, Shtokavian (Blum, 2002). For political reasons (i.e., collapse of the Federation of Yugoslavia), each variety was named after the entity where it is spoken (i.e. Croatian, Serbian, etc).



### 2.4.3 Tamazight in the School

Before the 1990s, Tamazight had no share in the education system neither as a discipline nor as a subject of instruction (to the exclusion of the Amazigh course assured by Mouloud Mammeri at the University of Algiers, section of ethnology, during the years 1968 to 1972). It is a fact that the Algerian regime followed an excluding policy against Tamazight, but teaching such a variety would not be logical right after independence in the sense that many requirements were not on hand at the time: absence of a standard norm, no academically qualified teachers, and no basic teaching and learning materials. However, the inclusion of Tamazight in the school had always been a chief demand in the Berber struggle. The first important step came in 1990 when the Department of the Amazigh Language and Culture was officially inaugurated in the University of Tizi Ouzou. In 1991, Bejaia University adopted the same initiative<sup>35</sup>. Since then, attention was given to the preparation of future teachers who will hold the torch and help diffuse the language (and culture) in schools.

The establishment of the *Haut Commissariat à l'Amazighité* (HCA) in 1995 was meant to promote Tamazight and to introduce it into the public school; this is overtly stated under article 4 of its founding decree n° 95-147 (Journal officiel, 1995). Consequently, its teaching started since the academic year 1995-1996 (Dourari, 2011b). After the recognition of Tamazight as national language in 2002, the *National Pedagogic and Linguistic Centre for Teaching Tamazight* (CNPLET) was established in December 2003. Such public institution works under the supervision of the Ministry of National Education. Teachers profile and the elaboration of school manuals are among its prime concerns (see [cnplet.net](http://cnplet.net)).

---

<sup>35</sup> By 2010, two other departments were established in the universities of Batna and Bouira. It is evident that teaching/learning Berber is enforced by the Kabylia more than any other Berber group (Three institutions in Kabylia - Tizi Ouzou, Bejaia and Bouira- as opposed to one institution in the Shawia areas- Batna.

Although it has been introduced into the public school since 1995, teaching/learning Tamazight has not witnessed noteworthy evolution. Instead, it has gone the other way round, i.e. a regression in the number of teachers and learners through the years. Its teaching initially covered sixteen wilayas (out of 48 wilayas/states); most of them are situated in Berberophone regions. By 2002, it has become restricted to no other than ten wilayas (Amir, 2002: 2). In their survey, Dourari *et al.* (2008) demonstrate that the number of Tamazight teachers has known a sharp falling off, as shown in table 2.1, sketched below:

Table 2.1 Statistics about Tamazight teachers (adapted from Dourari, 2011b)

<b>Year</b> <b>Wilaya</b>	<b>95/96</b>	<b>96/97</b>	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>	<b>01/02</b>	<b>05/06</b>	<b>06/07</b>
Alger	08	10	04	03	04	03	03	00	00
Batna	09	08	01	01	01	01	00	08	21
El Bayadh	01	01	00	00	00	00	00	01	01
Ghardaia	12	04	02	00	00	00	00	01	<u>01</u>
Illizi	03	04	00	00	01	00	00	00	<u>00</u>
Kenchla	06	03	02	02	03	01	01	01	05
Oran	02	02	02	02	02	01	00	00	00
Oum El Bouaghi	06	05	13	05	05	06	05	03	<u>03</u>
Sétif	03	03	01	04	08	09	04	06	05
Tipaza	11	03	01	01	01	00	00	00	<u>00</u>

A regression in the number of teachers is systematically the outgrowth of a drop in the number of learners. On the basis of the statistics exposed on table 2.1, it is blatant that such regression does not only concern Arabophone regions (like Oran) but it also covers native Berberophone wilayas, such as Ghardaia. In fact, it is only in Kabylophone areas, namely Bejaia, Bouira and Tizi Ouzou, that Tamazight is learned since the primary school (Dourari, 2011b). Also, it is only in such wilayas (besides the wilaya of Boumerdes) that Tamazight courses are assured in secondary schools (Dourari, *ibid*). Such statistics confirm one verity: native speakers of Tamazight are not driven by the same passion for this language (Laceb, 2002).

If interest in this language is moderate to weak even within its original borders, it becomes normal not to attract the attention in Arabophone areas. In fact, it is necessary to consider the attitudes towards Tamazight, including attitudes of learners and their parents. It is commonplace to hear the mass, including many native speakers<sup>36</sup>, naming Tamazight by the degrading label ‘dialect’. Also, it goes without saying that the degree of instrumentality of a language is a strong determinant of the attitudes and/or motivation towards language learning (e.g. Gardner, 1985; Dornyei, 1990). In other words, (positive) attitudes are formed when the language meets one’s needs (see section 1.3.2.2). As far as Tamazight is concerned, its recognition as a ‘national’ language in 2002 was no other than ‘symbolic’. It has never been associated with the central government’s activities which remain basically conducted in Arabic and French. As such, Tamazight misses the utilitarian/instrumental value of a language; its Knowledge is not a key to lucrative jobs and career prospect<sup>37</sup>.

Another important aspect which may cause a disinterest in learning Tamazight is its diglossic nature. Standard Tamazight is not the vehicle of everyday communication; it is a ‘learned’ form accessible through schooling. The standard norm does not represent the genuine identity which can be only authentically expressed through their regional varieties (Kabyle, Shawi, Mzabi, etc). In other words, the symbolic value is tightly related to these non-standard varieties as they are the legitimate mother tongues. This is not the case with Arabic which is also a diglossic language: the sacrosanct language for the Arabs (Muslims in general) is Standard Arabic (H variety) and not dialectal Arabic (L variety). The prestige attributed to Standard Arabic is principally due to its association with Muslims’ holy book (the Quran) and a respected body of literature inherited since the pre-Islamic era. As a new language which is still undergoing a standardisation process,

---

<sup>36</sup> In his study conducted in Bejaia University, Bektache (2013) shows that 17% of the (Berberophone) participants consider Berber as a ‘dialect’. Other labels included ‘language’, ‘language of Massinissa’, ‘language of ancestors’, etc.

<sup>37</sup> This does not translate that Berbers do not have positive attitudes towards their language. However, the attitudes of the majority may be classified in terms of self/ego-expressive function (expressing who we are, i.e. our identity) and/or the ego-defensive function (holding attitudes that defend our self esteem) (see section 1.3.2.).

Standard Tamazight lacks prestige due to the absence of (traditional and modern) literature but also as a result of the prevalence of Arabic in liturgical practices.

The other crucial point which should be raised is that Tamazight remains an optional subject of instruction in the Algerian school. The verity that Tamazight is no other than a minority language whose main use is restricted to its original borders makes it lack the instrumentality value of a language. Therefore, there is no oddity that learners (and equally their parents), especially in Arabophone regions, are not motivated to choose such elective course. In Berberophone areas, learners who study it willingly are probably driven by integrativeness attitudes rather than instrumentality attitudes. Integrativeness attitudes may confer the learner a strong desire to learn the language without expecting any reward; reward is in the learning process itself (Gardner, 1985).

For the Berber activists, such position of Tamazight in the Algerian school is detrimental. The generalization of its teaching countrywide is their wish. They also insist of the inclusion of their language as a compulsory subject just like other languages (Arabic, French and English). In July 2015, the Ministry of National Education declared that teaching Berber will cover twenty wilayas by the onset of the academic year 2015-2016 (Ennahar, 2015). After the constitutional amendment (2016) which made Tamazight an official language, one may anticipate that Tamazight is more likely to be generalized, as mandatory subject, over all public schools. In the long run, under social pressure, Tamazight may compete Standard Arabic to the extent that it may be used as medium of instruction in areas where Berber activism is strongly identified (i.e., Kabylia).

## 2.5 French: A Linguistic Reality in Algeria

During the 19<sup>th</sup> century, Africa as a whole was shared by two main colonial powers: Britain and France. Unlike the British who did not implement strict assimilation policies as they were concerned more with economic matters, France followed a malicious policy which she called ‘mission civilisatrice’ (civilizing mission) the core of which was to convert the colonized populations into French people. The philosophical underpinning of such a policy, as put by the French philosopher Condorcet (1988: 269), is that it is a divine duty to help peoples “which, to civilize themselves, wait only to receive the means from us, to find brothers among Europeans and to become their friends and disciples”.

Falling under the French colonialism since 1830 until 1962, Algeria was subject to a rigorous *assimilation*, or precisely *acculturation* policy, perhaps the most significant among all French colonies. Unlike her neighbours (Morocco and Tunisia) which were only protectorates, Algeria was always regarded as a French property, an overseas department named l’*Algerie française* (French Algeria). This is metaphorically mediated in the popularized French slogan: “la Méditerranée traverse la France comme la Seine traverse Paris” (the Mediterranean crosses France just like the Seine crosses Paris). As such, the French believed that if properly taught the French language and French values, Algerians would slowly *evolve* and become French (Zachary, 2004). Besides encouraging Christianity through religious missionaries, the French language was imposed in all walks of life at the cost of local languages, namely Arabic and Tamazight. Such apparent form of linguistic imperialism was meant to rape the linguistic (hence cultural) identity of Algeria. In this respect, Kh. Taleb Ibrahimi (1997:42-3) reports that “Le français [...] a constitué un des éléments fondamentaux utilisés par la France dans sa politique de dépersonnalisation et d’acculturation à l’égard de l’Algérie”<sup>38</sup>.

---

<sup>38</sup> “French [...] was one of the fundamental elements used by France in its depersonalization and acculturation policy towards Algeria.”

In fact, Algeria was a battlefield for a linguistic war in which the main rivals were Arabic and French (Tamazight to a lesser extent as it is more localized, existing in various oral idioms). Because Islam was/is the dominant religion in Algeria, the French colonizers were aware that religion is a real obstacle for the implementation of their assimilation policy. Hence, a war on Islam must include a war against the language of Islam, i.e. Arabic. This “triggered a whole new orientation in education that is a re-structuration of the Algerian school along French lines and the eradication of the Arabic and Islamic roots of the conquered land in order to produce a man free from culture, easy to manipulate” (Rebai Maamri , 2009: 79). The war against Arabic did not only cover public schools, but it extended to limit the role of the mosque and religious schools being the major institutions which helped diffuse Arabic well before the advent of the French. Such suppressive linguistic policy turned the vast majority of the local inhabitants illiterate having control of no other than Dialectal Arabic (or Tamazight). However, the long-term occupation (1830-1962), added to the policy of acculturation, could not lead to the *loss* of (Standard) Arabic. This can be attributed to five major reasons:

1. Arabic was a *written* and *standard* language. Other African countries which had a number of non-standard varieties with only an oral tradition could not resist the French supremacy. After independence, most of them crowned French as an/the official language of the state (e.g. Senegal)

2. Arabic is deeply rooted in the Algerian society due to its religious value (the language of the Quran).

3. Although they were subject to control during the colonial era, religious schools (e.g. *al-kuttāb*, *Zaouïas* and *Medersas*) did not cease their enlightening role. Such schools offered literacy in the city and the village as well, focusing on teaching the Quran and the basic principles of Islamic faith; this could be furnished in Standard Arabic.

4. Algerian families have maintained the use of Dialectal Arabic at home. Thus, the linguistic transmission from one generation to the other was not impaired.

5. The majority of Algerians were deprived from their right of schooling during the colonial rule. Therefore, French could not oust Dialectal Arabic which remained the day-to-day vehicle of communication between the Algerians (recall that bilingualism is one way to language death).

After independence, Algeria's nationalist leaders led a steady linguistic campaign against French through the linguistic policy of Arabization which aimed at placing (Standard) Arabic as the sole language of all sectors (see section 2.2). Since then, French has lost a lot of domains in favour of Arabic. The army, justice and (pre-university) education, etc, which were once based on French, are now entirely arabized.

However, despite the large-scale Arabization process, although more than five decades have elapsed since the departure of the colonists (1962), French is still alive and kicking and continues to fulfill important linguistic tasks in the social life of Algerians. It is present in a variety of prestigious domains, like health, finance and administration. Although it is politically considered a foreign language, French is firmly associated with a variety of services of the central government to the extent that it may be the one and only used language. It is used by high officials of the state. It is also omni-present in the media, be it spoken or written (Mostari, 2004). It constitutes a linguistic resource upon which Algerians depend a great deal. Code switching/mixing characterizes the speech of (educated) people to the extent that it is sometimes hard to decide what language is spoken (i.e. matrix language).

French loanwords are part of the day-to-day linguistic behaviour of Algerians. For example, it is natural to hear people (including the illiterate) naming different parts of the car in French; conversely, it is unlikely (even challenging) to hear the Arabic equivalent terms for such objects. Although French still persists, independent Algeria has never recognized French in its constitutions (1963, 1976, 1989, and 1996). Politically, it is always referred to as 'foreign language'. But on linguistic grounds, French has the status of a second language. One would agree with Ennaji's (2005) characterization of French (with reference to Morocco) who argues that it is neither a foreign language like English nor a national/official

language like Arabic. To show the strong presence of French in Algeria, suffice it to consider the linguistic landscape (road signs, advertisement, shop names, etc)- part of covert language planning (Shohamy, 2006). Building on Mackey's (1967) distinction between *de jure* (by law) and *de facto* (by fact) bilingualism, Algeria is a *de jure* 'bilingual' speech community (both Arabic and Berber are constitutionally recognized) and a *de facto* 'multilingual' country.

The persistence of French in Algeria is attributed to a number of reasons; the chief of which are historical and educational, as sketched below:

✓ Historical: French is the offshoot of a long period of colonialism (1830-1962). A period of more than one century is forcibly strong enough to result in long-lasting effects on the subjugated society; the maintenance of the colonial language is among such effects.

✓ Education: If illiteracy policy was deliberately followed towards the local inhabitants during the colonial rule, one would confidently argue that French would not survive in Algeria without the help of the school of independent Algeria. This assertion builds on the fact that Algeria of 1962 inherited a largely illiterate society. CENEAP (le Centre nationale d'études et d'analyses pour la population et le développement) estimated that the ratio of illiteracy in 1962 was around 85% (CENEAP, 2013 in El Moudjahid). From a linguistic viewpoint, such illiterate Algerians did not know other than Dialectal Arabic and/or a Tamazight variety. They had no command of French; they were *passive* bilinguals at best. If we accept that the literate population (15%) had good command of French (which is not systematically true as some of them only knew Standard Arabic which they learned in Quranic schools or other Arab states), and that the total number of the population was around 10 millions (no exact number)<sup>39</sup>, we infer that about one million and a half were competent users of French. The actual number is certainly higher. On March 16<sup>th</sup> 2015 and in his opening discourse of the Week of the Francophonie in Algeria, the French ambassador, Bernard Emié, proudly announced that the number of Algerians who fully master French and use it in everyday life is more than 11

---

<sup>39</sup> The first official census of 1966 estimated that the total population counts 11.850.00 (CENEAP, 2013)



million<sup>40</sup> (algerie-focus, 2015). If the number of Francophones increased in independent Algeria, this can be basically attributed to the school which chiefly depended on French (as medium of instruction) and European teachers after independence until the late 1980s when the school was entirely arabized. The free and massive enrollment in the public schools greatly contributed to the spread of French in Algeria. As such, it is important to consider the status of French in the Algerian education system.

As it has been mentioned earlier, French gradually lost its position in the Algerian school in favour of Standard Arabic. The exception relates to higher education, namely scientific and technological fields in which French remains the (exclusive) language of instruction. However, the pre-university stage was completely arabized by 1988. French, which was once the medium of instruction, turned to be a ‘foreign language’, a (mandatory) subject introduced to learners since the fourth grade (now, since the third grade). It was until the advent of president Bouteflika (1999- ) that French received a significant political push and acquired an unprecedented tolerance to the extent that it has become commonplace that heads of the executive body address the local mass in French instead of the official language of the state (i.e. Standard Arabic). The scandal is when officials with the rank of a minister cannot deliver a short speech in literary Arabic; this is the case with a number of (ex) ministers, including ministers of domestic affairs, the minister of culture, and the current minister of national education. Algerian politicians, academicians and linguists who defend French at the expense of Arabic know that a minister in the French government would never dare to use a language other than French to address the local audience; this would receive neither political nor social tolerance. It goes without saying that disrespect to the national principles, of which language is a fundamental element, is a disrespect to the dignity of the country.

---

<sup>40</sup> Certainly, the number is overestimated as it does not take account of the different types of bilinguals: active vs. passive, balanced vs. unbalanced, compound vs. coordinate. It would be a fallacy to characterize, for example, *all* university students as competent users of French; the results of the case study of this thesis is a strong evidence that many students reach the university with a weak command of French.

As far as education is concerned, Bouteflika did not cease to state publically, during his electoral campaign and after being elected president, that Algeria witnesses a decline in education standards. To diagnose the issue, Bouteflika set the *National Commission for the Reform of the Education System* on May 13<sup>th</sup>, 2000. A year later, the commission handed in its final report. As far as the linguistic dimension is concerned, the commission recommended the introduction of French as a compulsory subject of instruction starting from the second grade. It also went against the Law of December 1996- compulsion to arabize all education cycles, including higher education- and recommended that sciences and technology should be taught in French at the university level. A recommendation of such a kind is inescapably a subject of hot debate, especially on the part of the partisans of Arabization (Benrabah, 2002; 2007). In fact, it is no wonder that the advocated linguistic reforms have generated acid criticism as the commission was dominated by the Francophone class, including its president Benzaghrou (after whom it is named), the current minister of National Education (i.e. N. Benghabrit), the ex minister of culture (i.e. Khalida Toumi), to name but a few. For a pro-Arabization, such people reflect aspects of Francophilia; they do not only show support to French but they, in parallel, hold the flag of war against Arabic (recall that Benzaghrou and Benghabrit are among those who call for dialect use in schools, see section 2.3.3.2).

Despite the opposition, the recommendations have been gradually implemented since the school year 2002-2003. Now, learners are introduced to French since the third grade (French is still a (first) foreign language). Although it is not a medium of instruction, it is used in mathematics, physics, chemistry and some other technical subjects specifically in the writing of laws, formulas and equations. The Arabic symbols ‘أ، ب، ج’ are no longer used as they had been replaced by the Latin characters ‘A, B, C’. In mathematics, the variables ‘س’ and ‘ع’ have been replaced by ‘X’ and ‘Y’. Under the supervision of Benghabrit, the Ministry of National Education intends to equate the hourly volume of Arabic and French as subjects of instruction in the middle school starting from the year 2016-2017

(Assawt, 2015). In fact, one may expect a gradual return to bilingual education if Benghabrit retains her position on the head of the Ministry of National Education.

The undeniable verity is that support for any language (Arabic or French) depends on the one who is in power. If the decision-makers are for Arabic, this leaves little to no room for French. If they are for French, Arabization is made on hold. This can be perfectly exemplified with regard to the political law of January 1991 (N 91-5) which defined July 5<sup>th</sup> 2000 as the date for generalizing Arabic in education, including the university. It was issued during the presidency of Chadli, a president whose support for Arabization is unquestionable. After his resignation, the francophone clan (including heads of the army) who took control over the country put such a law on the back burner. The election of a pro-Arabization president (Zeroual) reinstated the law on December 21<sup>st</sup> 1996. Again, the advent of president Bouteflika (1999- ), prorogued Arabization. This reflects that support of any language primarily depends on the ideology of the powerful. If this is the case, one would agree with Yearous (2012) who observes that “[t]he language battle between Arabic and French should not be: “who will win?” but rather: “how will the two languages coexist?” (p. 11).

## 2.6 Conclusion

Algeria is a meeting ground for three main languages which compete one another. While Arabic is a *statutory* and *symbolic* official language, Tamazight is no other than a *symbolic* official language. French, which is politically regarded a foreign language, is instead a *working* language which echoes a covert official status. The heated linguistic competition is obviously between Arabic and French. The school is the major domain where the competition is noticed. While pre-university education is based on Arabic, higher education is still divided with some fields offered in Arabic and others provided in French. The persistence of French in scientific and technological fields at the university level drives the present research. To put it another way, the aim of the current research is to investigate the possibility to arabize the university. The following chapter provides the methodological design of the study.

## **CHAPTER THREE**

## **Setting the Methodological Frame**

### 3.1 Introduction

### 3.3 The Research Design

### 3.4 The Research Site

### 3.5 The subjects

#### 3.5.1 The Students

#### 3.5.2 The Teachers

#### 3.5.3 Classroom Observation Sampling

#### 3.5.4 Questionnaire Sampling

#### 3.5.5 Interview Sampling

### 3.6 Data Collection Tools

#### 3.6.1 Classroom Observation

#### 3.6.2 The Questionnaire

##### 3.6.2.1 Students' Questionnaire

##### 3.6.2.2 Teachers Questionnaire

#### 3.6.3 The Interviews

##### 3.6.3.1 Interviewing Students

##### 3.6.3.2 Interviewing Teachers

### 3.7 The Pilot Study

### 3.8 Reliability and Validity Considerations

### 3.9 Monitoring Ethics

#### 3.9.1 Informed Consent

#### 3.9.2 Harm

#### 3.9.3 Privacy

### 3.10 Questionnaires Return Rate

### 3.11 Limitations and Delimitations of the Study

### 3.12 Conclusion

### 3.1 Introduction

This chapter outlines the overall methodological approach of the study. It reviews the fieldwork procedures and methods. It therefore portrays a thorough, explicit and systematic account of the study design and the approach followed in data preparation and analysis, the type of data required (qualitative and/or quantitative), the site in which the research was conducted, the target population from whom data was obtained, the research instruments that were utilized, and also how the data will be analysed. Of course, the motivation beyond each choice is offered. A general account of the methodology is crucial not only to guide the reader but also to provide other researchers with the possibility to replicate the study. As such, this account provides the research standard of replicability- to conduct the study exactly as it was originally undergone.

### 3.3 The Research Design

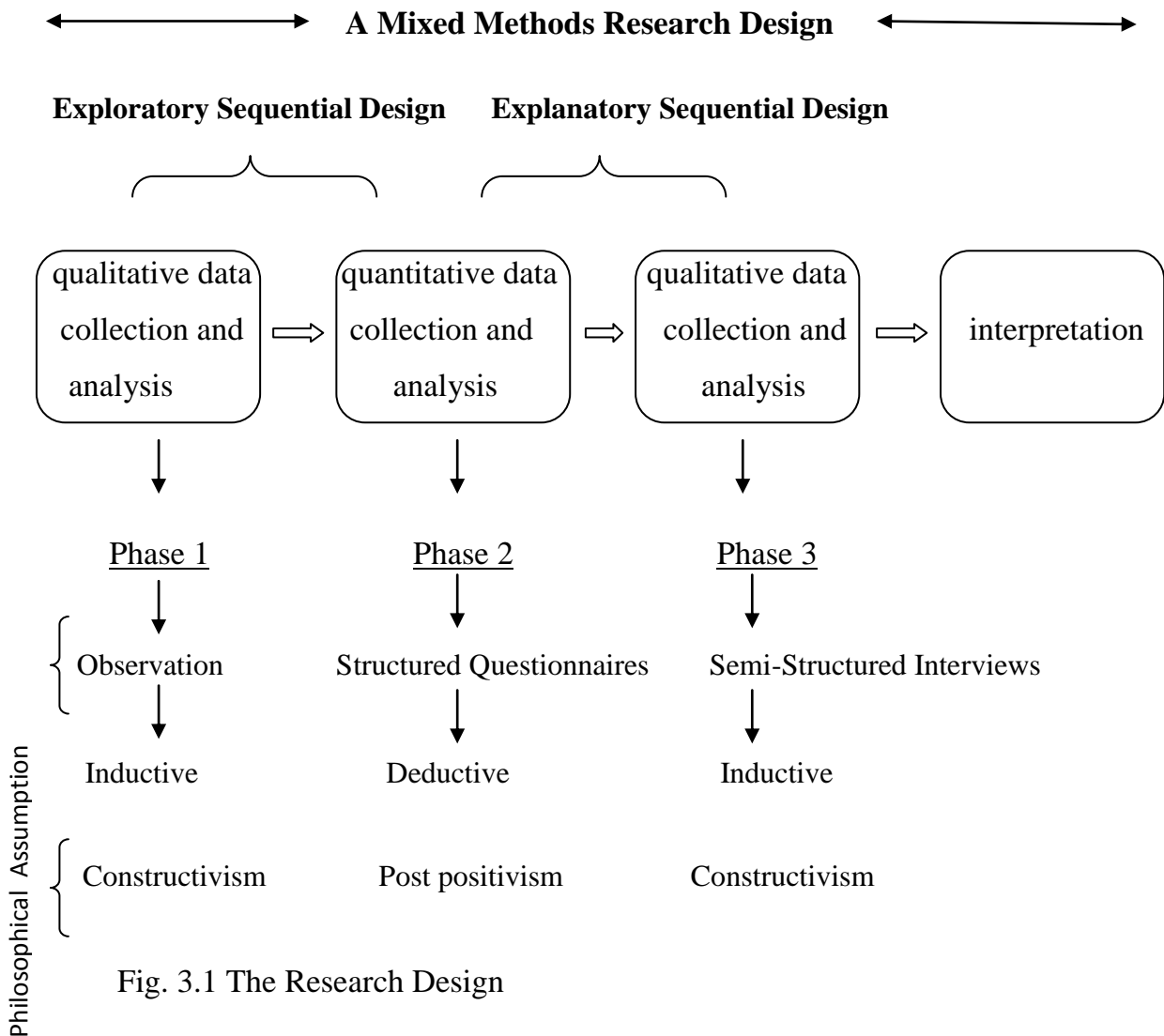
The **research design** might be thought of as a roadmap for researchers, or “a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings” (Burns & Grove, 2003:195). The research at hand is based on the case study method. Defining ‘case study’ has always been a bone of contention. However, a universal denominator that case study researchers might agree on, argues Johansson (2003), would be that such a method should have a ‘case’- the object of study- which is a contemporary and complex functioning unit investigated in its natural context with a multitude of methods “to derive a(n) (up-) close or otherwise in-depth understanding of a single or small number of “cases”” (Bromley, 1986:1). Unlike in the experimental and quasi-experimental methods, the case study researcher does not maneuver the variables but only observes the features of a case set within its real-world situations.

The kind of research questions is *the* key to deciding what research method to opt for. Yin (1994) ascertains that the case study is determined by the ‘how’ and ‘why’ research questions, restricted to contemporary situations in real-life contexts. The case study is thought to be useful to further understanding of a particular problem, concept or issue (Stake, 1995). Central to the case study is that sufficient data is necessary in order to provide an in-depth focus and allow the researcher to scrutinize specific aspects and gain insightful appreciation of the case in point.

The present study was conducted on the basis of a mixed methods design, i.e. matching the qualitative and the quantitative approaches within the same investigation. This is meant to, as Leech and Onwuegbuzie (2009) explain, capitalize on strengths and reduce weaknesses that stem from using a sole research method. One sort of methods was found inadequate to address the research problem, and therefore it was pragmatic to mix both methods to get multiple standpoints, and to integrate a qualitative constituent into an otherwise quantitative study, i.e. to build from one phase of a study to another as it is exposed on figure 3.1, sketched below. Taking into consideration Creswell’s (2008) recommendations for using mixed methods, qualitative and quantitative methods were conducted as follows:

- The research data were collected using a variety of methods (qualitative and quantitative), namely classroom observation, interviews and questionnaires. It is of significance to mention that both qualitative and quantitative data were given equal priority (weight).
- The data were *sequentially* collected. In fact, two sequential approaches were exploited: the *Exploratory Sequential Design* and the *Explanatory Sequential Design*. This translates that three phases were required making, of course, the research challenging to some extent in that constructing different phases is time-consuming; a process which also requires the availability and recruitment of informants for three rounds of data collection. The first two phases were conducted on the premise of an exploratory sequential design, i.e. the initial phase was largely intended to collect qualitative data upon which (parts of) the second phase-quantitative- was built. After having designed the second phase, collected and

analysed quantitative data, the third phase was constructed. The last two phases were matched employing the quantitative results to shape the qualitative research questions to help achieve careful understanding. The design can best be explained in the following figure:



The three sequential phases were implanted within the design of the case study. On the one hand, making use of the Exploratory Sequential Design at the beginning of the investigation was essential in that some variables were still blurred, and therefore novel questions could be devised. It also permitted to assess the degree to which qualitative findings (through observation) might be generalized to a larger population investigated through the quantitative method (questionnaire). In a word, quantification helps make qualitative results more satisfactory. On the other, the blessings of the explanatory sequential design are:

- ✓ the qualitative data helps reach an in-depth understanding by giving follow-up explanation of the quantitative findings that need further examination;
- ✓ pick the best informants for qualitative study;
- ✓ and decide on the data collection instrument design.

In sum, mixed methods research meets precise statistical measurement and generalizability of quantitative research besides the in-depth analysis of qualitative research. As for the analysis, the data sets of each phase were analyzed separately. The results of the three database phases were combined in the interpretation phase.

### **3.4 The Research Site**

Delimiting a research site, or sites, is a prerequisite for data collection. The current study was conducted in the University of Tlemcen, Algeria. Eight (8) faculties make up the construct of such institution of higher education as shown in table 3.1, sketched below.



Table 3.1 Faculties of Tlemcen University

<b>Faculty</b>	<b>Medium of Instruction</b>
1. Law and Political Sciences	Arabic
2. Humanities and Social Sciences	
3. Economics, Business Studies and Management Sciences	
4. *Letters and Languages	Arabic, French, English, Spanish
5. Sciences	French
6. Technology	
7. Nature and Life Sciences, Earth and the Universe Sciences	
8. Medicine	

To meet the objectives of the current study, the research site must be an institution in which French is the medium of instruction. The last four faculties (5 to 8) are found representative, whereas the first four sites do not serve the purpose as instruction is exclusively done in Arabic (of course, the exception relates to the departments of foreign languages included under the Faculty of Letters and Languages, namely English, French and Spanish). The choice was put on the Faculty of Nature and Life Sciences, Earth and the Universe Sciences (for short, Faculty of Biology and Geology). Other faculties could be chosen; running research in more than one faculty was also possible. However, one faculty was thought to be sufficiently representative.

The selected faculty is made up of four departments: the largest (in terms of students' numbers) is the Department of Nature and Life Sciences, referred to as Biology. The other departments are: Earth and the Universe Sciences (Geology), Agronomy, and Forest Sciences. The last department is unique in that it is the only one at the national scale that offers university education in such specialty. All

departments ensure education within the LMD system. The degrees offered range from Licence (equivalent of BA) to Doctorate with the Master's degree in between. Successfully finishing three years of education is required to obtain a Licence; two more years for a Master, three additional years for a Doctorate.

Students in the Department of Biology enroll for a two-year common core, and then can choose a specialization since the third year in a number of sub-disciplines, like Biochemistry, Microbiology, Genetics, etc. The same rule applies to students in the departments of Geology and Forest Sciences, each having a variety of sub-disciplines. The only exception relates to the Department of Agronomy which only offers training beginning from second year. A number of biology students, who successfully finish the first year, can, on a voluntary basis, specialize in Agronomy starting from second year. This is the reason why agronomy students were not included in the sample population of the current study which basically considered first year students.

### **3.5 The subjects**

The subjects are one of the main concerns in conducting a field work. The researcher has to clearly define the target population relevant to his research. It is necessary to review two fundamental, interrelated concepts encountered when dealing with subjects: population and sample. In general terms, the population refers to all the subjects (persons, objects, events) that belong to some category one wants to study. More often than not, the population is too large making it challenging to survey all of its subjects. Subsequently, a sample that reflects the characteristics of the population as whole is very often chosen. A sample is therefore a small division of the population. Hence, sampling is, as Gay (1987:101) observes, the process of “selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected”. The target population in the current study relates to teachers and first year students in the Faculty of Biology and Geology. Providing a general picture about the population is found crucial.

### 3.5.1 The Students

First year students are of different ages and the minimum age is seventeen (17). The Baccalaureate certificate (or the equivalent for those who come from other countries, whether Algerians or foreigners) is a prerequisite to join the faculty (university in general). These students must be holders of a Baccalaureate degree in one of the following study areas of secondary education (high school): Experimental Sciences, Mathematics or Techno-Mathematics. The great majority of the students are Algerians, from the Wilaya (i.e. state) of Tlemcen; very few are outsiders. Though the faculty also counts a number of foreign students, especially from neighbouring African countries such as Niger, Benin, etc, these students were not considered in the current study as they do not serve the purpose of this research (Arabic is not their first language). Table 3.2, shown below, indicates the exact number of all first year students distributed on the different departments of the faculty.

Table 3.2 Registered First Year Students for the University Year 2014-2015 (Source: Administration of the Faculty)

<b>Department</b>	<b>Males</b>	<b>Females</b>	<b>Repetitive</b>	<b>Foreigners</b>	<b>Total</b>
<b>Biology</b>	160	498	55	11	<b>658</b>
<b>Geology</b>	77	50	28	12	<b>127</b>
<b>Forest Sciences</b>	40	30	2	/	<b>70</b>

The (Algerian) students virtually share the same pre-university *formal* educational background (though quality may differ depending on a number of factors, such as quality of teachers, teacher experience, etc). Therefore, they theoretically meet the standard of population *homogeneity*. Of importance to the current study is that all such students have received an *Arabic*-based pre-university education. Also, all of them have normally studied French as a compulsory subject since the primary school.

### 3.5.2 The Teachers

Unlike the students who are more or less homogeneous, the community of teachers exposes significant diversity in terms of age, academic degree, grade, work experience, education background, professional training, etc. The variable of age is central to our study for it is a harbinger of the teacher's education background. Based on the pre-university education, teachers fall into two major categories:

➤ Bilingually-educated: the label 'bilingual' is used in this context to refer to teachers who received a *pre-university* education in two languages: Arabic and French. The former was reserved for a few minor, precisely literary, subjects; the latter, for scientific subjects. Recall that the last bilingual promotion was in 1989, and therefore the minimum age of a teacher of this category is not below 44 as the age of a Baccalaureate candidate is generally 18. This sort of teachers will be referred to as the *francisant*.

➤ Arabic-educated<sup>41</sup>: these are the younger generation who underwent an Arabic-based *pre-university* education in which French was no other than a subject of instruction (a foreign language). Though all informants are important, responses of these arabized teachers are central to our study since they are younger, and therefore represent the future of the faculty.

---

<sup>41</sup> The labels 'arabisant' and 'francisant' will be used throughout this thesis to mean the Arabic-educated and the bilingually-educated teachers, respectively. When such labels are used as adjectives, not nouns, the plural inflectional morpheme 's' will be added to obey the French grammar rules.

The word ‘pre-university’ is in italics as it is the chief variable which differentiates between the two categories of teachers. One must clarify that all such teachers are bilinguals in a general sense (bilingual competence may differ across generations and even across individuals of the same generation depending on a number of factors). Those labeled ‘Arabic-educated’ teachers, or simply the *arabisants* also have a good command of French: they studied French as a compulsory subject during their pre-university stage, they received higher education exclusively in French, and they are now teaching content subjects in French.

As far as sampling is concerned, the fact that the target populations are too bulky, even diverse for teachers, it was not possible to rely on ‘total population’ sampling technique. Sampling concerned *Algerian* teachers and students and differed in size in accordance to the data collection instrument employed. Because most researchers acknowledge the probabilistic sampling methods over the non-probabilistic (purposive) methods for various reasons, probability techniques were adopted. Central to probability sampling is *randomization*, i.e. randomly selecting informants giving the different subjects in the target population equal odds of inclusion. This is ideal to building *representative* samples from which inferences can be *generalized* on the whole population.

The size of each sample took account of three main aspects: accuracy, cost, and homogeneity of the population. The intricacy to rationally match ‘accuracy’ with ‘cost’ faces virtually all researchers in that there exists a paradoxical relationship between the two with the former requiring a significantly sizeable sample whereas the latter calls for low numbers of informants. To rid this issue, questionnaires, which are less costly in time and effort, were administered on a larger sample with the aim to meet the standard of ‘accuracy’. On the contrary, observation and interviews were conducted with relatively small samples, as discussed below.

### 3.5.3 Classroom Observation Sampling

Although classroom observation systematically entailed observing the teachers, subject to classroom observation are first year students, section one, Department of Biology. Though observation is associated with qualitative research and purposive sampling is more prevalent in such type of investigations, the sampling technique in this study is a probability sample, precisely ‘simple random sampling’. This is because there exists no particular reason beyond the choice of the section or the department. Choosing another section within the same department or in another department within the same faculty was feasible. Section one is thought of to be as sufficiently representative as possible. Considering sections *homogeneity* in general terms (across departments), they are apparently identical in a number of traits: including males and females (though numbers are sometimes *slightly* higher in favour of one gender or another), having access practically to the same learning resources (e.g. library books, internet, etc), but more importantly, as mentioned earlier, having virtually the same pre-university formal education background, including the learning of French. Dealing with sections *homogeneity* in particular terms (within the Department of Biology), learners in the three sections have the same teachers, same section size, same content subjects, etc. Dividing students into three sections is for pure academic ends (e.g. the lecture hall space). The point here is that students are dispatched on three sections only on the basis of the alphabetical order of their names; their linguistic abilities are not considered. This makes generalizability of the findings practical.

The total number of students in this section is 180. However, the number of those being observed could not be fixed as it varied from one session to the other. The rationale for this is that the observation process was carried out during seminars where presence is not mandatory. The attendees were estimated between 50 and 93. All informants were considered, but the focal individuals were those who served the goals of the pre-defined observation template, especially those who interacted, or failed to interact, verbally (for objectives of classroom observation, see section 3.6.1).

### 3.5.4 Questionnaire Sampling

Stratified sampling, a probability sampling technique, was found more accurate with students and teachers alike since smaller subsets were available: different specialties (for students), and different education backgrounds (for teachers). One reason beyond partitioning the subjects into smaller strata is to make separate inferences for the subsets and to compare them (Fienberg, 2003); this is interesting in this study as the hypothesis associated with the third research question requires comparison between the two different categories of teachers (arabisants vs. francisants). Stratification is also supposed to (i) reduce standard error and (ii) accomplish better statistical significance (Frienberg, *ibid*).

As far as students are concerned, the questionnaire covered 220 students distributed on three subsets as shown in table 3.3:

Table 3.3 Students Questionnaire Sample

Department	Entire population			Sample			
	Males	Females	Total	Males	Females	Total	Sum
Biology	160	498	658	41	104	<b>145</b>	<b>220</b>
Geology	77	50	127	31	19	<b>50</b>	
Forest Sciences	40	30	70	14	11	<b>25</b>	

Table 3.3 obviously exposes that the technique used is *disproportionate stratified sampling*: dissimilar numbers across, and within (males vs. females), specialties were considered. The main reason for this is that the questionnaires were distributed during seminars, and the number (also the gender) of students who attended seminars in one specialty was not the same in another. In terms of *accuracy*, 220 informants provide more accurate results. This decreases error resulting from superfluous sources within each informant (degree of motivation, temper, etc) and increases true measure. The more substantial the population is, the higher true measure is. In fact, 220 (out of 855) correspond to 1/4 (or 25.73%) of the target population. This is of course a large sample which is supposed to reflect

the entire population as precisely as needed. Sorting the samples according to different genders and departments denotes that the smallest sample stands for no less than 1/5 of the population at large. As far as the Department of Biology is concerned, the sample population represents more than 22% of the whole population (males 25.62% and females 20.88%). As for Geology, the sample symbolizes 39.37% (males 40.25% and females 38%). The percentage of the sample of Forest Sciences students corresponds to 35.71% (males 35% and females 36.66%).

In data analysis, the *Sample Size Calculator* will be used to provide the level of precision in the existing sample. Fundamental to this calculator are the *confidence interval* and the *confidence level*. The first is also known as the margin of error: the wider this interval is, the more convinced you can be that the whole population answers would be within that range. The second informs how sure you can be, i.e. it reflects how often the true percentage of the population who would choose an answer lies within the confidence interval. As far as the present study is concerned, the margin of error is 5 whereas the confidence level is 95%. This translates that when we consider the confidence level and the margin of error jointly, we state that we are 95% sure that the true percentage of the population is between 5- and 5+. As an illustration, if we ask a question and 65% of the sample picks an answer, we can be 95% sure that if we had addressed the question to the whole population between 60% (65-5) and 70% (65+5) would have selected that answer.

Last but not least, in terms of *cost*, considering a large population translates straightforwardly into escalating charges, especially in terms of time and effort. To help tabulate the results, the ESSP software (version 17.0) was used.



As for teachers, the questionnaire considered a total number of 70 teachers (out of 183), arabisants and francisants, males and females, with different fields of expertise (microbiology, biochemistry, bacteriology, etc), different professional experience (minimum three years of work), different grades (assistant teachers, professors, etc), and from all the departments of the faculty. Because the questionnaire can be used to cover a large sample, it was possible to distribute the questionnaire to all the teachers, but this would miss the value of sampling.

### **3.5.5 Interview Sampling**

Because the interview was the last used data collection instrument, and on the basis of the questionnaire results which exposed no significant differences neither in terms of gender nor specialty, it was not essential to rely on *quota sampling*. Instead, *simple random sampling* was used; the sample comprised eight (8) students (3 males and 5 females) *randomly* selected from the Department of Biology.

As far as teachers are concerned, we also randomly selected six (6) teachers to be interviewed: 3 young arabisants and 3 experienced francisants. Two informants have already responded to the questionnaire; this is a blessing as the interview offered them a second opportunity to defend their responses and therefore to provide an in-depth understanding beyond their earlier answers. It should be noted that the age of the interviewed arabisants did not exceed 40. This serves well the concern of the present study: attitudes of such a group of teachers are extremely important as they represent the future of the faculty.

### 3.6 Data Collection Tools

Any research builds on data collection, and the success, malfunction or failure of the research is firmly interwoven with the accuracy of the data. Consequently, erroneousness in collecting data, including the use of the wrong tool, will most probably influence the findings, making the research of questionable validity.

Data collection in the social sciences research depends largely on manifold methods, known as ‘triangulation’ (Webb *et al.*, 1966). In the literature, Campbell and Fiske (1959) are credited with being the first to develop the idea of triangulation using the term “multiple operationism”, in which multi-methods are employed in the validation course to guarantee that the explained variance is the outgrowth of the underlying phenomenon and not of the instrument. In this respect, triangulation can be broadly identified as the application and combination of several research methodologies in the study of the same phenomenon (Bogdan & Biklen, 2006). The fact that single methods have boons as well as banes makes it advisable that “researchers should not rely on any single source of data, interview, observation, or instrument” but rather on triangulation (Mills, 2003: 52). The first and foremost godsend of triangulation is that the researcher can be more confident of their results, especially when two or more measures are found harmonious and yield compatible results; this “enhances our belief that the results are valid and not a methodological artifact” (Bouchard, 1976:268). In this way, triangulation stands out as a substitute to conventional standards of reliability and validity.

In the current study, three research tools were exploited: classroom observation, interviews and questionnaires. The choice of the measure is in a way or another determined by the research question as indicated in table 3.4, highlighted below:

Table 3.4 Data Collection Tools with Regard to the Related Research Question

N	Statement	Tool	Source
Q 1	Does the abrupt switch in the medium of instruction, from Arabic to French, seriously impede efficient learning of scientific content subjects?	Classroom observation + interviews + Questionnaires	Students + teachers
Q 2	What attitudes do students have towards such sudden switch in the medium of instruction?	Interview + Questionnaire	students
Q 3	What attitudes do students and teachers have towards the Arabization of sciences?	Interview + questionnaire	teachers

Table 3.4 manifestly shows that every single research question was cross-checked with at least two instruments (i.e. methods triangulation). Cross-verification allows for greater accuracy and eases validation of the findings, especially when the same conclusions are reached. It is evident that all the questions were probed through qualitative and quantitative methods as well. As far as the first question (Q1) is concerned not only were different instruments used but also data was collected from different sources (teachers and students), i.e. triangulation of methods and sources.

Obviously, the instruments exploited to collect data are of two kinds: classroom observation (including the performance template) and interviews are researcher-completed, whereas questionnaires are informant-completed. To put it another way, the position of the researcher is actually absent in quantitative research since the informant autonomously performs. In qualitative research, the researcher is also an instrument (Denzin & Lincoln, 2003); he is in fact the “primary instrument in data collection and analysis” (Merriam, 1988:19). Unlike inanimate tools like the questionnaires, the presence of a human being is beneficial in a number of ways, such as the ability to adjust methods to fit the context, respond to the necessities of the setting, furnish follow-up questions, and carefully assess both verbal and non-verbal responses.

It is found necessary to make clear that the use of observation was only reserved to provide a general description about the learning atmosphere with particular focus on students-teacher verbal interactions (participation) and whether the class is inviting or de-motivating. Reliance on questionnaires and interviews to answer the research questions was predominant since both methods consider the informant's insider viewpoint. Therefore, it is obvious that the approach to language attitudes measurement is the 'direct approach'. In fact, adopting such measurement technique was largely dictated by the context where the study was driven. The application of indirect methods would be extremely difficult, if not impossible. It goes without saying that each approach has its strengths and weaknesses (see section 1.3.2.5).

On the one hand, the *societal treatment analysis* has proved its significance in many cases, but it is still perceived by many social psychologist of language as an informal approach which may only "be usefully employed as a preliminary study for more rigorous sociolinguistic analyses which would involve the utilisation of direct or indirect methods of data collection" (Garrett *et al*, 2003:16). On the other, the *indirect approach* is highly appreciated, especially its *matched guise technique*. However, the shortcomings generated by the use of such technique have encouraged a return to more direct measurement techniques (Gallois *et al.*, 2007: 600). In spite of a variety of flaws which may result from the use of the direct approach, namely the possible effects generated by social desirability (e.g. Dovidio & Fazio, 1992), it remains an efficient technique in the measurement of language attitudes. Various studies held by leading researchers relied exclusively on the direct method and yet revealed interesting findings. In their study, Trudgill and Tzavaras (1977) addressed a questionnaire which asked informants explicitly about their attitudes towards Arvanitika (an Albanian dialect spoken in Greece). The questionnaire was also employed to study language planning issues such as bilingual education (e.g. Bourhis, 1984), and to envisage L2 learning (e.g. Gardner 1982).

In what ensues, a detailed explanation of each data collection instrument is provided. The rationale beyond each choice is also given.

### 3.6.1 Classroom Observation

Observation is the data collection tool characterizing empirical research. It is associated more with qualitative research though it might be certainly used in quantitative research. In the social sciences, observation involves the direct surveillance of people and their ongoing behaviour in natural settings- unlike the artificial environment (e.g. controlled laboratory setting). As such, an observation research, as opposed to the experimental one, is of a correlational type. Observation cannot be used to cope with cognitive and/or affective aspects, but it helps a great deal to measure visible behaviour directly.

Observation is generally of two types: non-participant observation and participant observation. In the former type, also known in the literature as covert/naturalistic observation, the researcher opts for a spectator-like activity in which he does not identify himself; he has the option of either mixing in with the informants unnoticed or observing from a distance. Immediately it should be noted that watching informants from a distance must be done unobtrusively not to allow those being watched notice the presence of an intruder. Because there is no attempt to maneuver the variables but only to measure authentic behaviour, non-participant observation neither necessitates the subject's cooperation nor does it influence their behaviour (Liu & Maitlis, 2010). The major criticism to such a type is that it raises ethical issues about the informants' consent that should be met before the conduct of observation.

In participant/overt observation, the researcher, contrary to being only an eavesdropper, inserts himself as a member of a group and identifies himself as a researcher and probably explains the purpose of the observation. Generally, the researcher participates actively for a remarkable period of time to the extent that he may be required to live in the area under investigation. The main windfall that participant observation has over naturalistic observation is a question of ethics in that there is no deception (informed consent) of the subjects (Smith, 1997). However, its basic pitfall is that authenticity might be missed, i.e. the subjects being

observed may alter their behaviour and show their ideal rather than genuine self (e.g. Homan & Bulmer, 1982). Hence, external validity remains relative.

Not all authors accept the participant- non-participant division as they see it of a murky nature in that all observers have a degree of participation. Hammersley and Atkinson (1989) distinguish a continuum the edges of which are complete participants and complete observers- the former turns to be completely absorbed in the group under study; the latter, detached from it.

Observers may employ a variety of methods to gather data. Participant, but especially non-participant observers, may benefit a great deal from the use of recording devices, and they may choose to tape-record and/or video-record a setting. Such approach gives a thorough footage of the communication. Of course, video recording provides further information about non-verbal details. However, recording depends on permission if the recorder does not want to violate ethical considerations of research. Observers may also rely on field notes. Such notes help the researcher remember and record the behaviours, activities, and other features of the context. The more complete and precise the notes are, the easier they are exploited.

In the present study, it was opted for non-participant observation as the subjects' behaviour will not be contaminated by the researcher's presence. Behaviours remain natural, thereby giving the measurements high external validity. As explained earlier, both types of observation are poles of a continuum and therefore the researcher did not remain completely aloof but inserted himself within the subjects undetected. This was possible because the context and the age of the researcher were helpful. Nonetheless, his interventions were very limited. The only interventions were actually restricted to the chitchat with the students around. Being present in the research site was also crucial in that it helped to pick up informants

for the interviews<sup>42</sup>, especially those who could not answer direct questions, those who did not speak at all, and also those who were seemingly de-motivated.

The observation process was conducted as follows:

➤ The observer did not violate the classroom ethics, being always on time and staying until the class period ended. Additionally, the researcher used to read about the topics before attending the class. This is only to construct an idea about the course and to understand what the lecturer was explaining.

➤ How long: beginning of October 2014 to the end of February 2015 (first semester+ 1/3 of the second semester (sufficient data and an adequate picture obtained)).

➤ Content subjects: observation concerned lectures of Cell Biology. The choice was not random but rather purposeful. Unlike lectures of chemistry and mathematics which rely on numerical language, cell biology is delivered through a scientific register which requires significant competence to understand the core of the topic discussed.

➤ How often: three times per month to the exclusion of the holiday and the exam period (see Appendix D).

➤ Where: only two observation sessions were conducted in the laboratory (practice sessions: mandatory sessions); all other sessions were associated with seminars (optional sessions) presented in the lecture hall. There are two main reasons for such a choice: (i) the lecture hall is the context where large numbers of students can be observed. (ii) Also, it was easy to mix in with informants without being detected- lecturers have never queried the researcher presence who used to trail along at the back avoiding any possible contact with the lecturer.

---

<sup>42</sup> Some students were sometimes interviewed right after classes. These students were not indicated in the interview sample as they were informally approached. The aim of such interviews was only to check the degree of understanding, why they did not ask questions or why they failed to answer the teacher's questions.

➤ When: Observation took place in the morning. Having cell biology taught in the morning is highly important because studying early is likely to exclude issues like tiredness and boredom- issues that intimidate internal validity of any research (Mackey & Gass, 2005).

➤ Positioning: the researcher inserted himself within learners and was thought of as a student though he has never pretended to be so. Therefore, the researcher played simultaneously an emic role (an insider) and an etic role (an outsider). The emic role relates specifically to lecture attendance from the beginning to the end of the session. However, attendance is restricted to observation with no intervention- this is an etic role of an objective viewer who was trying to investigate deeply a matter of concern.

➤ Permission: although administration consensus (the dean agreement) could be met, informants were not aware that they were observed. In fact, informed consent is still problematic in qualitative research, especially in observation. Not having permission from the informants, especially teachers, did not pose any problem for the simple reason that the context where observation took place (lecture hall) did not require ingenuity to gain access.

➤ Data recording: the observer relied exclusively on note taking. Because no consent was sought from those being observed, neither tape-recording nor video recording were used for ethical ends. Note-taking implies that the observer must be present in the research site to record the notes of interest. Being present is beneficial in a variety of ways in that it makes it possible to check the contours of talk (e.g. intonation), nonverbal behaviour (facial expressions, eye gaze, etc), who interacts with whom, how the subjects communicate with each other, and how much time is spent on various activities (Schmuck, 1997). Data obtained through the eyes and the ears are both reported in the observation notes. Recording was selective and went around points that the researcher wanted to answer (especially those indicated in the observation template). During or immediately after the observation period, notes were developed. The researcher did not depend on memory alone for reconstructing field notes as memory is selective and the recall ability diminishes with time. The daily notes were used to construct the final



observation report- a written photograph- which provides an in-depth description of the situation under investigation (this is besides the observation templates)

➤ Who to observe: Subject to classroom observation are first year students of Biology, section one.

To describe, interpret and analyse the teaching/learning situation, observation is meant to provide information about:

1. the role of students in the learning process, precisely students' participation;
2. Characteristics of the students' linguistic behaviour.
3. Although they were not directly concerned with the observation process, the teachers' linguistic behaviour and the extent to which they may/may not pay attention to students' (in)competence in the language of instruction (French) was also surrounded from a general angle.

To meet the objectives of the present study, an observation template was constructed to guide the researcher's observation. The template is divided into two parts as shown in figure 3.2, sketched below. A close examination of such a template reveals that observation revolves around verbal interaction inside the classroom. However, it is worth mentioning that the field notes did not only consider a record of data on the pre-defined template. They also included:

- ✓ Students' nonverbal behaviour, and whether they seemed interested or not;
- ✓ the researcher's personal comments on the learning situation in general;
- ✓ interview data: in our context, these encompass just snippets of interchanges, in which the researcher used to ask some students to explain a point of the topic being studied to verify the degree of their understanding.

Such notes were recorded separately. It is of significance to point out that those notes concerning the researcher's personal comments and students' nonverbal behaviour may be subjective inferences and comments, since such observations take account of deductions and personal suggestions. This is in contrast with observation based on a ready-made template which tends to be more objective.

Finally, it should be noted that observation was also carried out beyond the classroom walls, in semi formal contexts (e.g. the faculty corridor) to check other concerns like:

- ✓ The language that teachers use mostly when they meet each other.
- ✓ The language that learners use outside the classroom.
- ✓ whether students complain on the learning situation or not.

### **3.6.2 The Questionnaire**

The questionnaire, as the name implies, refers to a string of questions or statements directed to a defined sample population with the aim of bringing out respondents' knowledge, behaviours, feelings, perceptions, opinions, attitudes and so forth (Phellas et al, 2011). Such questions must be systematically hoarded and well organized. Although qualitative and exploratory data can be generated, namely with open-ended questions, questionnaires are basically used as quantitative data collection instruments. There exists two types of questions and therefore questionnaires are also of two types: structured and unstructured. In the structured questionnaire, also known in the literature as closed-ended, fixed choice and restricted form, informants are offered a kind of guidance in that it is made up of a pre-selected set of responses. In other words, the response is defined by an answer format from which the informants have to select what best reflects their opinions. The scales for such responses can be single response, dichotomous response (generally calls for a 'yes' or 'no' answer), or polytomous response where informants have more than two options (Adèr et al, 2008). Responses can also be scaled questions, generally rated from strongly agree to strongly disagree, very good to very bad, etc. Unstructured questionnaires, however, are formulated with unrestricted, open-ended questions that allow the respondents to speak their minds openly as the answer format is created with no pre-determined sets. Here, enough space is left for the respondents to provide their feedback.

Each type of questions has its advantages but certainly is not without disadvantages. Structured questions are generally used to cover a sizeable population, and they are intended to gather quantitative numerical data. This translates that the possibility for generalization of the findings to the entire population is high. Such questions are easier, at least less challenging, for both the respondents and the researcher. They place less cognitive load on respondents who only have to select answers from a defined set of responses. Therefore, a higher response rate is expected, and a lesser time is required. For the researcher, pre-selected items make it easy to tabulate, process and analyse the data (Timpany, 2011). One of the main limitations of the structured questionnaire is that it restricts the informants to what is indicated on the answer format; nothing beyond can be reached.

On the other hand, the open-endedness of questions makes the unstructured questionnaire a bane and a boon at the same time. Such questions allow for qualitative data and much richer information can be gained. However, they are effort-demanding and time-consuming as they turn out a higher cognitive load since the informants have to think hard to come up with input making a lower response rate possible; lesser quality data may also surface. On the part of the researcher, the data are hard to measure, tabulate and then process due to the varied, probably unanticipated responses that would have been revealed (Siniscalco and Auriat, 2005). As such, the unstructured questionnaires are not recommended with a large population; but small samples make generalizability of the findings highly problematic. In sum, the unstructured questionnaire provides what the structured questionnaire misses and vice versa.

As far as the present study is concerned, the questionnaires used are of a structured type. The pre-defined statements go in compliance with the research questions and allow checking the research hypotheses. Structured items were favoured because of the tremendous advantages they render on behalf of the respondent and the researcher. Also, qualitative data is obtained through other survey instruments (i.e. interviews), and therefore there was no need to depend on a hybrid questionnaire.

Two questionnaires have been postulated: one for first year students in the different departments of the Faculty of Biology and Geology; the other was delivered to teachers in the same faculty. Both questionnaires begin with an introductory part describing the purpose of the study. The questionnaires are anonymous. Anonymity is crucial in many senses; at least strict confidentiality of information is assured. Also, because language attitudes are measured through direct methods, anonymity is supposed to reduce, if not eliminate, social desirability effects and to engender objective responses. To put it another way, anonymous questionnaires makes the informants more likely to reveal true, *implicit* attitudes rather than socially-desirable *explicit*, probably faked, attitudes. As far as the response scales are concerned, a polytomous scale was offered with most items in order to avoid restricting the informants. Items that go around language attitudes measurement are usually measured on *Likert scale* (original or modified) or Osgood's et al (1957) *semantic differential technique* (pairs of **bipolar adjectives**, i.e. with opposite meanings such as good-bad, each placed in the opposite extreme of a **seven- point scale**). In the current study, most of attitudinal items are measured on Likert scale.

### 3.6.2.1 Students' Questionnaire

The questionnaire was designed to provide answers to the first two research questions within a quantitative approach, that is (i) the extent to which French as medium of instruction impedes the learning of content subjects (ii) in addition to students' attitudes towards the Arabization of sciences. The questionnaire was administered in mid February (2015), i.e. after more than five months since the start of the academic year (September 2014). It was felt that informants had been offered enough time to be adapted to the new learning environment (from secondary school to university). The questionnaire was distributed during the sessions of French-seminars presented in the lecture hall where large numbers of students were expected to attend. Choosing French sessions was the optimal option since more cooperation on the part of the lecturer could be met. Lecturers were ready to lend a hand as they are language teachers familiar with such kind of investigations.

Choosing a seminar instead of practice sessions was also purposeful: in practice sessions, there are groups of small numbers and permission to administer the questionnaire is required from each teacher who may or may not be cooperative.

After having explained the rationale of the study and clarified the statements of the questionnaire, the researcher asked for assistance from the lecturer to distribute the questionnaire. The end of this is that high response rate might be met as the request comes from a superior (lecturer), and therefore there is some implied sense of compulsion. The other reason is that the researcher used to be an undetected observer for a period of time within section one (Department of Biology), and subsequently the questionnaire could not be self-administered. Where need arose, the lecturer could make little clarification but no interpretation of the questionnaire statements to avoid any kind of biasness. The questionnaire was distributed during class-time and the respondents were required to hand them in immediately at the end of the session. It should be noted that enough time was offered allowing the students to read carefully, think aloud and select among the available choices. Doing it in the classroom guarantees obtaining the maximum return rate. If the informants were asked to do it at home, they might be slow, if not unwilling, to answer and return the questionnaires later. Also, those present at now may be absent next time.

The questionnaire was composed in Standard Arabic as this is the language all the students know (foreign students are excluded), and therefore all the informants were offered equal chances to understand perfectly and then answer appropriately. As for the format, the questionnaire is composed of three sections. Section one offers general information about the respondent, namely gender and affiliation. It also requires the informants to provide an approximate self-evaluation of their command of the language of instruction (i.e., French) in terms of comprehension, speaking and writing abilities. Though reading was not addressed, all respondents are normally able to read. However, the ability to read should not be confused with the ability to comprehend the (French-composed) reading material as it will be discussed in the following chapter (see section 4.2.1.3.2).

Certainly, the validity of self-evaluation of the degree of control over a language remains questionable (see Marley, 2002: 358). To minimize this issue, a four-point scale, ranging from low to good, was offered and students were required to select what best reflects their opinion. Restricting the options would exacerbate the situation. As another remedial procedure, teachers were also required to assess their students' linguistic abilities (see Appendix C). Teachers are actually reliable sources as they frequently interact with students, correct their papers (exams, research reports, etc) and so forth. However, this does not mean that judging a student linguistically is not problematic; suffice it to mention that a linguistically-competent student might remain silent showing a spectator-like position during classes. If this is the case, not participating does not imply an inability to interact verbally (ask/answer questions).

Section two of the questionnaire is made up of two sub-sections. The first one deals with the learning difficulties the students might be confronted with. On the basis of the pilot study, six major difficulties could be identified for they had been frequently repeated by those who participated in piloting. Therefore, the informants were offered six options to classify in a rank order, i.e. to arrange them from the most difficult to the least difficult (see question 3, Appendix B). The second subsection was meant to determine the impact of French as medium of instruction on quality learning. Four items make up the construct of this sub-section. Items 4 and 5 are positively worded, whereas items 6 and 7 are negatively worded on a four-point scale, including definitely false, partly false, partly true and definitely true. In fact, such items go around four major learning areas: the degree of content understanding, comprehension of French-composed reading materials, participation in the classroom and performance in examinations, respectively. In sum, together the two sub-sections are meant to render an adequate answer to the first research question through numerical data.

Section three is concerned with the measurement of students' language attitudes, i.e. the second research question and its associated hypothesis. It is divided into three subsections: (i) perceptions of Arabic as medium of instruction compared to French; (ii) attitudes towards the implementation of Arabization in the scientific domain; (iii) and attitudes towards knowledge of French.

As for the first subsection, it is made up of three items (8, 9 and 10); all of them are meant to compare studying in Arabic as compared to studying in French. The first two items require students to classify the language (Arabic or French) which is less demanding in terms of time and effort while reading and/or writing. The students are offered a polytomous response scale of 'less', 'more' and 'same', from which they can choose what best reflects their belief. The last item (i.e. 10) is made up of six proposals ('a' to 'f'): the first four items ('a' to 'd') are positively worded, whereas 'e' and 'f' are negatively worded. These are some proposals of the expected outcomes of using Arabic, compared to French, as language of teaching/learning. What should be stressed is that this subsection aims to measure the students' attitudes towards either language within the same *level of specificity*, i.e. attitudes towards Arabic and French as *media of instruction*. This is one level (specific attitudes); attitudes towards Arabic and French as languages are of a different level (general attitudes). As mentioned earlier in chapter one (cf. section 1.3.2.4), Fishbein and Ajzen (1974) insist that attitudes towards an object (here Arabic and French) should be measured within the same level of specificity if satisfactory results are the final end.

Subsection two revolves around the students' attitudes towards Arabization in general and the Arabization of sciences in particular. It includes nine items (11 to 19) which are all positively worded. The informants are required to pick among the available options on a five-point Likert scale which ranges from strongly disagree to strongly agree.

➤ The first item (N 11) is crafted in a way that may *indirectly* gauge students' attitudes towards Arabization.

➤ Items 12 and 13 are in a way or another closely-related to item 10 in the afore-mentioned subsection. Being repeated here aims to verify consistency in responses, i.e. any significant mismatch between students' responses to item 10 and their responses to items 12 and 13 would be of significant importance in the analysis.

➤ Of all the items of this subsection item 15 is the most important one. It is worded this way: "If I had the choice, I would continue my higher education in the same field but in Arabic". The wording of this item may help to measure the attitudes *indirectly*; this translates that the responses for such an item may divulge *real, implicit* attitudes towards the use of Arabic in teaching sciences.

➤ Items 16 and 17 measure attitudes towards Arabization under the availability of basic requirements in the language of instruction (enough reading materials and linguistically competent teachers).

➤ The last item (N 19) is also of paramount importance as it aims to explore the extent to which the students are found to support, and not only to theoretically accept, the implementation of Arabization, i.e. whether they are for or against a top-down imposition of Arabic in higher education. The point which should be raised is that any significant discrepancy between the responses to the previous items and to this item is likely to introduce a degree of uncertainty, i.e. whether the overtly stated attitudes are real (covert) attitudes or not. To put it another way, if the students, for example, show positive attitudes towards the use of Arabic in instruction but they show objection on a political imposition of Arabic, then the students might be said to have revealed no other than *explicit* positive attitudes which do not automatically match their implicit attitudes.



Subsection three goes around attitudes towards French. In fact, items of this subsection measure the informants' attitudes towards French within two levels of specificity, as explained below:

➤ Items 20 to 24 purport to measure students' attitudes towards the use of French in instruction (specific attitude); this is more or less an extension of the first section of the questionnaire. Such items are positively worded for French and, simultaneously, negatively worded for Arabic (which is directly or indirectly referred to).

➤ Items 25 to 30 explore the students' attitudes towards French at a different level, i.e. learning, or knowledge of, French instead of learning *in* French. Such items list a variety of the benefits that can/ cannot be gained if someone has a strong command of French. Items 25 to 28 are positively worded, whereas items 29 and 30 are negatively. These last two items address the value of knowledge of French vis-à-vis knowledge of English.

### **3.6.2.2 Teachers' Questionnaire**

The questionnaire was handed to teachers through administration by the mid of February. Each department within the faculty under investigation has mail boxes for teachers, and therefore each teacher received a copy of the questionnaire with a cover letter, the content of which has a personal touch explaining the important role of the teachers in the making and/or implementation of language policies.

Unlike the students' questionnaire, the one administered to teachers was composed in French. The motivation behind such linguistic choice is that all the teachers know French (the language of instruction) but mastery of Standard Arabic remains a personal matter especially with regard to the old generation of teachers who received an almost French-based education during their career. Employing French was meant to offer equal opportunities for all the teachers to understand the statements flawlessly and answer fittingly. The introductory part of the questionnaire provides general information about the teacher's affiliation, work

experience but most importantly his/her pre-university education (Arabic-educated, or bilingually-educated).

The questionnaire is made up of two main sections. Section one goes around teacher's *beliefs* and perceptions towards French as a medium of instruction vis-à-vis the linguistic abilities of the *current* Algerian students. It is constructed with four items. What should be stressed is that the teachers are not restricted to single or dichotomous response scales. Instead, they are offered a variety of choices on a polytomous response scale, as shown below:

➤ The first question requires the teachers to evaluate their students from a linguistic standpoint, i.e. their degree of command of French on a four-point scale. As mentioned earlier, this was used as a cross-verification procedure of students' linguistic self-evaluation. The more compatible the results of the teachers and the students for the same item are, the higher validity is.

➤ The second question, which is negatively worded, verifies whether the teachers perceive the students' control over French sufficient to learn content subjects efficiently or not. Because the questionnaire covered not only first year teachers but also those who teach students at advanced levels, the responses to such item are of paramount importance in that they provide clues about how much students develop their bilingual competence through the years of an exclusive use of French in instruction/learning.

➤ The third question aims at gauging the teachers' *beliefs* about offering lectures through French and whether such a situation characterized by an abrupt switch in the medium of instruction from only-Arabic to only-French constitutes a heavy burden to learners or it does not entail any serious complication (similar question was also addressed to the students, see Q 3).

➤ The fourth question, which is actually a follow-up question to the third one, is meant to examine whether the linguistic issue (this is of course if French- as language of instruction- is really found to constitute a real hurdle) is restricted to first year students or it persists at advanced levels.

In sum, this first section is dedicated to answer the first research question. In other words, it aims at providing data- from a second source- that either confirm or cancel out students' responses (section two of the students' questionnaire). Conformity between the teachers' and the students' responses will certainly render the results categorically valid. Any significant disparity between the two sources is likely to introduce validity problems.

Section two is meant to measure the teachers' attitudes towards the Arabization of sciences, i.e. it attempts to answer the third research question. It consists of four subsections, as discussed below:

1. The first one is about the teachers' perceptions of Arabic as medium of instruction; French is the reference point (comparison). Items of such subsection are actually the same ones directed to the students (see Q 10). This is meant to verify whether the teachers and the students share approximate views or have different perceptions towards the expected advantages/disadvantages that Arabic, compared to French, may/may not endow. Here again, the informants are offered a variety of options (a three-point scale constructed of 'yes', 'no', and 'not necessarily') to score the extent to which the items exemplify them.

2. Linguistically-competent teachers are a prerequisite for the successful implementation of Arabization in scientific institutions. Therefore, the second subsection revolves around the linguistic abilities of the policy-implementer (i.e. classroom teachers); such a step must precede teachers' attitudes towards Arabization. In fact, six items build this subsection; they are all positively worded and designed to be measured on a five-point Likert scale ranging from strongly disagree to strongly agree:

➤ Items 7 and 8, which are in fact two versions of the same content, only address the *theoretical* possibility of using Arabic to teach sciences. As such, any negative answer to such items is supposed to provide indications about *real* (negative) attitudes of the informants as the items do not address the *practicality*, but rather the *possibility*, of using Arabic (recall that all languages, including non-standard varieties, are of equal status as long as they fulfill communication).

➤ Items 9 to 11 tackle the teachers' ability/inability to lecture in Arabic. The most important item is number 11 which addresses *explicitly* the ability to use Arabic under macro pressure (e.g. ministerial regulation), but it actually measures *implicit* readiness (motivation and/or attitude) to learn (for those who do not know) and/or use Arabic. A comparison between the responses to items 9 and 10 and responses to item 11 is necessary. Any difference is meaningful. If an informant states, for example, that he cannot use Arabic to lecture, and he discloses that he can train himself to deliver lectures in Arabic in case a top-down decision requires him to do so, then his answers will make judging his true attitudes extremely problematic.

3. Subsection three, which consists of six positively worded items, tends to measure teachers' attitudes towards the implementation of Arabization:

➤ The first item (N 12) is the most important as its wording patently takes account of two preconditions required in the language of instruction (teachers who master that language and enough reading materials, Bowers 1968). The availability of such preconditions makes disapproval of this item justified with no other than 'implied' true explicit negative attitudes towards the use of Arabic.

➤ Item 15 tackles the degree of readiness to participate in the Arabization policy, i.e. whether the teachers, as academicians and researchers, are motivated- at least theoretically- to produce scientific documents in Arabic.

➤ Items 14, 16 and 17 measure rather the degree of acceptance, at least hypothetically, of Arabization.

4. The last subsection is about attitudes towards French. In fact, two levels of specificity are tackled: while items 18 to 21 go around the language (Arabic or French) that teachers favour to deliver lectures, items 22 to 24 make no reference to Arabic but rather address the international value of French in the scientific domain vis-à-vis English. The wording of item 20 should be taken into consideration; it is structured in a way that measures the attitudes *directly* as it indicates rejection to deliver lectures in Arabic even when one can do it hands down. This is its blessing and curse at the same time. On the one hand, measuring attitudes directly does not always offer faithful results as the informants might not reveal covert attitudes; publically-stated attitudes might be only to meet what they think is socially desirable. On the other, any teacher who would express agreement with an item structured in this way is systematically said to have revealed true attitudes (i.e. covert attitudes match perfectly overt attitudes) - this is the top end of such item.

In order to incur less cost and ease the analysis of the data, the Statistical Package for Social Sciences software (SPSS, version 17.0) was used. The analysis exposes descriptive statistics, namely *absolute* frequencies and ratio statistics. Sometimes, bivariate statistics are also used, namely *mean*, *median* and *standard deviation*. The mean in such a context is a sample mean ( $\bar{x}$ ):

$\bar{x}$  = the sum of the values divided by the number of values. In other words, means refers to a central value of a discrete set of numbers (Underhill and Bradfield, 1998:181). This can be illustrated as follows: e.g. sample of 20 students reported reading 5, 6, 8, 9, 11 books a year, respectively. The sample mean is:

$$\bar{x} = \frac{5+6+8+9+11}{20} = 1.95$$

20

The median can be identified by listing the values in a numerical order from the lowest to largest then picking up the value which appears in the middle of the list. In the above mentioned example, the median of (5+6+8+9+11) is 8. If there is

an even number of observations, then there is no single middle value. In such a case, the median is usually the mean of the two middle values.

### **3.6.3 The Interviews**

The interview is another type of survey research. As a scientific instrument for data collection, it is a question-answer verbal exchange involving at least two participants: the interviewer/researcher who initiates the talk, and the key informant who is the principal source of data. The interview permits the researcher to gain affluent information as well as knowledge from informants, including attitudes, views, feelings, and motivations on definite matters of concern to the researcher. It also offers insights on the informant's experiences and affords a deeper understanding of social events. Unlike the questionnaire, the interview falls under the realm of qualitative research.

The interview has a number of gains. It assures high response rate, and gives the possibility to conquer highly personalized data opening the door to opportunities required for probing (Gray, 2004). The availability of the interviewer makes it possible to back in answering questions, and therefore more intricate questions that may provide in-depth understanding can be directed to the interviewee. Just like other data collection tools, the interview also has drawbacks. It is time-consuming and skill-demanding, and less efficient when sensitive matters are dealt with. Biasness may also take place especially when the interviewer takes the lead.

Three types of interviews are generally acknowledged: structured, semi structures and unstructured. The former is the one in which the same questions are directed to all the informants using a guide of pre-selected questions. This is its blessing and its curse: it allows the interviewer to control the topics and guide the conversation. But, simultaneously, the interview guide may be highly selective and may not allow obtaining vital data that the interviewer may not know or anticipate (Gill et al, 2008). The semi-structured interview also relies on a predetermined set of key questions. However, the interviewer enjoys more flexibility and additional questions can be formulated during the interview in accordance with what the

respondent says. The last type, i.e. unstructured interview, is non directional and might be thought of as a casual conversation. Because respondents can converse openly, rich information including self perceptions and interpretations in addition to information which did not seem crucial or not even thought of by the interviewer, are likely to surface. With such a type, the questions are constructed during the line of the interview; this requires an expert interviewer, however.

In the present study, the interviews were conducted with teachers and students as well. Interviews were kept as the last utilized instrument. The data obtained through observation and the questionnaires served as the basis to formulate the interview guides; a reason that observation results are checked via interviewing and also that some interview questions intersect with the questionnaire items. This is of paramount importance to deeply understand the reasons behind facts and responses reached through the two other instruments (observation and questionnaires).

It is also of significance to mention that the interviews were conducted *face-to-face*. Such in-person contact has fabulous gains, most noticeably is that the interviewer can be a spring of motivation, assist the interviewee in understanding the questions and even correct misunderstanding- an option furnished by face-to-face interviews and missed in other data collection instruments. In such interviews, as opposed to telephone interviews, the researcher plays a double role of interviewer and observer. Besides probing the answers of the participants, the interviewer can also observe their behaviour; hence capture their emotions and non-verbal cues. Such cues and reactions can direct the interviewer (Holbrook et al, 2003; Jäckle et al, 2006). The basic problem with face-to-face interviews is that it can be a source of biasness. In the course of the interviews, the researcher tried to haul out spontaneous responses without any sort of bias using an appropriate intonation and emphasis. Assessing the answers took no place. Building on Chartrand and Bargh (1999) remark, the interviewer's nonverbal expressions, which are likely to be infectious, were given high considerations. Therefore, cues expressing agreement or disagreement, surprise or satisfaction, etc were avoided.

Ethical issues were also emphasized. The purpose of the research was explained at the beginning of each interview. Because face-to-face interviews systematically exclude anonymity, confidentiality was assured to all the interviewees. Regarding data recording, no electronic device was used since it was noticed that many respondents expressed a kind of reluctance either verbally or non-verbally. Therefore, it was necessary to rely on a note-taker (interview guide) and draw on memory to develop and elucidate the notes instantaneously after the interview. The questions were carefully selected and no personalized sensitive questions were directed. If no answer was given to a particular question (which seldom occurred), skipping to a different question was the common option and a mark (refused) was put near the question.

What should be stressed is that measuring language attitudes directly is no easy task (see section 1.3.2.5.2); the situation must be more complicated with face to face interviews. However, one can guarantee that social desirability- the main pitfall of direct measurement of attitudes- was not really prevalent in our data. This assertion is made on the basis of the achieved results: the interviewees were apparently convinced with what they said and their facial expressions and nonverbal engagements did not signal clues that may introduce uncertainty; they sometimes revealed what the researcher did not expect; they defended their points of view with evidences. The teachers did not seek to reveal socially desirable responses as far as Arabization is concerned. This goes in compliance with findings of other researchers. Drolet and Morris (2000), for example, found that face-to-face contact (as compared to aural contact only) improved cooperation on complex tasks, and this effect was mediated by rapport: face-to-face contact made the informants feel more “in synch” with each other. Likewise, out of their study of telephone and face-to-face interviewing Jäckle et al (2006) reported that the gains of trust built up in the face-to-face interview outweighed any shortcomings due to the lack of anonymity.



Regarding the way the interviewees were approached, it was opted for an intercept approach to question students where the sample population was randomly chosen and interviewed generally in the corridor of the faculty. As far as teachers are concerned, interviews took place in different places within the faculty: sometimes in the teacher's office, others in the corridor, still others in the café while having a drink. In fact, interviews were conducted where the teachers wanted, sometimes on the spot, others at a scheduled date<sup>43</sup>. In both cases (teachers and students), it was opted for semi structured interviews because such a type mixes the flexibility of the unstructured interview with the directionality of the structured one. The topics to be dealt with were pre-fixed in the form of an interview guide with enough space to record notes, but the questions were only constructed during the conversations when the interviewer reacted verbally with follow-up questions and probes. The interview guide helped guarantee that none of the essential concerns was missed during the conversation. However, such a guide did not include a record of questions from which the interviewer was reading; this is to eschew a condition in which the interviewee reveals short responses and wait for the coming question.

### **3.6.3.1 Interviewing Students**

The language of the interview is (dialectal) Arabic because this is the linguistic form everyone masters, the form that ascertains spontaneity in conversations. The period of the interview varied from one respondent to another depending on what they revealed and subsequently the number of follow-up questions. In general terms, the period varied between 17 minutes and 29 minutes per person. The pre-defined guide of the students' interview was designed to cover three main topics. The first two ones are meant to answer the first research question within a qualitative approach; the third topic goes around the second research question. Possible sub-topics could also be prompted depending on what the respondent said. The interviews proceeded this way:

---

<sup>43</sup> This approach to interviewing is referred to as door-to-door interviews (Sincero, 2012).

### ➤ Topic one: Perceptions towards the learning situation

This is an introductory topic. Focus is on how students perceive the learning atmosphere: what is positive and what is negative, whether it is inviting or demotivating. Then, independently of whether it is raised or not by the interviewee, the linguistic dimension should be tackled, i.e. whether the interviewee is found to have linguistic problems in the learning process or not. Here, the opening question must prompt him/her to give necessary feedback. A possible question can be: *Some students consider French a serious obstacle to efficient learning, others do not. What do you think?* The question does not consider the informant in person but it only requires him or her, as a member of the students' community, to comment about the situation.

In sum, this topic must cover what happens inside and outside the classroom. Because it builds on the questionnaire results, the questions should provide answers to the extent to which students understand content subjects during classes, whether they find content subjects hard or hard only due to the language of instruction, which content subjects are found demanding and why, the extent to which students interact or fail to interact verbally with the teachers and the reasons beyond remaining silent during the classes, how much they understand French-composed scientific materials (if they actually read), how they prepare for exams and what content subjects are more challenging to prepare, and the extent to which they find the lecturer helpful.

### ➤ Topic two: Psychological effects

This topic interweaves with the preceding one and can be thought of as a follow-up of what the interviewees reveal. Its concern is to seek whether content subjects delivered through French engender the same psychological effects that foreign language learners are faced with or not (e.g. anxiety). The other equally essential point is that if the students do not possess sufficient competence in the language of instruction, what strategies do they rely on to bypass the language barrier?

### ➤ Topic three: Language attitudes

This part draws on the interviewees' attitudes towards Arabic and French. It includes some questions like:

- Opening question: what language (Arabic or French) do they prefer as a medium of instruction? Why?
- If the interviewees are found to be linguistically incompetent, they will be required to state what language they prefer if they supposedly had a good command of French. The rationale is that a question of such a type may help to examine whether attitudes towards French (if they are negative) are defined by the linguistic incompetence or other reasons are also strong determinants of the attitudes.
- Attitudes towards Knowledge of French: do they consider knowledge or mastery of French beneficial? Why?
  - Suggestions that might rationalize the situation
  - A closing question may address whether they plan to carry on their studies in the same field or not. If not, what is the future destination and why? This question is built on the basis of the researcher subjective judgment to examine whether French may act as a defining factor in the students' academic orientation or not.

#### **3.6.3.2 Interviewing Teachers**

Since the interviewer and the interviewees are colleagues working in the same University (University of Tlemcen), though in different faculties, the interviews were conducted in a friendly atmosphere where a sense of humour was present. It was not hard to make the interviewees talk and give their points of view. Although the interviews were conducted face-to-face, the teachers did not seek to meet socially desirable answers, especially in terms of Arabization. Their responses to the most direct questions were rapid and definite; they were not easy to manipulate even when some questions that tap the affective component of attitudes (feelings) were raised. Also, code switching was the pre-dominant linguistic

behaviour during the interviews, i.e. alternating between Dialectal Arabic and French. The period of the interview varied between 27 minutes and 43 minutes. In fact, the topic attracted the attention of the teachers as they are highly concerned with the linguistic issue within the faculty under investigation. As far as the design is concerned, the interview guide goes around four main topics, sketched below:

➤ Topic one: Awareness about the language barrier

This part starts with an opening question: “*Many teachers, even students, see that today’s students’ control of French is very low. What do you think?*” The other possible following question is about the reasons for being incompetent. However, the main concern is to check the extent to which the teachers are aware of the (possible) learning difficulties generated by only-French instruction. The teachers are also required to clarify whether they consider the students’ incompetence in French while lecturing or not (e.g. moving slowly, using a simple language and avoiding complex structures and high stylistic levels, using visual aids, writing on the board, dictating, and also switching to Arabic for clarification when the situation is really requiring).

➤ Topic two: Attitudes towards the use of Arabic

This part is divided into two subtopics (order is not essential), as explained below:

1. The first subtopic is actually an introductory step; it can be initiated this way: *Because the students are incompetent in French, let us think the other way round and instead of trying to find ways to overcome the language barrier, we simply opt for Arabic as a medium of instruction.* Another possible question can be worded this way: *since language is only a means of communication, the same content delivered through one language can be delivered through another. Yes or no?* If the respondent gives a ‘no’ answer, the interviewer requires justification. It is possible for the interviewer to defend the ‘yes’ answer since strong evidence is abundant (this is not a sort of biasness, this is a fact); a conversation of such a type may help capture the attitudes.

2. The second subtopic has to address the Arabization of sciences in a question like “*Arabic can be used to teach sciences. What do you think?*” The interviewer has to make the point clear that the end of the question is to know the *opinion* regardless of whether the interviewee is for or against, competent in Arabic or not. This is an open question ‘*What do you think?*’ which permits to elicit a range of responses, each with its own justifications. Then, the interviewer must examine the *personal* view of the interviewee and whether (s)he accepts and supports the idea of Arabization or not. Of course, the difference is apparent between someone who accepts, i.e., is convinced with the practicality of Arabization, and someone who supports, i.e., showing eagerness and enthusiasm towards its implementation. Backing answers with evidence is encouraged. The central question that should be addressed is: “*If all conditions, including sufficiency of reading materials and teachers who can lecture in Arabic, do you support the idea of science Arabization?*”

➤ Topic Three: Suggestions

This topic invites the interviewees to provide suggestions either on how to help the students overcome the language barrier or on what language policy must be adopted. Suggestions from the interviewer that checked the interviewees’ opinions and beliefs may also take place.

➤ Topic Four: Personal information

This topic is also of significant importance though it may seem detached from the previous questions. Here two subtopics are discussed.

1. Being teachers and researchers at the same time, the interviewees go through training periods abroad and many of them are engaged in scientific collaboration with foreign institutions. The question is where they receive such training and with whom they collaborate.

2. The second subtopic is about their linguistics abilities in English. The interviewees are required to clarify how they find the situation beyond the classroom context (i.e., teaching): when conducting research, participating in international conferences, meeting scientists from non-Francophone areas, etc.

### 3.7 The Pilot Study

In social sciences, piloting is used synonymously with feasibility studies which are "small scale version[s], or trial run[s], done in preparation for the major study" (Polit *et al*, 2001: 467). It may also refer to the pre-testing of a particular research tool (Baker, 1994). Any research, even when conducted by an expert, necessitates a pilot study. As Thabane *et al* (2010) observe, piloting:

- offers a prospect on the feasibility of a whole array of concerns related to the conduct of the research,
- provides advance caveats about the non-practicability of the research design, validity of data collection measures, research timing, estimation of the recruitment rate, etc,
- and above all, it gives the opportunity to fix the problems before the study proper.

Taking account of De Vaus' advice (1993:54) "Do not take the risk. Pilot test first", the present study was only conducted after running a pilot study in September 2014, with the avowed aim to make the necessary modifications prior to the major study. Piloting was important in a number of ways:

#### 1. Collecting preliminary data:

Using a preliminary interview guide, important data could be collected out of piloting. Besides refining the research hypotheses, the proper versions of the observation template, interview guides and the questionnaires were largely built upon the pilot study. In accordance with Dörnyei's (2003:63) view that "an integral part of questionnaire construction is 'field testing', that is, piloting the questionnaire", a section of the students' questionnaire was made on the ground of

the pilot study. This relates to section I- the difficulties students are confronted with when learning content subjects.

Regarding the interview guides, insights could be gained from the teachers who participated in the pilot study. Consequently, a question gauging opinions of both teachers and students was formulated (*What do you think about providing sciences in Arabic and also in French, then the students will have the right to make the choice that best fits them?*). However, the most significant addition was the last topic in the teachers' interview guide (personal perceptions); the results of this topic were useful in the discussion of the teachers' attitudes.

## 2. Fixing the type of questions:

Conducting a pilot interview with the students helped fix a major flaw which relates to the type of questions. Although open-ended questions revealed deeper understanding of the learning atmosphere in the research site, lots of information that are irrelevant to the study surfaced. This was an impetus to opt for a semi-structured interview based on a pre-fixed guide which helps keep the interviewees focus on what is pertinent, making it easier to code the data. Also, since qualitative data could be gained through the semi-structured interviews, statements of the questionnaire were designed in a structured manner (closed-ended questions) to measure the different variables quantitatively.

## 3. Defining the research process:

Other major insights gained through the pilot study relate to:

(i) An initial foray into the research site facilitated the choice of the setting for conducting classroom observation as well as the content subject to be observed. Selection was made on seminars of cell biology presented in the lecture hall. Practice sessions done in the laboratory with small groups did not seem to serve perfectly the purpose of the observation. However, it is good to remind that some observation sessions in the major study were conducted during the practice sessions of cell biology.

(ii) Identifying logistical problems that relate to distributing and collecting questionnaires: it was decided that distributing questionnaires would be more appropriate and efficient during seminars where large numbers of students could attend. Such a decision made it easy to cover a significant sample population and provided a high return rate since the questionnaires were distributed during, and collected at the end, of French sessions. The choice of French sessions was also purposeful as the teachers are familiar with such a type of research and they were ready to lend a hand when possible. As far as teachers' questionnaires are concerned, it was administratively recommended that the questionnaires bearing the faculty stamp would result in a good return rate. This advice was taken into consideration. However, providing a stamp, even a cover letter, did not influence the return rate which was quite low.

#### 4. Trying out data collection tools:

After drafting the questionnaires, interview guides and the observation template, it was necessary to pre-test them in order to determine their weaknesses. The nature of the questionnaire, being written and self-completed, makes pre-testing its functionality a compulsion. This should be done to uncover ambiguities that are not apparent to the researcher or are not seriously taken into account. In this respect, Cohen *et al* (2005:260) confirm that “the wording of questionnaires is of paramount importance and that pretesting is crucial to its success”. After having colleagues read it, the final draft of the questionnaire addressed to first year students was pre-tested with seven students to verify whether they would understand the items in the same way anticipated by the researcher or they would interpret them differently. The aim was also to locate issues related to the wording of the items. The teachers' questionnaire was also subject to piloting with two teachers (biologists), working in the faculty of medicine.



Those who participated in the pilot study, being teachers or students, are similar to the sample population for whom the questionnaires were designed. These participants were not considered in the study proper so as not to violate the rules of validating the findings. Also, the data collected during the pilot study was not included in the analysis of the major study results. Not many comments were made; probably because the questionnaire items are clear being crafted with simple language. Only one item within the students' questionnaire required reconsideration. The term 'decree' in item 19 was not clear for some students. Therefore, a less technical word- law- was included between brackets. No modifications were made on the teachers' questionnaire as no comments were revealed.

Pre-testing tools did not only concern the questionnaires; the final drafts of the interview guides and the observation template were also subject to piloting. However, they were found workable and perfectly went with the research objectives.

### **3.8 Reliability and Validity Considerations**

The criteria of reliability and validity are the bedrock of any research in that they answer the question "how can an inquirer persuade his or her audiences that the research findings of an inquiry are worth paying attention to?" (Lincoln & Guba, 1985: 290). On the one hand, reliability refers to consistency (Kane, 1982), i.e., the more consistent and stable the results are, the more reliable they are. On the other, validity is widely defined as how well an instrument measures what it is assumed to measure (Chanda & Shen, 2009). Two types of validity are generally acknowledged: internal validity and external validity (other types are also recognized in the literature). Internal validity addresses the extent to which a causal inference based on a study is warranted. However, external validity "asks the question of generalizability" (Campbell & Stanley, 1963:175), i.e., how generalizable the study's conclusions are to the general population. External validity is dependent on internal validity. Thus, a research that has little to no internal

validity systematically lacks external validity making generalizability problematic to impossible.

Reliability and validity are intertwined. Reliability is a precondition for validity, i.e. research findings are valid only if the measurement procedure is reliable. But also reliability does not guarantee the research quality which also requires validation of the findings. Therefore, maximizing internal and external validity besides reliability is the end of the researchers.

These two research standards were given ample considerations in the current study through a variety of points:

- Triangulation: it is acknowledged among theorists and researchers that quantitative methods provide greater reliability but lack validity; the reverse is true for qualitative methods (Trueman, 2015). The present study builds on a mixed methods approach to data collection in which both quantitative and qualitative methods are used. This is one way to meet the research standards of reliability and validity (Denzin & Lincoln, 2005). The research questions were not only probed through different research instruments but also verified from different sources (teachers and students). Cross-checking a variable helps avoid shortcomings resulting from using single methods. If the different instruments yield the same conclusions, then the findings are systematically valid and reliable (Golafshani, 2003; Ovretveit, 1998).

- Validity was partly gained through the pilot study which was intended to check the extent to which the data collection instruments were accurately addressing the research questions and prompting the types of responses that the researcher expected. Because the assessment measures fittingly matched the research objectives, validity could be met. The pilot study does not only assert research validity but can also avow its reliability. In this vein, Cohen *et al.* (2007) write that “[a] pilot has several functions, principally to increase the reliability, validity and practicability [...]”.(p. 260)

- Randomization in sampling also guarantees internal validity as it methodically excludes selection bias, i.e. any difference between the entire population and the sample population is, if it occurs, due to chance alone, and not selection partiality. Exclusion of systematic error (bias) paves the way to generalizability (Dekkers *et al.*, 2010), hence giving maximum external validity.

### **3.9 Monitoring Ethics**

Research in the social sciences generally covers intricate matters, not least culture, religion, behaviour and so forth. As such, ethics requires a serious regard during and after the research conduct, i.e., from the inauguration of the problem to the analysis and publishing of the results. In this respect, Babbie & Mouton (2006) argue that the researcher should be attentive to “the general agreements among researchers about what’s proper and improper in the conduct of scientific enquiry” (p. 520). Evidently, one must concern himself with “moral integrity” to ensure that the research process and findings are “trustworthy” and valid (Biber, 2005).

In the present study, which involved human participants, commitment to respect the research ethical issues was a necessity. The chief responsibilities that are indicated in most ethical codes and guidelines worldwide (informed consent, protection from harm, and privacy) were given equal priority, as discussed below.

#### **3.9.1 Informed Consent**

The research site dictates that consent should be met through participants but also through administration.

##### **1. Administration:**

Because the study was conducted in a formal context- an institution of higher education-, asking for administration permission was essential for data collection. Hierarchy was respected and consent was obtained directly from the dean (the first authority) of the Faculty of Biology and Geology, Tlemcen University. The Head of the Department of Biology, where observation took place, also gave his consent. Having met administration consent made it possible to conduct classroom

observation and to distribute the questionnaires. For some statistic concerns, permission was also sought from the vice rector charged of graduate pedagogy. Administration consent was obtained in writing, making the different authorities sign the written documents.

## 2. Participants:

Informed consent elements on the part of the participants, whether teachers or students, were all considered. Such elements (capacity, information and voluntariness) make consent effective (Drew & Hardman, 2007). Regarding *capacity*, all the participants are *competent* subjects being adults able to retain and evaluate information. As far as *information* is concerned, it was the responsibility of the researcher to make the participants understand the purpose of the study, its procedures, and its expected benefits, with focus on the demands built upon them as informants. Because the participants should consent on a *voluntary* ground, no pressure was put on any informant. Further, the participants knew that withdrawal was possible at any time. Here, one must make the point clear that though the students' questionnaires were distributed during the class-time by a teacher, no form of coercion was exercised- they were kindly requested to complete the document.

Informants who participated in answering the questionnaires or who were invited to interview sessions expressed consent *directly* and verbally. Permission to conduct classroom observation was of a *substitute* type. Substitute consent, unlike direct consent, is taken under specific conditions, especially when the participants lack the element of capacity (e.g. children), but this was not the case in our research. It was the researcher's professional judgment which dictated such a choice, especially that the data collection instrument was a non-participant observation aiming at describing what is happening without the necessity to intervene. Consent was met indirectly via the head of the department where observation took place (Department of Biology).

### **3.9.2 Harm**

Another important standard of research ethics is to ensure that the respondents are safeguarded against any harm, be it physical or psychological. Taking account of the nature of the present study and the problems addressed (linguistic), it was clear that their participation would result in no harm. This element was automatically guaranteed as part of confidentiality, as discussed below.

### **3.9.3 Privacy**

In the ethics literature, privacy is generally seen as akin to confidentiality (Oliver, 2003; Gregory, 2003). In the present study, the type of data collected (biodata, attitudes, beliefs and opinions) made ensuring privacy for the participants a first priority. Smyth & Williamson (2004) observe that anonymity is a means by which confidentiality is operationalised. Therefore, the questionnaires of the present study were anonymous: responses were anonymous not only for those who may read the research work but also for the researcher.

Unlike the questionnaires which are self-completed, interviewing certainly excludes anonymity. Therefore, all the interviewees were guaranteed confidentiality. This is a reason why the interviews were conducted face to face involving only the interviewer and the interviewee; no group interviews were conducted. All the data were kept locked up. Also private and sensitive questions were avoided. In fact, the interviews were conducted in a friendly way, in a relaxing setting, and all the interviewees felt free to answer or escape the question. In a word, as affirmed by most ethical codes of research, the informants were promised that under no condition would their identity be revealed without their direct permission nor would their responses be made public or used for reasons beyond those intended for this study.

### **3.10 Questionnaires Return Rate**

As far as the students' questionnaire is concerned, the return rate was 100%. To put it another way, all the 220 surveyed students gave back their questionnaires. Having such complete return rate is due to the fact that the questionnaires were distributed during lectures and students were required to hand them in by the end of the session. Because their teachers took the responsibility of distributing and then collecting the questionnaires, there was an implied sense of compulsion.

As for teachers, the return rate was quite low. Of the staff members recruited in the study (70 teacher), only 22 teachers handed the questionnaire in. This translates that the return rate was under the average, around 31.42 %. The advantage is that the 22 informants are split down the middle; i.e., 11 teachers are arabisants and 11 others are francisants. Such proportionate stratification (same sampling fraction) makes it possible to draw a fair comparison between responses of the two categories.

### **3.11 Limitations and Delimitations of the Study**

Delimitations and limitations impinge on virtually all research projects. The first delimitation of the present study relates to the choice of the problem itself. Instead of investigating the possibility to arabize sciences in the university, the research could go the other way round, i.e., investigating the possibility to adopt bilingual education in the pre-university stage. Because this second option is a matter of hot sociopolitical debate, it was screened off from view.

Another delimitation goes around the target population. The study was concerned with students in the faculty of Biology and Geology at Tlemcen University. Faculties of Medicine, Sciences, or Technology within the same university could also be simultaneously investigated to see whether the learning difficulties due to the medium of instruction (i.e. French) are less, or more, pronounced. Also, the situation in Tlemcen University might be entirely different from it in other universities countrywide. As an illustration, the linguistic issue (poor command of French) is more noticed in the inland and southern parts of the

country, such as Naama, El Bayadh, Bechar, Tiaret, Djelfa, etc. The annual reports of the Ministry of National Education always indicate that such regions score the poorest achievement rates in foreign languages compared to northern (urban) regions. As such, teachers' attitudes towards Arabization might be very positive in such geographical locations. Hence, the findings of the present study cannot be generalized over other faculties of the same university or of other universities; they perfectly fit the context where the study took place. Another delimitation which still has to do with participants is that the study targeted first year students. It would have been more enriching if the study had covered students at advanced levels to see whether the negative attitudes towards the medium of instruction are constant, or they will atrophy in the long run as students advance in their studies, hence developing their bilingual competence.

As far as the questionnaire design is concerned, two delimitations are captured. On the one hand, no space is left for open-ended questions. The justification for the exclusive use of closed-ended items is that qualitative data could be met through other instruments, namely classroom observation and interviews. On the other, although the study is concerned with language attitudes a number of the questionnaire items do not tap on attitudes but rather on beliefs. For example, items 8 to 13 in the students' questionnaire, just like items 5 to 8 in the teachers' questionnaire, are purported to measure the cognitive component of the attitude (i.e. belief) and not the affective component (i.e. feeling). However, the inclusion of belief questions is necessary to the study. For instance, it is not recommended to measure the teachers' attitudes towards Arabization without knowing whether or not they can teach in Arabic.

Last but not least, the study bet on the *direct* approach to attitudes measurement. Measuring attitudes directly is complicated as the participants may repress their true (implicit) attitudes and reveal only what makes them feel socially acceptable (explicit attitudes). Anonymity of the questionnaires was meant to reduce social desirability effects. In fact, even in face-to-face interviews, the interviewees (teachers and students alike) did not seem to reveal socially-desirable answers. Their facial expressions and non-verbal engagements did not reveal clues

that introduce uncertainty. They simply defended their points of view with arguments. However, using the direct and the indirect techniques jointly to measure attitudes might be better.

In terms of limitations, two factors constrained the present research. First, classroom observation was quite difficult in that it took place in the lecture hall where the large number of students attending lectures made it intricate to focus on each and every individual student. Secondly, the questionnaire return rate on the part of teachers was quite low: of the seventy (70) teachers who received a copy of the questionnaire, only twenty-two (22) gave back the copy. It would have been better for the study if we had obtained a higher return rate. However, twenty-two teachers also form a representative sample especially that they are equally divided between arabisant and francisant teachers (12.02% of the whole population).

### **3.12 Conclusion**

This chapter provided a general account of the methodology aspects. The study was undertaken in the Faculty of Biology and Geology at Tlemcen University, Algeria. Such research site serves the purpose of the study in that the language of instruction is French, i.e., a representative case of the abrupt switch in the medium of instruction (from Arabic to French). In respect to the informants, the study is designed to cover teachers and first year students; both of them are directly concerned with language-in-education policy (LiEP). The aim is to investigate the impact of the language of instruction (French) on quality learning. The other equally important objective is to gauge students' but especially teachers' attitudes towards the use of Arabic in sciences, i.e., attitudes towards Arabization. As for data collection instruments, the researcher followed a triangular approach within which quantitative tools (questionnaires) are used in parallel with qualitative ones (observation and semi structured interviews) to cross-check the different research variables. Therefore, analysis of the data will build on quantitative as well as qualitative methods as it will be discussed in the next chapter.



## **CHAPTER FOUR            Data Analysis and Discussion**

### 4.1 Introduction

### 4.2 Part One: Learning attainment through the medium of French

#### 4.2.1 Results and Discussion

##### 4.2.1.1 Students' competence in French

##### 4.2.1.2 Learning Difficulties

##### 4.2.1.3 The impacts of French as MI on quality learning

###### 4.2.1.3.1 Content Understanding: how much is really learned?

###### 4.2.1.3.2 Extra reading: How much is comprehended?

###### 4.2.1.3.3 Participation: does the MI limit students' role in the classroom?

###### 4.2.1.3.4 Examination: How may French impact performance in examinations?

#### 4.2.2 Data Interpretation

### 4.3 Part Two: Students' Attitudes towards the Arabization of Sciences

#### 4.3.1 The Questionnaire Results

#### 4.3.2 The Interview Results

#### 4.3.3 Discussion of the Results

### 4.4 Part Three: Teachers' Attitudes towards the Arabization of Sciences

#### 4.4.1 The Questionnaire Results

#### 4.4.2 The Interview results

#### 4.4.3 Discussion of the Teachers' Results

### 4.5 Conclusion

## 4.1 Introduction

While chapter three provides the methodological design of the current study, this chapter exposes thorough analysis, discussion and interpretation of the results. As this study is articulated around three research questions, three subsequent parts make up the construct of the chapter. Accordingly, each part is meant to provide answers to the related question.

## 4.2 Part One: Learning Attainment through the Medium of French

This part attempts to afford an adequate answer to the first research question which addresses the degree to which the abrupt switch in the MI may (negatively) impede the efficient learning of content subjects. The results achieved through the three research instruments, i.e. classroom observation, interviews and questionnaires, and collected from two different sources (students and teachers), will be presented and discussed jointly. In other words, results will not be separately sorted according to the data collection tool involved.

### 4.2.1 Results and Discussion

As stated above, the results of the three research instruments will be displayed jointly.

#### 4.2.1.1 Students' Competence in French

Table 4.1 exposes students' responses to the different questionnaire items that deal with self-evaluation of their proficiency in French:

Table 4.1 Students' self-evaluation of proficiency in French

	<b>good</b>	<b>quite good</b>	<b>quite low</b>	<b>low</b>
Comprehension	17%	29%	43%	11%
Verbal production	4%	19%	51%	26%
Writing production	4%	22%	49%	25%

Table 4.1 blatantly indicates students' poor command of French. The vast majority (77 %) of them overtly expressed their verbal incompetence; the option 'quite low' scored the highest rate (51%) as opposed to 'good' with a rate of no more than 4%, or 9 respondents out of 220. The same fact applies to writing production abilities. Scores for comprehension shows fairly different results and the respondents are divided between 'quite good' and 'quite low' (29 % and 43 %, respectively); the column for 'good' signaled a higher rate (17%) compared to verbal and writing production. In sum, these results show that students' productive skills remain largely undeveloped in comparison with their receptive skills. Apparently, the most demanding skill for them is speaking. It is worth mentioning that some of those who proclaimed to have 'good' control over French have received additional French language courses. Though some others did not undergo such type of linguistic support, they might have lived in a rich linguistic environment in which French might be frequently used (e.g. educated parents) or they could simply develop significant competence through the years of learning French as a subject in the school.

Since teachers were also required to evaluate learners' competence in French, their results are crucial as a cross-validating process. In fact, teachers form a trustworthy source for they can evaluate their learners in a number of ways, vis., frequent oral interaction, correction of exam papers and research reports, etc). Teachers' results did not contradict those of students; they rather exposed a high degree of consistency. An agreement among the respondents was that learners have 'low' control over French, as demonstrated in table 4.2:

Table 4.2 Teachers' evaluation of students' proficiency in French

	<b>good</b>	<b>quite good</b>	<b>quite low</b>	<b>low</b>
1. Students' command of French is	0%	4.54%	22.72%	72.72%

The interviews did not bring conflicting results. Consent among the six interviewed teachers could be easily met as all of them expressed dissatisfaction about the profound linguistic incompetence of the current generation of learners. However, teachers raised the point that it is more likely to find some students within the promotion who have fairly good control over French; such students, they added, are the exception rather than the norm.

#### 4.2.1.2 Learning Difficulties

When students were required to provide a rank order of six learning difficulties they are faced with (from the most to the least difficult), it became evident that the linguistic issue is the major one, as graphically presented in figure 4.1:

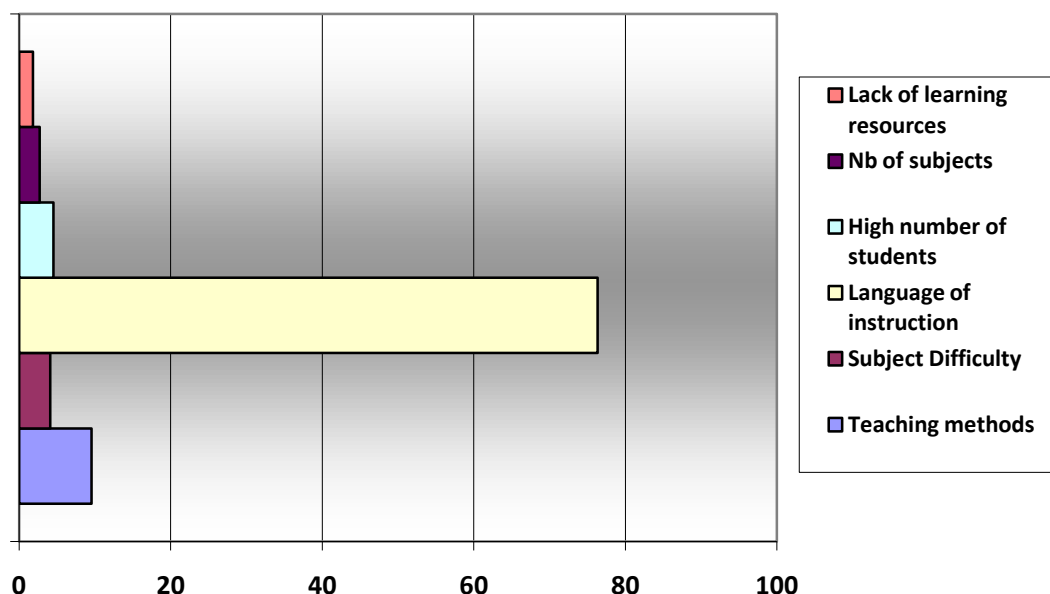


Fig. 4.1 Students' ranking of learning difficulties

As figure 4.1 yields, the upmost difficulty rate fell into the language of instruction (French) with a percentage of 76.36% (or 168 respondent), followed by teaching methods (9.54%), then high numbers of students in the group (4.54%). Of the 220 respondents only 9 students (4.09 %) perceived the difficulty of subjects as the first major problem. Building on a margin of error of 5 and a confidence level of 95%, we can be 95% sure that if we had addressed the question to the whole

population between 71.36% (76.36-5) and 81.36% (76.36+5) would have mentioned that the medium of instruction is the most extreme obstacle they are faced with.

The point that should also be stressed is that when French was not rated at the top difficulties, it was placed in second (44.23%) or third (28.84%) position. None of the respondents rated it in the last position (data are not tabulated). Also, no significant statistical differences were noticed across different genders and affiliations. In other words, the majority of male and female respondents, enrolled in the three departments (Biology, Geology, and Forest sciences), ranked French as the main difficulty they encounter while learning content subjects<sup>44</sup>. This is a strong indication that French as medium of instruction (hereafter MI) is an issue of high concern to the vast majority of, if not all, students participating in this study.

Of utmost interest to our analysis is that content subjects are not perceived difficult; such item was only rated fourth in position in a six-item scale. Interviewing the students unveiled crucial findings on which the questionnaire results might be clarified. According to the interviewees, much of the content being studied in the first year (at least during 1<sup>st</sup> semester), especially mathematics, physics, chemistry, and cell biology, has been dealt with in-depth in the secondary school; only little new information is introduced to learners. Consequently, the interviewees confirmed that subjects are not extremely hard; if they are so, this only is due to the language through which they are delivered.

---

<sup>44</sup> Data analysis and discussion will ignore the two variables (affiliation and gender) as no significant statistical differences could be met.

To verify the extent to which the use of French as medium of instruction may hinder content learning, it was necessary to examine teachers' beliefs about this issue. The results are illustrated in table 4.3, sketched below:

Table 4.3 Teachers' perception of French as MI

<b>French is:</b> <b>For:</b>	major problem	moderate problem	no problem
1 <sup>st</sup> year students	13.63%	4.54%	/
1 <sup>st</sup> and 2 <sup>nd</sup> year students	18.18%	/	/
All undergraduate students	63.63 %	/	/

Of the 22 teachers, 21 perceived French as a 'major problem' and only 1 teacher believed that it is a moderate problem; none of them negated that French constitutes an obstacle. Of those who believed that French is a major problem, 14 (63.63%) teachers argued that it is so for all undergraduate students (1<sup>st</sup> to 3<sup>rd</sup> year). Those who restricted it to first year students are no more than 3 teachers (13.63%). In sum, 17 teachers, out of 22, argued that the linguistic abilities of the students are not adequate for them to study non-language subjects in French, as shown in the following table:

Table 4.4 Teachers' conceptualization of students learning performance

<b>Item</b>	<b>Yes</b>	<b>No</b>	<b>Not sure</b>
2. The proficiency in French of the students that I teach is not adequate for them to study non-language subjects (e.g., biology, Mathematics, chemistry) in French	17	5	/

The interviews with teachers reinforced the above-presented questionnaire results. The six interviewees asserted that French is a heavy burden that negatively affects the efficient learning of content. Teachers made such assertion on the basis of the students' actual poor command of French. This implies that they did not put the blame directly on French but on the students. The most glaring remark was that *all* the interviewees confidently asserted that French is not a problem that only concerns undergraduate students; it in fact covers all levels including Master and Doctorate students though the effects are noticeably less pronounced at these advanced levels. Some teachers (the francisants) went further beyond and revealed that even some young teachers (in an indirect indication to the arabisants) do not possess high skills in French though this does not mean that they do not deliver content successfully (this is probably an implicit linguistic comparison between the two linguistically-different categories of teachers).

The results extracted from different sample populations (students and teachers) and through different research instruments exposed a high degree of conformity revealing no significant mismatch; this increases the validity of the findings. What could be implied is that if students, and teachers alike, acknowledged that French does constitute *the* major problem for the vast majority of learners, an educated guess might allow one to expect the extent to which the use of French as MI might impede the efficient learning of content subjects even before analyzing the data of the next part.

#### **4.2.1.3 The Impacts of French as MI on Quality Learning**

This subsection of part one deals with how students perceive French as MI. To put it another way, it is about the possible impact of the abrupt switch in the medium of instruction and whether such switch impedes the quality of learning or it only introduces possible minor effects. The results obtained through the three research instruments, namely classroom observation, interviews and questionnaires, will be discussed with reference to four areas: content understanding, participation in the classroom, reading comprehension, and performance in examinations.

#### 4.2.1.3.1 Content Understanding: How much is really learned?

The results of the three research instruments exposed a great deal of conformity. Of the 8 interviewed students, 6 confirmed that teaching/learning through French encumbers the degree of understanding and hampers concentration on the lectures. The remaining two other interviewees (ST7 and ST 8), who had already proclaimed to have good command of French, revealed that they only faced problems during the first month. The questionnaire results did not bring conflicting results. Table 4.5, sketched below, demonstrates that a sizeable number of respondents did not hesitate to avow that understanding what the teachers say during classes remains beyond the reach.

Table 4.5 the extent of content understanding

	definitely false	partly false	partly true	definitely true
<b>I understand most of what the teacher says during classes</b>	53%	9%	21%	17%

The questionnaire and interview results may enlighten the findings obtained through classroom observation. While observing, it was not hard to notice the demotivating learning atmosphere which is understandably attributed, at least partly, to the use of French as a language of instruction. A number of students did not pay attention to the teacher: some were whispering to their peers, others were playing with their mobile phones, and still others simply sat at the back of the lecture hall displaying no active turn in the learning process. Even those who seemed following the teacher did not provide systematic evidence that they understand most of what was being said. Classroom observation also revealed that a few students were taking notes during the seminars. It goes without saying that note-taking is part of the learning process, especially when the lecturer relies mostly or exclusively on oral delivery instead of handouts distribution.



Interviewing students permitted to come up with interesting facts. Of the 8 interviewees, 6 students reported that attending lectures is first and foremost only to mark the presence and to avoid repeated absences which lead to automatic exclusion from the modular session in question (the case of compulsory, practice sessions). Their justification was that being present or absent does not make much difference since comprehension during classes is almost missed. If they wish to digest the topics effectively, they need to read the content several times, very frequently to translate it. This is probably the main reason for which the number of students attending seminars (optional classes) was very low, displaying noteworthy decrease from around 83 students in October (2014) to around 50 in March (2015). Of course, it is needless to mention how much important attendance is.

The most astonishing result came on the part of the teachers in that the interviewees did not hesitate to divulge that they doubt how much of the content is digested before classtime is up. About this, a teacher reported (TT 6) that she expects no more than 30% to be efficiently learned. Though they attributed this to incompetence in French, they also mentioned other reasons such as disinterest in learning, skipping classes, the low amount of extra readings, etc.

Some excerpts from the students' interviews might illustrate how learning is perceived when linguistic inabilities are not seriously regarded. One student (St 3) had this to say: *“Teachers believe that we understand them perfectly. Today's lecture was about something called ‘mitosis’. I only felt shy to leave the class at the beginning because I honestly lost interest since I could not figure out what the title meant. I need to read about it alone”*.

Another situation was encountered during an observation session in the laboratory during the practice session of cell biology at the beginning of the year (October 2014). The teacher addressed her students this way: *“Mettez la substance dans le flacon, ajoutez la solution, diluez bien et puis prenez un échantillon en utilisant la pipe. Puis, mettez l'échantillon sur lamelle...”* (Put the substance in the vial, add the solution, dilute well and then use the pipe to take a sample. Then, put the sample on the slide...). For the teacher, such lab-language has become an

integral part of her mental lexicon; her use of this language was spontaneous expecting, perhaps unintentionally, that students would understand her. Student in the group were in fact puzzled and, virtually, all of them did not know the meaning of at least one of such specific items: flacon, déluez, la pipe, lamelle. The teacher was obliged to name the lab instruments and make the instructions clear through a personal trial. One of the students (ST 1) whispered this way: “*I know one meaning of the word ‘solution’: solution for a problem. I did not know that a liquid is also called solution*”.

When required to rank four content subjects that they understand better during classes, physics and mathematics came at the forefront, whereas cell biology and geology were ranked last by a clear majority of the interviewees. This is quite peculiar if the nature of such subjects is considered. All interviewees confessed that the first two subjects call for higher cognitive load compared to cell biology and geology. No other than linguistic explanations could be provided. According to the interviewees, the fact that physics<sup>45</sup> and mathematics (even chemistry) are delivered through an *algorithmic* language the core of which are *numbers* makes it easier to concentrate on the *content* rather than *the language of the content*<sup>46</sup>. On the contrary, though interviewees reported that much of cell biology and geology content (geology to a lesser extent) has been seen earlier in the secondary school (some topics with more details), they remain more challenging to understand *during* classes compared to physics and mathematics. The reason is that this content is delivered through a *French scientific register* (non-technically called jargon) which makes students perceive the content as if it was totally new; this is not true as its equivalent Arabic register forms an essential part of the students’ mental dictionary constructed during their pre-university education.

---

<sup>45</sup> Physics is the exception among all first year content subjects in that it is the only subject which is delivered in Arabic. French is only used as an additional linguistic support with the aim to provide equivalent French technical terms.

<sup>46</sup> Building on the interview results, one may draw a conclusion that the linguistic problem is probably less pronounced in the departments of Mathematics, Physics and Chemistry. This was not probed, however.

#### 4.2.1.3.2 Extra reading: How much is comprehended?

In higher education, classroom learning is enough in no way to develop high academic levels. Teachers, being sources of knowledge, are restricted in various ways (e.g. the class time, the curriculum content, etc) to offer much information about a topic. Subsequently, extra readings become strongly recommended for in-depth information related to topics provided in the classroom. Science learning is then perceived as a continuum, the edges of which are teachers and print materials. Glynn and Muth (1994:1060) observe that “by reading well-written scientific text and by endeavoring to write it, students familiarize themselves with the conceptual relations that form the basis of real scientific expertise and understanding”.

Out of interviews, a general agreement among the students could be met: comprehending the reading material is no easy task. Interviewees made it clear that reading cannot be achieved without a heavy dependence on a bilingual dictionary (French-Arabic dictionary). For those to whom modern technology is available, most of the extra reading is done via web articles where a supplementary window for online translation (such as Google translation) is always kept open to help translate unfamiliar words into Arabic. In fact, translation is the basic strategy employed by all the interviewees to the extent that sometimes a whole French-composed handout is translated into Arabic. One of the interviewees (ST 4) humorously reported this way: “*When I read I sometimes forget the title of the topic I read about because I reserve a lot of time to translation, and I find myself learning the French language through Arabic instead of learning the content written in French*”. The same results were achieved through the questionnaire. As graphically represented in figure 4.2, students who proclaimed to understand what they read were no other than a marginal minority.

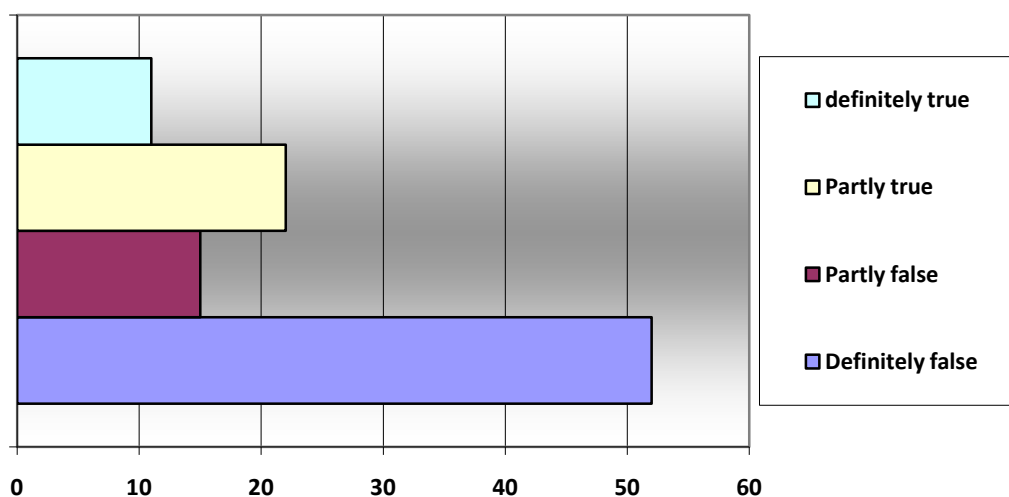


Fig. 4.2 Students' degree of reading comprehension of scientific material in French

Reading the scientific material is often challenging even when it is done through L1 due to the inclusion of alien lexis and subject-matter concepts, many of which have never been seen before. Therefore, one would be hard pressed to deny that reading via a foreign/second language is not more complicated. Even simple words that the reader might know could have another meaning in science<sup>47</sup>. Most of the interviewees raised the point that though they have access to rich reading resources (print and online)- this explains why the item 'lack of learning resources' was ranked as the least challenging learning difficulty (see figure 4.1)-, they are mired by the language barrier which is still, more often than not, insurmountable. They have to cope concurrently with French literary vocabulary as well as the abundance of scientific terminology. Short and Spanos (1989) point out that students need sufficient language proficiency and understanding of vocabulary and texts in order to perform academic tasks in a non-native language.

<sup>47</sup> If we consider the earlier-mentioned excerpt (ST 1, section 4.2.1.3.1), the student has only one association for the word 'solution' which is of course the general literary meaning (e.g. solution for a problem). The context- a laboratory- makes it easy, for a linguistically proficient user, to associate the term 'solution' with a liquid.

Though books, magazines, journals and web articles afford a rich learning supply, they become almost of little value when they are composed in a language which is not well controlled by the reader. The explanation to the above presented results is that such reading materials are not specifically designed for students whose first language is not French, or at least who are not *balanced* bilinguals. Many of the books available in the faculty's library, especially high quality materials, are produced or translated in France or Canada. Also, textbooks written by local teachers do not consider the linguistic proficiency in French of the *current* Algerian students. This concerns most textbooks but in particular those materials written by aged teachers (*francisants*) who show a native-like competence in French. Having good command over French makes such writers tend to focus not only on the content but also on the beauty of the language. Although the scientific register tends to bypass the rhetoric nature of language, science books may contain, deliberately or unintentionally, figurative language which is not likely to help readers with limited language proficiency since it surfaces unfamiliarity with the connotative and denotative meanings of words. When no consideration of the foreign reader is taken into account, accuracy of reading materials renders severe obscurity to learners who are confronted with non-simplified content, which turns reading authentic materials an extremely de-motivating task (Harmer, 2001). Consequently, students perceive reading a strenuous assignment and this is explained in two ways: (i) the degree of comprehension they reach, and (ii) the time reserved for reading.

If reading is felt arduous, students' curiosity and motivation to read is more likely to decrease. This does not serve the learner who is required to know as much as possible about the field he is specialized in. Glynn and Muth (1994) demonstrated that students with more enthusiasm to read knew more about how a carburetor worked, how many teaspoons are equivalent to one tablespoon, what a stroke was, etc. Also, from a language learning standpoint, reading has a tight relationship with the development of other skills. In their notion about the rapport between receptive and productive skills in L2, Kavaliauskienė and Kaminskiene

(2009:172) write that “language teachers are well aware of the qualitative dependence: well-read learners are better speakers and writers”. Krashen & Terrel (1983:131) also add that “reading may contribute significantly to competence in a second language. There is good reason, in fact, to hypothesize that reading makes a contribution to overall competence, to all four skills”.

#### **4.2.1.3.3 Participation: does the MI limit students’ role in the classroom?**

Teaching (sciences) is hardly ever undertaken in isolation as it needs discussion, sharing of ideas, and interaction between the actors in the classroom. Classroom observation could reveal interesting indications on the strong impact of the language of instruction on students-teacher interaction. As mentioned earlier in chapter three, the aims beyond classroom observation is to examine (i) how much students interact verbally with the lecturer during classes, (ii) the characteristics of the language they use during interaction (e.g. grammar features), (iii) and whether they display features of bilingual discourse or not (especially code switching). Recall that classroom observation concerned only one content subject (cell biology) during a period of about five months. Therefore, the results presented in table 4.6, sketched below, only form a general account; Appendix D provides results for each observation session.

Table 4.6 Classroom observation results

Item	Not at all <-----> to a great extent				
	1	2	3	4	5
1. Asking questions (more clarification, extra examples, etc)		X			
2. Contributions which display connections students see between content in the course and other experience and knowledge they have had		X			
3. Presenting alternative views to those raised by the lecturer	X				
4. Comments that encourage other students to speak	X				
5. Comments that clarify or summarize ongoing class discussion	X				
6. Responding to questions addressed by the lecturer during classes			X		
7. Students' answers/questions are well-formulated			X		
8. Students' answers/questions are agrammatical/ not clear			X		
9. Students code-mix/code-switch (French to Arabic) when interacting verbally with the teacher				X	
10. Students answers/questions are constituted of long strings	X				
11. Students are passive recipients of information from the teacher					X

Table 4.6 may give an image about the learning atmosphere. During the months spent in observation, students proved to be spectator-like recipients of information. On the part of the lecturer, it was intricate to get them participate actively. When the lecturer used to throw out some questions to trigger the students or assess their understanding, few students (generally the same) attempted to answer the questions but their answers were brief; sometimes providing no full sentences. At other times, they just stared at the lecturer blankly.

Also, when breaks were offered, the students rarely forwarded questions to the lecturer. Not getting involved in discussions is not a sign of well understanding but almost certainly a consequence of the difficulty to express one's self in French<sup>48</sup>. This assertion is made on the basis of the questionnaire results for item 6, exposed in figure 4.3, mentioned below.

Item 6: *Teaching science in French decreases the degree of students' verbal participation and discussion in the classroom*

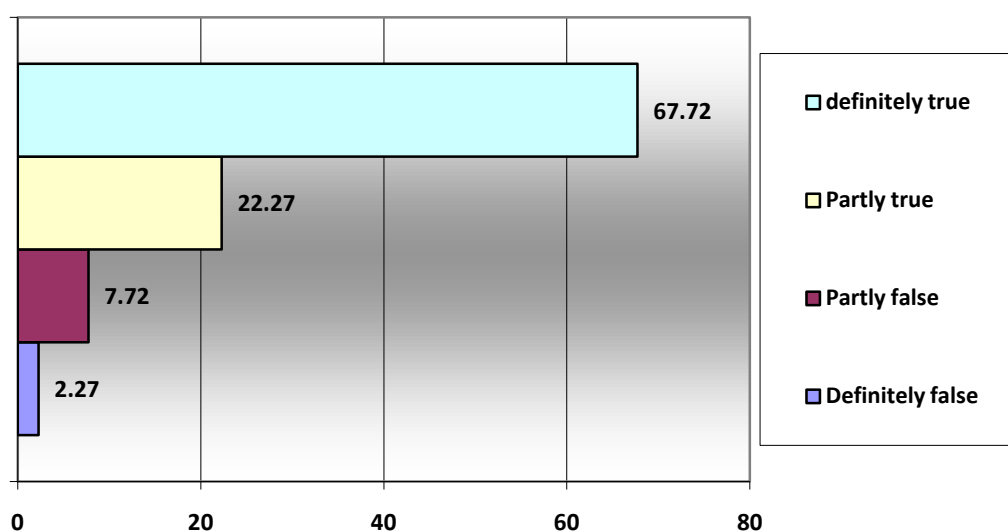


Fig. 4.3 Students' verbal participation during classes

The use of French as MI resulted in no other than a teacher-centred classroom which, as Echevarria *et al.* (2004:103) argue, “can be particularly tempting for teachers to do most of the talking when students are not completely proficient in their use of [the foreign language]”. While interviewing teachers, the majority of them confirmed that their students do not ask questions even when they look baffled. Given this avoidance of question-asking, the students miss effective assistance from the teacher who can make the content easy to digest. Also, without

<sup>48</sup> It should be made clear that the degree of participation cannot always faithfully portray the linguistic abilities of the learner in that linguistically (and scientifically) competent students may be silent especially in cases where no compulsion to speak is felt. How much one talks depends on a variety of factors and the linguistic dimension is not necessarily the most important one.



students' questions, the teacher might be less able to circle students' specific troubles in order to adjust his lecture in a timely manner.

Classroom observation also demonstrated that many students try to use French when asking, or answering, questions but they quickly switch to Arabic when they face difficulties in retrieving linguistic items (lexical gaps)<sup>49</sup>; this linguistic behaviour was not always welcomed by the lecturer. Also, if a sudden question was directed to a particular student and (s)he felt forced to answer, a frequently attested situation before the verbal reaction was a state in which the student thought for a while, as if (s)he kept mentally translating into and from Arabic.

The interviews with the six teachers (who teach not only first year students but also other levels) confirmed that the students are for the most part passive bystanders. In a way, this gives hints that the classroom observation results can be generalizable to cover other content subjects beyond the one under observation. Searching for reasons behind such state of affairs could be achieved via interviewing students. The widely mentioned reasons related to the lack of the necessary linguistic skills in French (namely vocabulary) but also fear of making mistakes, and therefore fear of being negatively judged by the instructor and/or their peers. Here are some excerpts taken from the interviewees:

ST 2: *“Not answering teachers’ questions does not automatically translate that we do not know. Many times we know the answer but it is not always easy to find the necessary words”.*

ST 4: *“It is better to be silent. At least I avoid being misunderstood”.*

ST 5: *“I feel safer when I do not speak. I neither make mistakes nor be made fun of”*

ST 1 gave a different excuse: *“Some teachers do not show the least degree of tolerance with mistakes. They do not allow the students to say a single word in*

---

<sup>49</sup> Lexical gaps are of two types: complete and momentary. The former refers to the total absence of the linguistic item in the mental lexicon of the language user. The latter implies that the absence is temporary.

*Arabic. They expect us to articulate French the way they do. I believe that focus should be on the meaning of what we say and not on the way we say it”.*

On the ground of the interviews results, the simple, yet logical, explanation for the low participation frequency can be attributed, at least partly, to the students’ low linguistic proficiency in French which, in turn, generates emotional and psychological issues. Oral performance remains the most demanding skill (see table 4.1); this is reasonable as speaking requires fluency, high degree of self-confidence, and immediate reaction to respond but above all, and unlike writing which is also another demanding productive task, it involves face to face interaction which is not easy for every student to handle as it may breed high amounts of anxiety. Lack of competence in French makes students experience a state of communication apprehension, i.e. "individual level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1977: 78). Quietness, wariness, shyness, and reticence are indicators of communication apprehension. For Friedman (1980), such indicators crop up when the aptitude and willingness to participate in a discussion are present, but the process of verbalizing is repressed. In our case, quietness and bashfulness are not general traits of the students’ personalities (though some people are naturally quiet and/or shy); they become so only when it comes to interact verbally inside the classroom. This is made stronger on the basis that some teachers affirmed that students have a tendency to approach them outside the classroom after classtime is up to request about points that they did not grasp though they generally reserve time for classroom discussion (students questions are a mixture of dialectal Arabic and French). This goes in accordance with the claim of Horwitz *et al.* (1986) who assert that anxiety is found to have a profound upshot on learners' confidence, self-esteem and level of participation.

#### 4.2.1.3.4 Examination: How May French impact performance in examinations?

Findings in a number of investigations illustrate that the substandard attainment in examinations is because teaching and learning are conducted in a foreign language. In his study, Alidou (2009) concludes that students' low achievement is not because they have inherent cognitive problems but it is due to the fact that most of them do not fully master the language of instruction. Language may not be the only justification that accounts for low performance, he adds, but it surely is a factor that significantly contributes. As far as our research is concerned, it would not be irrational to expect negative repercussions of language on students' performance in exams especially that they were found to suffer from deep incompetence in French. The interviews unveiled how French may seriously affect performance in exams. Four main issues were cited; all of them are directly or indirectly attributed to the MI, i.e., French, as discussed below:

1. The preparation for the exam:

Issues related to the preparation for the exam basically relate to the difficulty facing the students while revising. A general agreement among the interviewees was that content subjects like cell biology and geology are hard to revise compared to, for example, mathematics and chemistry. Revising these latter subjects is restricted to theories and laws, and examination in such subjects usually involves problem-solving which requires the application of theories/laws in an *arithmetic language*. To say it another way, students need numbers and not words. This is entirely different from revising biology or geology whose content is drastically voluminous. Several topics are covered during the semester, and for each topic there exists at least one sizeable handout to cope with. Reading, comprehending and *memorizing* the content become no easy tasks. The point that should be stressed is that subjects which are challenging to revise are perceived as easier compared to subjects like mathematics and chemistry; the problem chiefly lies in the energy and time allocated to such subjects.

## 2. What strategy is most often used?

Difficulties in revising some content subjects lead students to employ some learning strategies. *Rote learning* comes in the forefront of these strategies. Of the 8 interviewees, 7 students confessed to rely heavily on rote learning. The astonishing point was that some learners (4 interviewees) do not even bother to understand what they cram. These findings go in compliance with Puja's (2003) description of the situation that exists in university when students are required to write tests, take-home assignments and prepare for examinations. Puja elucidates that students memorize this material and replicate exactly what they have learned by heart.

The point with rote learning is that students cannot store much in long term memory since what is learned by rote may easily go. Also students do not study with the avowed aim of developing their cognitive and scientific standards but merely to pass the exams. Then, an exam question containing slight modifications (passive instead of active form, word synonyms, etc) on what has been already dictated during the class or given in the form of handouts, and then stored through memorization, is expected to confuse students with weak command of French- a technique many teachers make use of. In their study of British school pupils and pupils for whom English was a second language, Bird and Welford also (1995) demonstrate that modified forms of the questions in science examinations manifestly influenced the performance of the second group of pupils and put them at disadvantage.

## 3. The linguistic form of exam questions

The issue with the form of exam questions relates to the possible incomprehensibility of the included items. When reviewing the language of engineering examination papers and the problems non-native speakers of English are faced with, Harrison & Morgan (2012) argue that besides the subject-specific lexis, non-technical items such as instructional verbs have been sources of convolution, and there are clues that other ordinary words cause problems, including implicit instructions and vague or ambiguous words. In our data, one of

the interviewees reported the issue this way: “*In the exam of mathematics, I did not understand what the verb ‘schématiser’ meant. I could not answer appropriately because the teacher who was watching us did not allow me to ask about the meaning*”.

If students are less able to see meaning in questions, the exam becomes exhausting and time consuming. If they do not perform well, this is not always because they cannot answer questions, but they may only not comprehend them. Barton and Barton (2005) show that learners for whom English was a second language experienced a disadvantage of between 10-15% in mathematics as a result of language difficulties. The situation is goaded if students are not allowed to ask about the meaning of the unknown words. While some teachers are ready to give *linguistic* support when ambiguity arises, some others may refuse talking during the exam period. Because assessment is not about language but about content, the examiners have to take account of their students’ linguistic abilities and attempt to make *the form* of the questions as understandable and unambiguous as possible.

#### 4. Answering Exam Questions:

The other major issue experienced in exams is when it comes to express oneself through writing, especially answering open-ended questions. Figure 4.4 demonstrates how intricate writing is; students face a great difficulty to come up with appropriate vocabulary. Interviewed teachers admitted that agrammatical sentences are not seldom attested. They added that in case of being unable to find the French item, some students may not hesitate to insert Arabic words though this rarely happens. Such findings reflect how intricate it is for the students to express knowledge in their own words. This is a reason why the interviewed students expressed clear preference for MCQ questions for which the examinee only chooses among the available answers; direct and open-ended questions do not furnish such advantage.

Item 7: *Writing in French, for example answering exam questions, makes it hard to express yourself:*

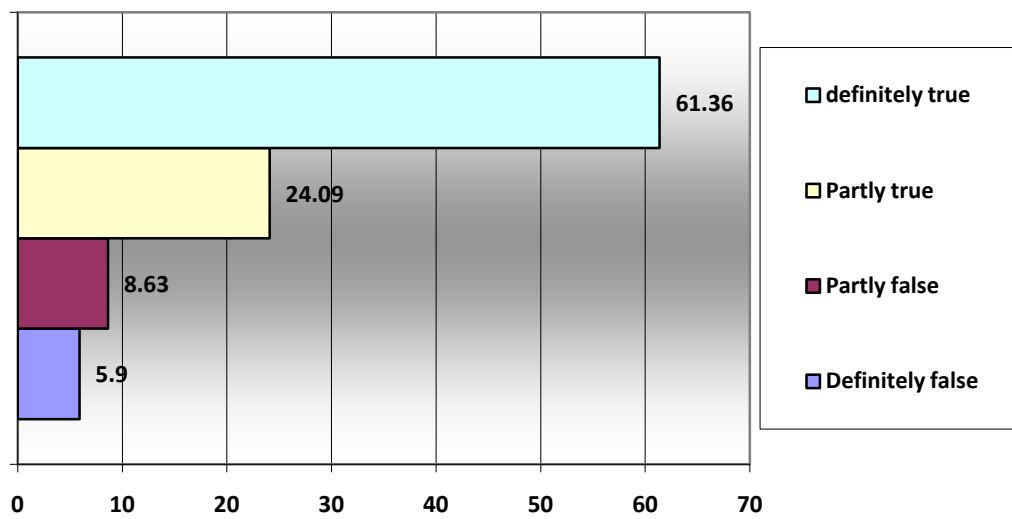


Fig. 4.4 The degree of difficulty to compose in French

In fact, the first semester exams revealed alarming results, as shown in the following table:

Table 4.7 First semester exam results for the academic year 2014-2015  
(Source: administration of the Faculty).

Department	Regularly registered Students	definitive abandonment	Academic Leave	Proper Number	Admitted
<b>Biology</b>	1092	385	46	<u>661</u>	<u>355</u>
<b>Geology</b>	252	113	10	<u>129</u>	<u>17</u>

It is obviously indicated that the success rate among first year students is very weak<sup>50</sup>. Biology students who successfully finished their semester form approximately 53.70% of the total number. In geology, they only score 13.17%. Such startling truth reflects a pedagogical failure. On the basis of the research results, one can confidently argue that the medium of instruction is certainly, though not solely, a/the strong reason behind such failure.

In sum, the use of French introduces a learning atmosphere in which learners have little to no share, with a teacher doing most of the talk. Comprehension during class sessions remains hard to achieve. Further readings which are essential learning supports are time consuming and effort demanding as the reader grapple with the language of, more than the content, the books. Translation and rote learning are the *de facto* strategies most widely used by the learners. If knowledge acquisition is deeply affected, it is no wonder that performance in exams is also negatively influenced. Such findings confirm the first hypothesis which states that the sudden switch in the MI from Arabic to French constitutes a heavy burden to students. Learners who are not negatively affected, if they actually exist, form the exception rather than the general condition.

The data signal that teachers are aware of the learners' limited linguistic abilities and hence the difficulties engendered by the use of French as medium of instruction. How much they consider learners' linguistic weaknesses while lecturing depends on the teacher. Some of them have a tendency to use Arabic when learners go blank to the extent that they may teach the whole first semester (1<sup>st</sup> year) in Arabic; others depend solely on French to deliver the different content subjects and they may not show the least degree of tolerance with the use of Arabic neither on their part nor on the part of the learners (e.g. code switching).

---

<sup>50</sup> Academic leave means that the student has stopped studies for a whole semester or year for a reason (e.g. illness). Definitive abandonment implies that the student has stopped studies definitely or switched to another discipline.

As a linguistic support procedure, each department within the faculty under investigation introduced French as a compulsory subject of study. However, interviews with students surfaced the following conclusions:

- Students are not highly motivated to attend classes; most of them skip classes;
- teaching French at the faculty is not much different from it at secondary school; it addresses more linguistic aspects of the language;
- two sessions a week are offered; come up
- French is not an annual subject; it is replaced by English in the second semester.

#### **4.2.2 Data Interpretation**

The Results demonstrate that efficient learning remains the wish as it actually is beyond reach. French as MI constitutes a serious barrier for the vast majority of students though they have known it as a compulsory subject of study for a significantly long time, i.e., since their primary school. Such findings can be explained in the light of language learning theories. Cummins (1981a; 1989), a leading authority on bilingual education and second language acquisition, accentuates two levels of language proficiency: *Basic Interpersonal Communication Skills* (BICS) and *Cognitive Academic Language Proficiency* (CALP), with the former referring to second language skills needed for everyday communication activities and the latter required, as the name implies, for learning and performing academic tasks effectively. Cummins's (1984) stresses the point that bilinguals function in two or more languages with relative ease. While he argues that cognitive functioning and school attainment may be supplied via one code or, equally, via two or more well developed codes, Cummins makes it clear that if learners are made to operate in a scantily developed second language, the system will not function well in that "the quality and quantity of what they learn from complex curriculum materials and produce in oral and written form may be relatively weak and impoverished" as summarized by Baker (2001:166) on the basis of Cummins' proficiency model of bilingualism.



This is the case with the population in the site under investigation. The point with the above-presented data is that the students' BICS only are *relatively* developed. The questionnaire results (in total conformity with interviews and classroom observation findings) point out that a clear majority of students confessed to have low command of French, especially in terms of their productive skills. This translates that such students cannot competently use French to interact socially with people. Teachers, in parallel, revealed that students' linguistic proficiency is very poor, and 77.27% (cf. table 4.4) see that students' bilingual competence does not allow them to study non-language subjects effectively.

The first conclusion that can be drawn from such findings is that teaching French as a foreign language (FLE) remains frail to produce competent bilinguals. The fact that French is taught since the third grade in primary school and that learners have known French for at least ten years before joining the university, allow one to argue with poise that such learners must have developed significant bilingual competence on their leave of the secondary school. Since this actually is not the case, the issue is attributed to, at least partially, the foreign language teaching policy which can only be described as inefficient, inept and weak. The blame might be put on the macro agency where policy is made (i.e. ministry of education) as it might concern the micro level where implementation takes place (the school and the classroom teacher). The product of such a LiEP is no other than unbalanced, coordinate bilinguals. A bilingual of this sort, contrasted to a compound bilingual, has different associations for words and phrases in the two languages (e.g. Macnamara, 1967). Here, it is L1 (Arabic) which is overriding and may be employed to think through L2 (French).

If the students' BICS in French are not adequately developed, the CALP is automatically immature as it builds on the BICS besides higher levels of cognitive processes (Chamot, 1981; Cummins, 1982). This translates that first year science students do not possess the language proficiency required for effective learning. Hence, it becomes in no way surprising to reach the above mentioned results which indicate a difficulty to comprehend content subjects, an intricacy to assimilate

reading materials, an inability to participate actively during classes, in addition to low performance in examinations.

It should be noted, add language learning theorists like Cummins (1981a) and Krashen *et al.* (1979), that having developed significant proficiency in the foreign language (grammar, vocabulary, etc) does not analytically imply possessing the necessary cognitive scholastic language (i.e. CALP) to cope with the subjects in science courses. Scientific discourse, be it oral or written, is full of alien vocabulary which is hard even for the native to master without being scientifically literate. The AAAS (American Association for the Advancement of Science) report of 1989, *Science for all Americans*, describes the scientifically literate person as one who “[...] understands key concepts and principles of science [...] and uses scientific knowledge and scientific ways of thinking for individual and social purposes” (p.4).

In our research site, the foundation of discourse in, for example, cytology (as a subject of study in first year Biology) is largely based on words like, mitose, méiose, réticulum endoplasmique, lysosome, Mitochondries, to name but a few (mitosis, meiosis, endoplasmic reticulum, lysosome, mitochondria, respectively). Not *all* French-speaking (including native) people are familiar with such items; these constitute a scientific register related to the cell area known only by the scientifically literate individuals. Language educators (e.g. Spanos *et al.*, 1988) report strong evidence that the nature of content language such as mathematics and science has already generated obstacles of high significance to all students. Added to its obscure natural distinctiveness, the scientific language, or simply scientific register, becomes harder when these content areas are taught through the medium of a foreign language. Learners need sufficient language skills and understanding of vocabulary and texts in order to perform the demanding academic tasks in a non-native language (Short & Spanos, 1989).

The findings provide strong support to claims in Spanos *et al.* (1988). This should not be mystified with failure to think scientifically, however. Many learners have an excellent science background, but they may fall short in transferring their learning only due to the foreign language barrier. Students taking share in this study are all scientifically literate used to sciences in pre-university education; the difficulty they face at the university level is mainly attributed to the medium of instruction.

The findings of the present study also go in compliance with works of, for example, Chamot and O'Malley (1986) and Rosenthal (1996) who sustain previous findings of Cummins (1980). They all indicate that students who have not increased their CALP could be at nuisance in schoolwork especially in studying science as this subject demands a profound understanding of concepts obtained by reading textbooks, participating in dialogue and debate, and responding to questions in tests. In their paper, Johnstone and Selepeng (2001:19) demonstrate that learners "struggling to learn science in a second language, lose at least 20% of their capacity to reason and understand in the process". Loosing such percentage in learning is, of course, alarming. The situation must be worse when the learners cannot bypass the language barrier quickly. Therefore, the question which strongly poses itself revolves around whether students can overcome the foreign language barrier or not.

In a learning environment, such a question needs to be approached at least in two ways: (i) required time and (ii) efficiency. It should be made clear from the onset that the present study considered in essence first year science students. No consideration has been given to students at other levels. Therefore, the aforementioned question was not probed in detail. However, the data collected from teachers can offer clues which may provide answers to the issue.

The fact that content is exclusively taught and learned in French implies that students are submerged in a linguistic bath. Methodically, it would be outlandish to suppose that they will not develop *certain* level of bilingual proficiency. Of course, they do. As an example, most first year students will be able to name the different lab equipments by the end of the year for the simple reason that they have been used to such equipments every week during a whole academic year. Is this enough? Certainly not. Table 4.3, mentioned earlier, indicates that 3 of the 22 teachers viewed French as a real problem for none other than first year students; four teachers included even second year students, but the vast majority of teachers (14) proclaimed that French is a real hurdle to all undergraduate students. Out of interviews, there was a general agreement among teachers that the linguistic abilities in French of most students, whether at beginning levels or at advanced levels, remain only relatively developed. Some interviewees justified this assertion claiming that it is a definite challenge for the majority of master students to compose a dissertation in French. This is a clear indication that even after five years of enrollment in the scientific field (i.e. after five years of exclusive use of French), students still have difficulties with the French language. Interviewed teachers made it clear that the problem of understanding diminishes through the years; the problem concerns more learners' productive skills, however.

On the basis of such data, it is logical to suppose that developing significant competence in French requires considerable time, not weeks but years. This cannot be generalized as the ability to learn a second language differs from one student to another. According to Cummins (1984, 1991), (children) language learners need 2-3 years of immersion in the target language to develop native speaker fluency (i.e. BICS) but 5-7 years for a child to be working on a level with native speakers as far as academic language (i.e. CALP) is concerned. If this is the case, one can assertively argue that the students participating in this study can only develop the necessary scholastic French language by the end of master's level (5 years of learning). This can, of course, only hold if we exclude at least four variables. Firstly, age is an important factor in language learning (Cummins theory basically concerns children; the population under study are adult learners). Secondly, French

is not the target itself but rather the language of the target (i.e. content). Thirdly, the students in the site where the study took place are not submerged in an immersion language programme though they are exposed to French on a daily basis. Last but not least, not every student has the capacity to learn another language. This makes us conclude that the students in the present site of research automatically miss the effective learning of content subjects especially during their first years at the university.

### **4.3 Part Two: Students' Attitudes towards the Arabization of Sciences**

Part two was conducted with the avowed aim to offer an adequate answer to the second research question which aims to measure students' attitudes towards the implementation of Arabization in sciences. The results<sup>51</sup> achieved through two research instruments (questionnaire and the interview) are separately presented then jointly discussed.

#### **4.3.1 The Questionnaire Results**

The second section of the students' questionnaire is divided into three subsections: perceptions of Arabic as MI compared to French, attitudes towards the implementation of Arabization, and attitudes towards French. The results of each subsection are sketched below.

- **Perceptions of Arabic as medium of instruction compared to French**

Eight items make up the construct of this subsection. The aim here was to compare between the use of Arabic<sup>52</sup> and French in instruction. Results for the first two items (8 and 9) are presented in table 4.8. Results for the other six items (four

---

<sup>51</sup> The questionnaire results are provided in absolute frequencies (number of respondents) instead of relative frequencies (percentage).

<sup>52</sup> The label 'Arabic' is used throughout this chapter with the meaning of the standard language (SA).

are positively-worded and two others are negatively-worded) are presented in table 4.9.

Table 4.8 Comparing the time and effort to perform academic tasks

Item	Frequency			Missing
	less	same	more	
8. The time and effort required to read and assimilate the Arabic scientific material (books, magazines, etc) when compared to that composed in French are	198	11	/	11
9. The time and effort required to write in Arabic when compared to writing in French are	195	9	/	16

Table 4.9 Expected Outcomes of Using Arabic as MI

10. Using Arabic, compared to French, is supposed to:	Number		Frequency		
	Valid	Missing	yes	no	No difference
a. make students' acquisition of information and assimilation of the content quicker, easier and deeper.	220	0	208	3	9
b. increase the degree of students' participation and discussion during classes	218	2	208	3	7
c. create harmony between students' thinking and speaking	215	5	205	3	7
d. bolster students' interest in learning	220	0	208	3	9
e. hinder scientific development and negatively affect students' scientific level	217	3	3	193	21
f. isolate the learners/researchers in that it does not allow them to read and know about the scientific discoveries and advancements reached worldwide	219	1	189	30	/

The results exposed in both tables (4.8 and 4.9, respectively) are largely in favour of Arabic. Table 4.8 obviously indicates that performing academic tasks, namely reading and writing, is less demanding via Arabic. Understandably, such tasks are achieved with less efficiency through French; this inference is made on the basis of earlier results presented in part one (questionnaire items 5 and 7). As far as table 4.9 is concerned, the responses to the different items evoked that Arabic, as medium of instruction, is unquestionably appreciated. Items 'a' to 'd' scored high frequencies with 'yes' answers. This interprets that the vast majority of respondents approved the proposed advantages that Arabic might avail to them in case it would be used as the language of teaching. Also, a clear majority of respondents gave negative answers to item 'e'. The reverse was attested with item 'f', with which most respondents agree. Analysis of the questionnaires permitted to recognize that the same students who did not approve the use of Arabic gave consistent answers; they form a minor population of 3 students out of 220. The other remarkable feature is that a number of students (between 7 and 9) did not see any difference between the use of Arabic or French. These students are those who proclaimed to have strong control over French. In sum, the results for this subsection echo no mismatch with the results of part one which demonstrated that learning in general is seriously and negatively affected by the use of French in instruction.

- **Attitudes towards the implementation of Arabization**

This subsection of the questionnaire is made up of nine items; they are all positively-worded. Students were required to choose what best reflects their *beliefs* on a five-point Likert scale which ranges from strongly disagree to strongly agree (SD: strongly disagree, D: disagree, U: undecided, A: agree, SA: strongly agree). The results are displayed in table 4.10, mentioned below.

Table 4.10 exposes particularly positive attitudes towards the Arabization of sciences. The number of respondents who expressed disagreement with the different items (11 to 19) is very limited; these respondents only constitute a marginal population that does not exceed 1/10 of the sample population (11.81 % at best). Items 11 to 13 scored the highest approval frequencies. Only a few respondents (no

more than 9 students) invalidated the proposals. These results are of prime significance in that they can be compared with the previously presented findings in table 4.9; no significant discrepancy could actually be recognized. Responses to item 14 denote a slight, but significant, shift in attitudes in the sense that although the majority of students approved of the advantages that might be gained out of using Arabic in instruction (e.g. see table 4.9), still some students (though only a marginal population) expressed disagreement with offering higher education in Arabic.

Table 4.10 Students' attitudes towards the implementation of Arabization

N	Item	SD	D	U	A	SA
11	Since language is first and foremost only a means of communication, the same content delivered in French can equally be delivered in Arabic. Therefore, Arabic can be used to teach sciences	3	6	/	77	137
12	Learning through Arabic has more advantages than learning through a foreign language	3	2	7	19	189
13	The fact that I am used to Arabic since childhood as the language of school makes it better to learn sciences in Arabic	5	4	3	7	201
14	It is better to offer higher education in scientific fields in Arabic with the teaching of French as a subject to enable the students develop adequate competence in such a language which is important in Algeria	7	19	11	79	104
15	If I had the choice, I would continue my higher education in the same field but in Arabic	7	17	13	82	101
16	If documentation is available in Arabic, I will be for the Arabization of sciences	5	9	7	39	160
17	If teachers are keen on teaching sciences in Arabic, I will be for the Arabization of sciences	7	6	/	35	172
18	I believe that we must be loyal and enthusiastic towards Arabization	3	2	7	37	171
19	There must be a political decree that requires the Algerian universities to use Standard Arabic in all fields of study, including sciences and technology	7	18	15	41	139



Item 15 requires specific consideration; this is probably the cornerstone of the questionnaire as it can be said that it *implicitly* measures *true* attitudes towards either language (Arabic and French). The results show that a clear majority of students (183) would choose to study the same specialty in Arabic instead of French if they had been offered a choice; 24 students (10.90%) did not give consent. Using a margin of error of 5 and a confidence level of 95%, we argue that between 78.18% and 88.18% of the whole population would opt for studying in Arabic if such option had been furnished. This is an indication on how much important it is to offer students choices instead of imposing a single option.

The results for items 16 and 17 did not reveal any significant change in students' attitudes which remained largely positive towards the Arabization of sciences. Only few students did not show any enthusiasm towards Arabization even with the availability of basic conditions to promulgate a language in education spheres (linguistically competent teachers and enough reading materials). These are the same students who expressed their rejection to item 19. In fact, item 19 measures how much students are found to support, and not only speculatively accept, the implementation of Arabization. The data display that 180 respondents are for a macro, top-down political imposition of Arabic in all institutions of higher education, including scientific and technological institutions. Responses to item 10 are of paramount importance in that they will be compared to teachers' responses to the same item.

What should be stressed is that the results of this subsection have exposed a great deal of consistency as far as the respondents' attitudes are concerned. No noteworthy divergence between the different items could be met.

- **Attitudes towards French**

This subsection addresses students' attitudes towards French. Of the 11 items, only two items (29 and 30) are negatively worded; the remaining items are all positively worded. Table 4.11 illustrates detailed findings.

Concerning the first five items (20 to 24), i.e. items that directly relate content learning to French, the majority of students expressed negative attitudes demonstrating only one fact: French is not really appreciated as a medium of instruction. These items scored nearly equal results; only around 13 respondents disclosed agreement with such statements. What is interesting is that a comparison between results for items 20 vs. 16, and 22 and 23 vs. 10, 12 and 13, respectively reveals no contradictory findings but only a marginal variance. Those who agreed with the first items (10 to 16), and who showed positive attitudes towards the use of Arabic as MI, are largely the ones who expressed negative attitudes towards French as MI. Results for item 24 marked the only exception in that a clear majority of respondents agreed that French, compared to Arabic, is more useful to read about contemporary research in the scientific field (practically the same results for item 10.f, see table 4.9).

It should be emphasized that items 20 to 24 can be seen as an extension of section I of the questionnaire which was already analyzed and discussed in part one. Therefore, any mismatch between the results of the two parts is important. No important conflicting results were actually met (e.g. compare results for item 23 and item 4, see table 4.4).

Table 4.11 Students' attitudes towards French

N	Item	SD	D	U	A	SA
20	Independently from the availability or not of references and even if Arabic is a national symbol, French is more appropriate for the teaching/learning of sciences	109	85	3	15	8
21	Arabic, unlike French, cannot handle scientific discourse; it is a language more appropriate for literature and poetry	115	79	13	6	7
22	Scientific and technical subjects are easier to understand when they are taught in French	177	23	9	5	6
23	Learning sciences in French is a key to high academic attainment	187	21	/	7	5
24	French makes it easy to read and know about current scientific researches throughout the world	23	4	/	181	12
25	Learning sciences in French is a key to international job market	/	26	7	44	143
26	I wish I could develop high level of proficiency in French	3	4	4	15	194
27	I want work/study abroad – therefore I need French	12	14	1	109	84
28	Good command of French, or other foreign languages, is a linguistic richness	/	/	/	21	199
29	Knowledge of French alone is a limitation in that French is useful only in Francophone countries	/	3	4	88	125
30	Being competent in French is not enough to conduct profound research if one is not familiar with other languages, not least English	1	4	3	43	169

Items 25 to 28 require different analysis; they do not address attitudes towards the use of French or Arabic in instruction but rather attitudes towards knowledge of French. In other words, these items are concerned with learning *of* French instead of learning *in* French. Complete reversed results could be achieved, i.e., the respondents displayed very positive attitudes towards knowledge of French.

Of the 220 respondents, 187 students perceived French as an open door to international job market, hence a better future. Few respondents did not display positive attitudes, or motivation, towards knowledge of French.

The responses to the last two items (29 and 30) manifestly exhibited total accord, and then one can effortlessly notice the eye-catching switch between students' responses to these items and their earlier beliefs about items 24 to 28. The explanation is that items 24 to 28 list some of the advantages that French may render and Arabic may not though Arabic is not explicitly mentioned in the statements. Items 29 and 30 are different as they address the utility/limitation of French at the international level; the reference point relates to languages of wider communication (LWC), principally English. The results obviously illustrate that most respondents (213 out of 220) agreed that French is not useful outside the Francophone world.

#### **4.3.2 The Interview Results**

Because the first part of the interview was about how students perceive the hasty switch to French as language of instruction, this part is composed of three main questions that measure students' attitudes towards an Arabic-based higher education. A number of follow up questions were also raised in accordance to what the interviewees revealed. Since all the questions were open-ended, unlike the questionnaire, rich data could be obtained.

As for the first question- a proposal to use Arabic instead of French in science education- responses were extremely positive for most interviewees. Of the 8 respondents, a kind of rebuff was met from two interviewees. One of them (ST 8) responded this way: *“Although many students face serious problems with French, I think that this should be solved in a different way instead of making a switch to Arabic. I do not see this as the optimal option”*. She could not justify her stand with more than positive attitudes towards French which she perceived more appropriate though the question did not address the appropriateness, or inappropriateness, of such scheme. It is of significance to mention that this student was the only one who

responded to the different interview questions in a mixture of Dialectal (Algerian) Arabic and French; the remaining students responded in Dialectal Arabic (borrowed items were not considered as many of these are well-established in the dialect). She is also one of the two interviewees who proclaimed to possess a developed competence in French. The other interviewee (ST 6) did not hesitate to display her *overt* objection to the use of Arabic though she had previously confessed that French constitutes a heavy burden for her.

The six other interviewees, including a competent bilingual (ST 7), excitedly welcomed such a proposal; their facial expressions also mediated eagerness towards the use of Arabic in instruction. One of them (ST 2) reported: “*I really miss the days we were studying all the subjects in Arabic. It is de-motivating to face the change at the university*”. Another one (ST 5) added: “*learning through Arabic is the wish of many students. We don’t see the point in the change in the language of instruction*”. Shared by the interviewees is that much of what they had studied during their first year up to the time of conducting such interviews had already been studied in the secondary school (sometimes with more details) but in Arabic. This implies, according to them, that it does not make any kind of sense to switch to French. Support for the use of Arabic was justified by a number of reasons, such as maximizing understanding of the content during classes and reducing the amount of energy and time spent in translation. To put it in a nutshell, their support for Arabic was mostly related to the high cognitive load they are faced with due to their poor command of French.

Regarding the other question which revolves around what choice the interviewees would opt for in case they were given the right to choose the language of instruction, results were highly in favour of Arabic with 6 students preferring Arabic. Only two respondents (ST 6 and ST 8), the same ones who had already expressed an overt rejection to the first question, preferred French. Comparison between the results of the first question and the second one revealed no disparity. In fact, this question was also addressed via the questionnaire (item 15) where a clear majority opted for Arabic. The state of being cross-verified by two different

research instruments and the fact that the results displayed no significant mismatch but rather a great deal of conformity increases the validity of the findings.

The central question in the interview which seeks to measure indirectly true (*implicit*) attitudes towards Arabic and French goes around what language students would choose if they supposedly had equal (good) command of both languages. The responses yielded highly significant findings in that the students were, for the first time, equally divided with 4 students opting for Arabic and 4 others reserving preference for French. The responses to such a question were not without justifications: those who defended Arabic revealed religious and socio-political considerations; those who favoured French built their positions on the international value of French- an open door to the world. Some of the responses are listed here:

*“Arabic is our official language; it is also the language of the Quran. We should be proud of our identity and our language”* (ST 1)

*“We are Arabs and not French. When I see that French prioritized over Arabic, I feel as if we were still colonized. Real independence, for me, is when we use our local language”* (ST 3)

*“I do not hate Arabic but I rather prefer French for education. It offers me more advantages, especially if I want to study abroad”* (ST 8).

*“If I were competent in French, I would prefer it because Arabic does not serve me well abroad”* (ST 2)

Sheer observation of the results demonstrates an attitudinal change compared to responses to the first and second questions for which a clear majority (6 out of 8) showed enthusiasm towards Arabic-based instruction. Such shift in attitudes concerns two students (ST 2 and ST 4)- to the exclusion of ST 6 and ST 8 who had already expressed negative attitudes towards the Arabization of sciences- who approved of the use of Arabic in the earlier questions because they are actually linguistically incompetent in French. However, if they had good control over French, they would prefer French as a study language. This translates that their

positive attitudes towards Arabic strongly build on the degree of competence in French.

It is of significance to point out that pros, before cons, of Arabization raised a number of issues. There was complete agreement among the interviewees that mastery of Arabic *alone* is a limitation. The shared views are sketched below:

- ✓ Arabic is useful only locally;
- ✓ Arabic does not help to read about the most contemporary scientific production;
- ✓ Arabic science books and articles are not very abundant;
- ✓ students who only know Arabic will be at a disadvantage in that they do not know international languages which are keys to world communication.

Follow up questions to the above-raised issues could come up with a number of views; all of which demonstrated positive attitudes towards foreign languages learning. No interviewee was found to undervalue knowledge of foreign languages. Most respondents employed ‘foreign languages’ as a cover term and did not specify what languages. Related to foreign languages but of concern to this study was to scrutinize whether the interviewees are motivated to learn French or not. In fact, this was not the ultimate aim as it had been already addressed through the questionnaire; the end was to examine reasons beyond the motivation/reluctance to learn it.

The vast majority of respondents expressed positive attitudes towards Knowledge/learning of French. Of the 8 students, 6 expressed their willingness to develop high proficiency in French, and only 2 students did not reveal other than a disinterest in French. The answers of these two students require profound considerations. In the words of one of them (ST 3), *“if Arabic is found useful only locally, French is also useful only in few countries. The number of countries where Arabic is used as first language is higher than the countries where French is used as such. If we have to care about internationalization, English has priority over the two languages”*. The other one (ST 5) argued: *“Since I live in Algeria, Arabic is sufficient to learn, work and communicate with people. I do not need French but I*

*am only forced to accept it if I want to study biology. This is how it works; we do not choose”.*

Because attitudes towards French as MI were largely negative while attitudes towards knowledge of French were, on the contrary, chiefly positive, it was necessary to flick through the reasons beyond such positive attitudes. The main reasons listed by the interviewees are classified from the most- to the least mentioned, as shown below

1. Knowledge of French, or any other foreign language, is a linguistic richness (8 or 100 %)
2. Students want to work and settle down abroad (7 or 87.5%)
3. French is an open door to the world (6 or 75 %)
4. French is more useful to communicate with others on social networks (6 or 75%)
5. Because sciences in Algeria are taught in French, it is a must to know French if students want carry on their university education in a scientific field (4 or 50%)
6. Students plan to further their studies abroad (3 or 37.5%)
7. Learning materials (textbooks, magazines, web articles, etc) are abundant in French (3 or 37.5%)
8. Knowledge of French is a bonus as one who knows more languages has access to more learning resources (2 or 25%)

An examination of the list of the motivating reasons to know, or learn, French disclosed interesting facts. Although reasons 1 to 4 are ranked higher as most students mentioned them, they in fact have ‘minimum’ to ‘no’ relation with studies. As an illustration, attractive enough is the fourth reason which was provided by a good number (6) of interviewees. By contrast, reasons 5 to 8, which scored low frequencies, are tightly related to studies.



Though English has not been raised in any question addressed by the interviewer, all informants made reference to it during the course of the interview. Attitudes towards knowledge of English were extremely positive. This does not insinuate that English as MI would be highly appreciated (this was not probed); such attitudes remain positive towards *knowledge* of English. All interviewees, with no exception, made the point clear that English is the language every student should be concerned with; some of them went to the extent that English should replace French in the Algerian universities.

The concluding question was meant to know whether such interviewees intend to further their studies in the same field or they plan to change. Though such a question might seem detached from the objectives of the present research, it could actually disclose results of high significance. Of the 8 interviewees, 5 respondents argued that they plan to continue in the same field; one student did not give a definite answer building his decision on the grades he obtains in exams; the two remaining interviewees made it clear that they intend to change the study area. According to them, the future destination should be any department other than those in which French is used as MI. Although they did not give a definite answer, they expected that economics or commerce (both departments offer instruction in Arabic) will be the future destination. This may provide clues that the medium of instruction can actually be an instrumental determinant in the choice of the academic discipline.

### **4.3.3 Discussion of the Results**

A convincing discussion of the students' attitudes towards Arabic and French should not exclude what Fishbein and Ajzen (1974) call levels of specificity (cf. section 1.3.2.4). Attitudes towards Arabic or French as languages (general attitudes), attitudes towards learning these languages, and attitudes towards learning *in* these languages (specific attitudes) have different levels of specificity. Hence, the discussion of the results should take account of attitudes towards either language within the same level of specificity otherwise it would impoverish the findings.

Therefore, the discussion of the earlier-presented results should concern two levels: (i) Arabic and French as media of instruction, and (ii) the value of either language at the international scale.

As far as the medium of instruction is concerned, students expressed extremely positive attitudes towards the use of Arabic and, in parallel, denounced the current learning situation characterized by an *exclusive* French-based instruction. Their answers to the most central questions were definite and showed obvious preference, a real wish indeed, to learn sciences in Arabic as they used to during their pre-university education. They made the point stronger when a clear majority further supported the imposition of Arabic through political decrees in all institutions of higher education. Their approval of Arabic, and simultaneous disapproval of French, could be caught in their answers to a fundamental question which was cross-checked by the questionnaire and the interview, and which revealed that the great majority of them unhesitatingly admitted that they would choose to further their higher education in Arabic if they had been offered the choice. This translates that students are actually not freely motivated to learn sciences in French; they are only forced since no other option is provided. This is one of the chief shortcomings of this *micro* linguistic policy initiated and implemented by the institution under study as it does not regard seriously learners' actual needs and attitudes. It goes without saying that learners constitute an important component in the overall language-in-education policy as they are directly concerned with decisions of the policy-makers. As such, an account of students' needs is a must when forming policies and when implementing them.

It is of prime importance to define the reasons beyond such attitudes. In fact, the results presented in part one and the first subsection of part two provide the ground on which an adequate explanation might be reached. An explanation of learner' attitudes towards either language may build on the *functional theory* which relates (language) *attitude formation* to psychological needs (cf. section 1.3.2.2). In this respect, it becomes no wonder that students exhibited positive attitudes towards an Arabic-based instruction simply as a result of the learning advantages that Arabic

offer (profound comprehension, less cognitive load, etc), i.e., Arabic is the language that the students are most comfortable with.

By contrast, they formed negative attitudes towards the use of French in instruction as it does not meet their learning needs, at least at this learning stage. This is of course not because a language is apt to serve instruction and the other is not; the issue largely lies in the fact that such learners are linguistically proficient in Arabic (MI since the first days at the school) and profoundly incompetent in French (largely passive bilinguals). However, one may question whether it is the degree of competence in French which *solely* conditions students' attitudes or other reasons are also strong determinants. A consideration of the questionnaire and interview results altogether is supposed to furnish an adequate answer.

As far as the questionnaire results are concerned, positive or negative attitudes towards French as MI were *largely* defined by students' level of proficiency in French in that the majority, but certainly *not all*, of the students who revealed to possess low command of French expressed extreme negative attitudes towards French as MI. The reverse could be met with *most* (again not all) linguistically competent students who showed positive attitudes towards a French-based instruction. In fact, the general condition was that positive attitudes towards one MI were concurrently coupled with negative attitudes towards the other MI.

A consideration of the interview's fourth question is of central importance. Recall that this question is different from the above-discussed questionnaire item. While this latter is about what language the students would choose if they were offered a choice, the interview question is about what language students would choose if they supposedly had *equal (good) command* of Arabic and French. Results divulged that half of the interviewees opted for French. In fact, there was a significant attitudinal change of a number of interviewees (exactly two) from pros of Arabic to pros of French; this change was met under the condition of a supposed good command of French. This is of course an indication that proficiency in French is a strong determinant of learners' attitudes. However, the same interview question also revealed that half of the interviewees would prefer Arabic even if they were

proficient in French (one of them is actually a competent bilingual). Such attitudes towards Arabic did not build on competence/incompetence in French but rather on different reasons that branch off in two main directions: religious and socio-political. For these students, Arabic should be promoted as it is a symbol of Islamic affiliation. Also, Arabic is a sign of political independence; it has priority over any other foreign language especially French which is still perceived as the language of the old colonial masters.

Because interviewing students was conducted *face to face*, social desirability potential issues might affect students' responses and render the findings of a dubious validity. However, evidence which disobey the previously assumed direct relationship between proficiency in French and learners' attitudes could also be captured in the questionnaire results (recall that the questionnaires are anonymous to avoid any possible influence on students' answers). To put it another way, some respondents (exactly 5 students) who admitted to be incompetent in French and who placed French at the top of the difficulties they encounter during their learning, ironically, revealed preference for French as MI. On the contrary, still a few others (3 respondents) who proclaimed to have good control over French expressed their preference for Arabic. These results weaken, or rather annul, any assertion claiming that attitudes towards French as MI were *solely* defined by the students' degree of bilingual competence. Respondents who provide evidence which violates the linguistic proficiency-attitude consistency form no other than a minority population, however.

The questionnaire results, jointly with the interviews results, emphasize the assumption that learners' attitudes towards French as MI are not *solely* but rather only *partly*, though *largely*, conditioned by the degree of control over this language. Incompetence in French places high cognitive loads on students while learning in that they have to cope concomitantly with the content and the language of the content. Understandably, the effect associated with the MI caused the language attitude, i.e., the effect of MI is stronger than the effect of language attitude. This goes in tight compliance with the point raised by Clark and Trafford (1995) out of their investigation of attitudes and performance between boys and girls in

languages, arguing that “[t]he considerable divergence between very positive, enthusiastic pupils and the more reluctant, sometimes negative pupils seems to correspond largely to ability.” (p. 316).

If we accept that learners’ attitudes are largely defined by their linguistic abilities, and due to the fact that language attitudes are subject to change in accordance with a number of factors (cf. section 1.3.2.3), one may confidently argue that attitudes of the students taking share in this study are mostly *momentary* rather than *constant*. In other words, students’ attitudes towards French, at least a number of them, may change from negative to positive as they advance in their studies, i.e., as their bilingual competence increases through the years of an exclusive use of French in instruction/learning. Also, within classical conditioning, theorists (e.g. Zajonc, 1968) see that attitudes are influenced by the mere-exposure effect, i.e., the more frequently a person is exposed to an attitude object (French in this case), the more favourably he responds to it. Repeated exposure is a window for fostering positive attitudes. Accordingly, the exclusive use of French in instruction may, in the long run, result in an attitudinal change. If this is the case, there is no guarantee that the current positive attitudes towards Arabic will remain stable. This, of course, was not probed further with students at advanced levels, however. At the same time, there is no indication that *all* the students will change their attitudes vis-à-vis Arabic and/or French. When sociopolitical and religious considerations come into play, Arabic remains the language of the soul for a number of students as already highlighted through the interviews.

Beyond the consideration of the medium of instruction and with focus on *knowledge* of French, the results obtained through the questionnaires and interviews displayed unconcealed positive answers in the sense that the majority of respondents wish they had good command of French. Again, explanations of such responses could be met through open-ended interview questions. Accordingly, a variety of reasons beyond these positive reactions could be captured: some are academic but others are largely non-academic.

As far as the academic reasons are concerned, students showed their motivation towards learning French partly because they are actually faced with the truth that they have no choice other than struggling to develop enough proficiency if they wish to further their studies in the same specialty which is offered only in French in the site where this study was conducted. When one says “*I wish I can develop high level of proficiency in French*” (questionnaire Item 26 scored above 88% for strongly agree, see table 4.10), this should not be only and automatically interpreted as strong zeal or positive attitude to learn French; this may also entail the sense of compulsion to know French in order to be able to function academically and this is what was reported by 50 % of the interviewees (see also results for item 15, table 4.10). This translates that students’ responses to item 26 of the questionnaire do not automatically imply that they love learning French (though they may). As Edwards (1994) reports, one might believe that a language is important for his career; yet, he “may loathe the language” (p. 98). In the site under investigation, the student who fails to improve his French will be at a disadvantage and will not be likely to perform well academically. Therefore, working on (not only motivation) increasing competence in the language of instruction becomes a necessity whatever the attitudes might be. It is of significance to note that if inability in French was the main reason beyond learners’ negative attitudes towards French as MI, here again linguistic inability is most likely the impetus which drives learners’ positive attitudes towards learning French.

On the other hand, the *majority* of students expressed positive attitudes towards knowledge of French basically for non-academic reasons in that the motives that were listed by practically all the interviewees have little to no bond with studies; they are chiefly associated with two basic concepts: emigration and international communication. The interviewees, perhaps students in general, see French an open door to the world, and most of them expressed their want to live abroad (not to study abroad though this was mentioned by 3 interviewees). Such interviewees apparently perceive ‘the world’ or ‘abroad’ as ‘outside the Arab World’, ostensibly France. ‘Abroad’ (developed world) constitutes the first concern

and the best escape of the respondents whatever the end might be (i.e. studying or only living). Tackling such findings from a non-linguistic standpoint is essential: do Algerian academic institutions produce elites for the local benefit or only prepare, and then offer them to the West especially that education is free from the primary school up to graduation from university (the highest state's budget with the Ministry of Defense)? Dealing with such a question is beyond the scope of this thesis, especially that it requires a consideration from a variety of angles: political, socio-economic, etc.

Students' positive attitudes towards knowledge of French can, again, be explained in the light of the functional theory, precisely the *utilitarian function* (cf. section 1.3.2.3). The blatant appreciation of knowledge of French is due to the potential gains that it avails to students, not only in their academic career (e.g. rich learning resources) but also as a LWC; Arabic understandably misses such gains. In this respect, Chambers (1999:27), commenting on attitudes towards language learning, observes that language attitudes are “shaped by the pay-offs that [the learner] expects; the advantages that she sees in language learning. The values which a pupil has may be determined by different variables, such as [...] experience of travel [...]”. According to Gardner (1985), a leading theorist in foreign language learning, attitudes can either be of *instrumentality* or *integrativeness* types. The latter type may confer the learner a strong desire to learn the language without expecting any reward; reward is in the learning process itself. Though instrumentality attitudes can also form positive attitudes, these cannot be as strong as the ones furnished by the integrativeness one. Instrumentality attitudes are more of a means than an end (Gardner, *ibid*).

As for the sample population under study is concerned, students' positive attitudes towards learning/knowledge of French are more of an instrumentality type, i.e. good command of French is the means to perform successfully at school, travel abroad, etc. Learners' positive attitudes can also be explained within the *value-expressive function* (cf. section 1.3.2.3). Many learners form positive attitudes towards good command of French not (only) because of its benefits (utility), but also as a result of what it says about them: French is often regarded a sign of a well-

educated (Algerian) individual. Therefore, the value given to the behaviour (speaking French) stands for the attitude held towards that behaviour (Cochran *et al.*, 2010).

As far as students' attitudes are concerned, students' positive attitudes towards Arabic are mostly for pure academic ends in the sense that Arabic is the language that students are most comfortable with while learning content subjects. Likewise, negative attitudes towards French are also basically built on academic reasons in that French constitutes a serious hurdle to efficient learning as a result of the students' profound bilingual incompetence. At the international scale, the reverse is true. In other words, French is highly appreciated, whereas Arabic is understandably undervalued. However, attributing high value to French is not solely defined by the scholastic benefits that might be gained from knowledge of such a language but rather largely by other non-academic advantages (e.g. social mobility).



#### 4.4 Part Three: Teachers' Attitudes towards the Arabization of Sciences

This part is meant to provide an answer to the third research question which revolves around teachers' attitudes towards the Arabization of sciences. In order to verify the validity of the related hypothesis, the results are presented with regard to the two categories of teachers. In other words, attitudes of the 'arabisant' teachers will be compared to attitudes of their 'francisant' counterparts. Here again, the results of the questionnaire and the interview are separately exposed but jointly discussed.

##### 4.4.1 The Questionnaire Results

The results will be exposed in four interrelated subsections. As already stated above, the results will be analysed according to teachers' pre-university education (arabisant vs. francisant), as shown below.

- **Perceptions of Arabic as medium of instruction**

This subsection contains the same items that were directed to the students. It aims to see whether students and teachers share the same view or have different perceptions on the use of Arabic to teach sciences, namely in terms of the expected advantages/disadvantages that Arabic may/may not render. The six items (a, b, c, d, e and f) are listed under a general statement formulated this way : "*Regardless of whether you can do it or not, and due to the fact that students have been habituated to Arabic since childhood, the use of Arabic, compared to French, is supposed to ...*". Teachers were required to give their beliefs in a three-point scale constructed of 'yes', 'no', and 'not necessarily'. Results are summarized in table 4.12, presented below.

Table 4.12 Expected outcomes of Using Arabic as MI

	a. make students' acquisition of information and assimilation of the content quicker, easier and deeper	b. increase the degree of students' participation and discussion during classes	c. create harmony between students' thinking and speaking	d. bolster students' interest in learning	e. hinder scientific development and negatively affect students' scientific level	f. isolate the learners/researchers in that it does not allow them to read and know about the scientific discoveries and advancements reached worldwide
<b>5.Using Arabic, compared to French, is supposed to</b>						
N Valid	22	21	22	21	21	21
Missing	0	1	0	1	1	1
Mean	1,3182	1,3333	1,4545	1,2857	1,6190	1,4286
Median	1,0000	1,0000	1,0000	1,0000	2,0000	1.0000
Std. Deviation	,47673	,48305	,50965	,46291	,49761	,50709

The data indicated mixed perceptions on the advantages that Arabic would provide. Item 'd', followed by item 'a' and 'b', scored low mean. The smaller the mean is, the higher the agreement is. Of the 22 teachers, 15 teachers (or 68.2%) opted for the 'yes' option for both 'a' and 'd'. As for item 'b', two thirds (or 63.6%) showed total approval.

Table 4.13, presented below, sorts the same results according to the two categories of teachers. The first eye-catching remark is that the column for 'not necessary' scored zero point. The data blatantly demonstrate that the vast majority of the arabisant teachers confirmed the usefulness of Arabic as a language of instruction. The items 'a', 'b' and 'e' scored positive approval by nearly three fourths of the teachers. As for the francisant teachers, beliefs are almost equally divided. Results show that respondents are literally split down the middle on whether or not Arabic is supposed to render advantages as far as content learning is concerned. The only significant difference relates to item 'd' for which a clear majority disclosed that Arabic is supposed to sustain students' interest in learning. In sum, teachers, being arabissants or francisants, who positively perceived the use

of Arabic outnumbered their counterparts who exposed definite disagreement with the utility of Arabic. The only negative aspect which received high agreement is that Arabization (in the sense of *only-Arabic policy*) does not allow learners/researchers to be up-to-date with scientific achievements throughout the world as most contemporary research is composed in foreign languages.

Table 4.13: Frequency table of expected outcomes out of using Arabic as MI

	Item	Category	Yes	No	Not necessarily
a	make students' acquisition of information and assimilation of the content quicker, easier and deeper	Arabisant	9	2	/
		Francisant	6	5	/
b	increase the degree of students' participation and discussion in the class	Arabisant	8	3	/
		Francisant	6	4	/
c	create harmony between students' thinking and speaking	Arabisant	7	4	/
		Francisant	5	6	/
d	bolster students' interest in learning	Arabisant	7	4	/
		Francisant	<b>8</b>	<b>2</b>	/
e	Arabization will hinder scientific development and negatively affect students' scientific level	Arabisant	3	8	/
		Francisant	5	5	/
f	Arabization will isolate the learners/researchers in that it does not allow them to read and know about the scientific discoveries and advancements reached worldwide	Arabisant	6	5	/
		Francisant	6	4	/

▪ **Ability to Teach in Arabic**

This subsection is made up of six items which are all positively-worded. As sketched below, table 4.14 tells that teachers' responses were definite in that the option for 'undecided' scored zero point. The first three items (6 to 8) obviously address the *theoretical* possibility of using Arabic to teach sciences. Though the

number of teachers who agreed on the feasibility of such a proposal is quite high, still a significant portion did not consent. Interesting to our analysis are items 7 and 8 which can be literally perceived as two faces of the same coin; item 8 is only a rewording of item 7. As for item 7, the arabisants were, say, equally divided between agree and disagree as opposed to the francisants whose majority agreed. Of the former group, only 54.5% showed approval in comparison with a higher percentage of the latter group (63.7%). Reversed results were captured with item 8 on which the majority of the arabisants (72.8%) approved of the theoretical possibility of using Arabic to teach sciences as opposed to the francisants whose attitudinal change was apparent, with more than the half (54.5%) disproving of such a claim.

Table 4.14 Teachers' Ability to teach in Arabic

Item	Category	SD	D	U	A	SA
6. Learning efficiency can be best met through the mother tongue medium	Arabisant	2	1	/	4	4
	Francisant	4	1	/	3	3
7. The same content delivered through French can equally be delivered through Arabic since language is first and foremost only a means of communication	Arabisant	3	2	/	3	3
	Francisant	2	2	/	5	2
8. Theoretically, it is possible to use Arabic to teach sciences	Arabisant	3	/	/	4	4
	Francisant	5	1	/	1	4
9. I can teach in Arabic with no problem (in terms of competence)	Arabisant	1	5	/	4	1
	Francisant	4	1	/	1	5
10. I can teach in Arabic but I may face real problems with equivalents of scientific terminology	Arabisant	1	2	/	4	4
	Francisant	3	1	/	2	5
11. In case a political decree imposing the exclusive teaching of sciences in Arabic is implemented, I can manage and train myself to deal with the new situation	Arabisant	1	1	/	3	6
	Francisant	2	2	/	1	6

Items 9 to 11 go around teachers' ability/inability to teach in Arabic. The results illustrated that of the 11 arabisant respondents, 8 teachers asserted their ability to lecture in Arabic although they may be confronted with the issue of lexical gaps in terms of subjects-related terminology. The dazzling results relate to the remaining three teachers who negated the item bearing in mind that such teachers have undergone an entirely Arabic-based pre-university education. By contrast, though the francisant teachers have only known Arabic in their schooling years as a subject of instruction (or MI in minor subjects), 7 of them confirmed to be able to use Arabic in instruction.

Item 11 is the cornerstone of this subsection. This item *overtly* considers the ability to use Arabic under political compulsion, but it in fact *covertly* measures the *readiness* (including attitude and motivation) to learn and/or use Arabic. Sheer observation of the results indicates a little, but significant, change in the arabisants' responses compared to their earlier responses to item 10. It is clear that 6 teachers (instead of 4) strongly agreed, and only 2 teachers (instead of 3) still proclaimed inability to lecture in Arabic even under political pressure; to what extent this is true remains unprobed. These results demonstrate how a teacher may *explicitly* reveal inability to use Arabic while hiding his (*implicit*) unwillingness to use it. In our data, this excludes the francisant teachers as the number of respondents who expressed agreement or disagreement with items 10 and 11 remained unchanged.

- **Attitudes towards the implementation of Arabization**

If the afore-discussed subsection addressed teachers' ability to teach in Arabic, which is of course a prerequisite for the (successful) implementation of the Arabization policy, this third subsection rather measures teachers' degree of acceptance of, and willingness to contribute to, the actual implementation of Arabization. Of course, the difference is apparent between someone who accepts, i.e., is convinced with the practicality of Arabization, and someone who supports, i.e., showing eagerness and enthusiasm towards its implementation. The results are exposed in table 4.15, sketched below.

Table 4.15 shows that the results for the two groups of teachers do not expose noteworthy differences. Hence, the educational background of teachers cannot be regarded as a determinant variable.

Table 4.15 Teachers' attitudes towards the implementation of Arabization

Item	Category	SD	D	U	A	SA
12. If a good number of scientific documents (e.g. books) are available in Arabic and I am given enough time to be used to Arabic, I will be for the Arabization of sciences	Arabisant	1	4	/	2	4
	Francisant	4	1	1	2	3
13. We must be loyal and enthusiastic towards Arabization	Arabisant	1	2	/	3	5
	Francisant	3	/	2	2	4
14. There must be a political decree that requires the Algerian universities to use Standard Arabic as a medium of instruction in all fields, including sciences	Arabisant	<b>5</b>	<b>4</b>	/	<b>1</b>	<b>1</b>
	Francisant	<b>5</b>	<b>1</b>	2	<b>1</b>	<b>2</b>
15. Even if the language of scientific research of the majority of Algerian teachers is French, I support the idea that every teacher should normally participate in the Arabization policy by providing at least an Arabic version of his research material (articles, manuals, etc)	Arabisant	2	2	/	3	4
	Francisant	3	1	1	1	5
16. I do not oppose the idea that education in scientific fields will be offered exclusively in Arabic with the teaching of French (FSP) as a subject focusing on scientific terminology to enable the students make use of French-composed resources	Arabisant	2	4	/	3	2
	Francisant	3	1	2	3	2
17. I believe that proficiency in Standard Arabic should be a criterion in the recruitment of university teachers	Arabisant	5	2	/	3	1
	Francisant	5	1	1	1	3

Item 12 requires specific considerations in that it takes account of two characteristics required in the language of instruction (linguistically competent teachers and enough reading material). Of the 22 respondents, 5 teachers from each category (45.45%) explicitly manifested disapproval even under the availability of such necessary conditions; such teachers are said to have revealed their *true* attitudes towards the Arabization of sciences as the wording of item 12 measures *directly*, and not *implicitly*, language attitudes. With a confidence level of 95% and

a margin of error of 5, we can be sure 95% that if we had addressed the item to the whole population between 40.45% and 50.45% would have revealed disapproval. Figure 4.4 is a graphic representation of such results.

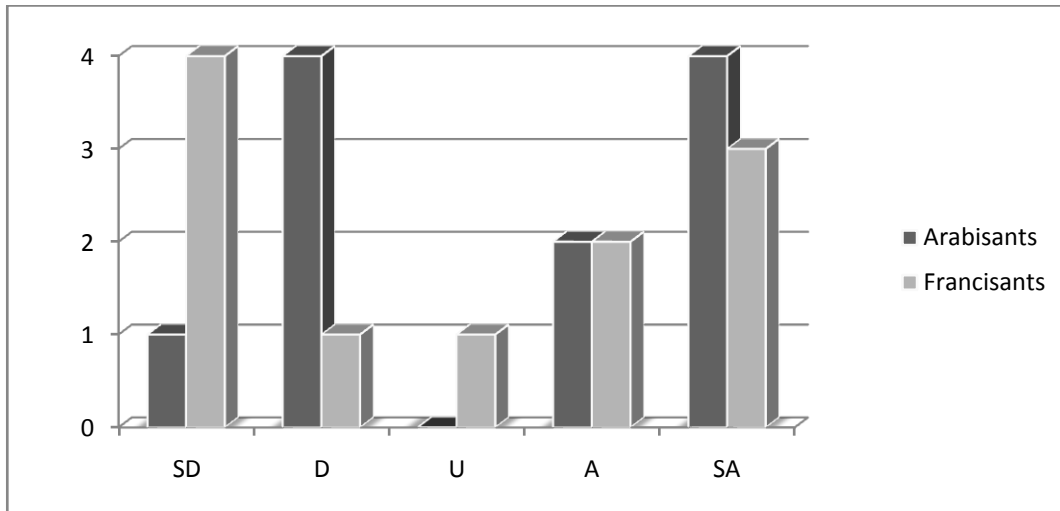


Fig 4.5 Teachers attitudes towards Arabization under the availability of basic requirements

Item 13 scored the least disapproving rate; the reason is probably that this item taps the *affective* component more than the *cognitive* component of the attitude structure. As for item 14, the majority of teachers (15 out of 22) did not acknowledge the political imposition of Arabization. Interestingly, opposition came on the part of the arabisants more than on the part of the francisants. Results for this item are in sharp contrast with the results scored by the students for the same item for which 180 students (out of 220) enthusiastically supported the imposition of Arabic via exigent political texts (see table 4.10).

The responses to item 15 which goes around the personal contribution of each teacher in the policy of Arabization can best be compared to those responses to item 11 (table 4.14). This may allow capturing real, *implicit* attitudes. The francisants displayed a strong consistency in their attitudes, of whom 4 (the same) manifested disagreement with both items. This is not the case with the arabisants where only 2 teachers claimed to be unable to teach in Arabic even under political

pressure (item 11), but the number of teachers who opposed concrete contribution to Arabization is four (item 15). If the ability to use a language (orally) and the ability to produce in that language (in writing) are considered, one may conclude that the arabisants' answers bear some contradiction in the sense that one who is able to lecture in Arabic is also, at least theoretically, able to write in that language though he may face challenges in terms of stylistics. If we accept this claim, it will be possible to assert that some arabisant respondents (precisely two teachers) did not reveal other than an act of *unwillingness*, instead of inability, to write in Arabic. The responses of the francisants exhibited no contradiction provided that those who do not have good control over Arabic to the extent to lecture in this language are themselves the ones who cannot write in it. Unlike the arabisants, responses of these teachers can be interpreted as *inability*, instead of disinclination, to use Arabic.

As far as items 16 and 17 are concerned, agreement remains under average. Interesting is that the arabisants who supported the inclusion of the criterion of proficiency in Arabic in teachers' recruitment are equal to the francisants. The point with such results is that the inclusion of this criterion is not supposed to be a real hurdle for the former category as they normally possess better control of Arabic. Though the situation might be more complicated for the francisants, no significant statistical differences could be spotted between the two groups of teachers.

- **Attitudes towards French**

This fourth subsection of the questionnaire consists of seven items; 18 to 21 concern what language teachers prefer to use. The last three items (22 to 24) are of a different kind and do not raise the issue of Arabic vs. French as it will be discussed below. Table 4. 16 gives detailed results.



Table 4.16 Teachers' attitudes towards French

Item	Category	SD	D	U	A	SA
18. Regardless of the availability or not of references and even if Arabic is a national symbol, French is more appropriate for the teaching/learning of sciences	Arabisant	1	/	/	5	5
	Francisant	1	3	/	4	3
19. Arabic cannot handle scientific discourse; it is a language more appropriate for literature and poetry	Arabisant	7	/	/	3	1
	Francisant	5	3	/	2	1
20. Even though I can teach in Arabic, I oppose doing it	Arabisant	3	4	/	3	1
	Francisant	7	1	1	1	1
21. Resources for teaching, e.g., textbooks and reference books, are more available in French than in Arabic	Arabisant	1	/	/	/	10
	Francisant	/	/	/	2	9
22. French is sufficient for me to read about findings of most current researches conducted in the scientific domain worldwide	Arabisant	5	4	/	/	2
	Francisant	5	3	1	/	2
23. French is enough for me to develop high expertise in my field of research	Arabisant	5	4	/	/	2
	Francisant	5	3	1	/	2
24. As a teacher researcher who knows French well, I do not find the situation hard when it comes to international scientific conferences though I may not know other languages, not least English	Arabisant	9	1	/	1	/
	Francisant	7	2	/	/	2

Item 18 is central to our analysis as it obviously excludes reading materials, a crucial element that a language requires to be used in education, and therefore, in a way, it *directly* measures attitudes towards the two languages. Of the 22 respondents, 17 teachers believed that French is more appropriate than Arabic for teaching sciences. Of these 17 teachers, the arabisants form the majority with 10 respondents. Interestingly, the number of the francisants who did not agree with such a claim perceptibly exceeded that of the arabisants (4 vs. 1). Though such teachers disapproved of item 18, this should not be interpreted as negative attitudes

towards French. They only might think that both Arabic and French are equally appropriate for teaching sciences. These results become of high value if they are compared with earlier results. While two-thirds of the arabisants had already argued that they could teach in Arabic, though they might be confronted with some difficulties in terms of terminology and that Arabic can handle scientific discourse (see results for items 10 and 19, respectively), all but one of them regarded French more appropriate for the delivery of sciences. In fact, these attitudes might be interpreted as real, covert negative attitudes towards Arabic. By contrast, what was revealed earlier might not be other than overt attitudes.

Item 20 is probably the most direct one. Hence, it becomes effortless to notice that any respondent who expressed agreement with this item is said to have revealed *true* attitudes (4 arabisants as opposed to 2 francisants) as its wording indicates rejection to deliver lectures in Arabic even when one can do it hands down. The position of the majority (15 out of 22) who did not give consent to this statement should not be understood as a positive attitude towards the use of Arabic because of the wording of the item (direct measurement). Though this helped to spot some teachers who expressed their real attitudes, it remains challenging to measure attitudes directly as the informants may only reveal socially-desirable attitudes. This is its blessing and curse at the same time.

Although all the items showed mixed attitudes towards the two languages, with clear approval of French, the last three items (22-24) revealed attention-grabbing findings. These items do not address the Arabic-French question and what language teachers prefer, but they rather consider the value that teachers attribute to French with regard to other international languages, indirectly English. The results send a signal saying that teachers believe that knowledge of French alone is a real obstacle to their research career. Being teachers and researchers at the same time implies that they need to update their information, read about the most current findings, and participate in scientific conferences worldwide. For them, French does allow to meet perfectly such necessities.

#### 4.4.2 The Interview Results

It is worth remembering that six teachers, three young arabisants (TT 1, TT 2 and TT 3) and three experienced francisants (TT 4, TT 5 and TT 6), were approached through a semi-structured interview. This second part of the interview was a continuation of the first part which goes around teachers' perceptions of students' command of French and how much it may complicate the learning of content subjects. Unlike the questionnaire which draws more on *beliefs*, the interview attempts to tap both the *cognitive* (belief) and the *affective* (feelings) components of the attitude and to examine the attitude-behaviour consistency.

As such, the first question aimed to check teachers' attitudes towards teaching in Arabic instead of thinking of ways to help students overcome barriers caused by the language of instruction (i.e. French). The teachers were approached with an open-ended question '*what do you think?*' without, of course, specifying whether the interviewee is for or against, competent in Arabic or not. The responses were mixed between pros and cons. One francisant teacher (TT 6) overtly rejected the idea. Her reply was quick and definite in a short sentence: "*Please! Please! Please! How can it be possible? I personally do not like such idea*". Two other arabisants (TT 1 and TT 2) did not give definite answers but their facial expressions obviously signaled aspects of disagreement. The remaining teachers showed agreement with the feasibility of the proposal. However, it is necessary to mention that no one answer was without comments. Shared by the majority of respondents is that the issue does not concern Arabic as a linguistic system but relates, in essence, to two major points: availability of teaching/learning references and ability (or readiness) of teachers to lecture in Arabic.

As a follow up question, all respondents were required to answer whether or not they had read Arabic-composed scientific materials. The aim here was to know if Arabic references are really available or not. The two francisant teachers (TT 4 and TT 5) in addition to the arabisant one (TT 3), who had already expressed acceptance of the idea raised by the previous question, declared to have read materials of this kind: because they very often switch to Arabic when they teach

first year students, they need to know equivalent Arabic scientific terms. The other francisant teacher (TT 6) revealed that she had/has no interest in Arabic. The two other arabisants explained that they used to read in Arabic, even to translate into it, but only when they were students at beginning levels. As teachers, they admitted not to read such materials in Arabic. A teacher (TT 1) proclaimed that arabized books and articles are sometimes mistaken because of the wrong use of subjects-related terminology. In the words of another (TT 2), *“the terms used in Arabic are hard to know. It takes time to check the meaning in the dictionary”*. The francisant teacher (TT 6), who had already confessed not to read in Arabic, reported: *“textbooks and journals in French are of higher quality than those in Arabic”*. She adds: *“I want to read the original version not the translation”*. The question of whether the material she reads in French is original or only translated remained unanswered.

Then, the teachers were asked to comment on cases within Algeria or across the Arab World where Arabic is used as medium of instruction in scientific and technological institutions of higher education. None of the interviewees denied such a fact. An arabisant (TT 1) argued: *“the department of biology in Oran University, which is older than our department, offers courses in two languages from first year up to graduation, and the students have the choice to join the section of Arabic or the one of French”*. Another one (TT 3) divulged that his colleagues in some Algerian universities, especially in the southern part of the country, as in Bechar University, use Arabic with first year students and they gradually switch to French as they advance in their studies. All the interviewees made the point clear that lecturing in Arabic remains firmly based on teachers’ ability or *want* to do so.

As for the fourth question which addresses whether Arabization of sciences, under the availability of the necessary conditions (e.g. enough references, teachers who master Arabic, etc), is the best option or such linguistic policy should be banned, responses were varied. Three teachers (TT 1, TT 2 and TT 6) insisted that Arabization should not be promoted in the domains of sciences and technology. One of these teachers (TT 1) reported: *“Personally, I respect Arabic only because of its religious value being the language of the Quran. Arabic does not really fit the*

*teaching of contemporary sciences*”. The other teachers expressed approval of Arabization if these necessary pedagogical elements are available. They revealed that they actually use Arabic with first year students. In the words of one of them (TT 3), *“it is possible to arabize biology, geology, mathematics and even medicine. This could be implemented in other fields which were only taught in French some time ago, like economics and commerce. In these fields, not only do teachers lecture in Arabic but they also produce pedagogical manuals in Arabic”*.

As a follow up question, every interviewee was required to list the possible outcomes of Arabization. Only one francisant teacher (TT 6) did not hesitate to state publically that Arabization can bring no advantages as far sciences are concerned. In her words, *“since the implementation of Arabization in our schools, the level of learners is in continuous decrease. I wonder what would occur if higher education was also subject to this unplanned policy; of course, if it really deserves the name ‘policy’*. She justified her stand on the ground of the current low academic position of the Arabic-speaking countries at the international scale. She revealed that Arabic cannot permit to run the course of development. All the other interviewees provided banes and boons that may result from Arabization; most of these resemble those provided in the questionnaire. An arabisant teacher (TT 1) who, ironically, had already expressed nothing other than a preference for French paralleled with *explicit* negative attitudes towards Arabization, reported this way: *“When we were second year [biology] students, a lecturer who used to teach in one of the Gulf countries and knew only English as a foreign language used to teach us in Arabic. Honestly, we felt at ease and it was really helpful at that time since we were not proficient in French yet”*.

However, teachers made the point clear that students must be encouraged to learn foreign languages (without specifying what foreign language) because those who only know Arabic will be at a disadvantage since:

- there is a sharp shortage in terms of references;
- references in foreign languages are of a higher quality;
- scientific research in the Arab World remains underdeveloped; therefore learners need other languages that are key to international communication

The advantages and disadvantages that were provided did not concern only students but also covered teachers. There was a general agreement that Arabic is in no way sufficient for teachers. The fact that they are academicians and researchers who need continuous training makes it necessary to master other languages. Otherwise, they will be isolated from the rest of the world where sciences know an unprecedented development. They also raised the point that Arabic scientific terminology (scientific register) remains the first problem that teachers encounter, especially with the lack of homogeneity of terms across the Arabic-speaking countries (see section 2.3.4). Beyond such drawbacks, teachers acknowledged that good control of the Arabic scientific register might be advantageous in a variety of ways. For instance, some of the interviewees pointed out that Arabic is the *lingua franca* which permits successful cooperation across the Arab World which is linguistically divided with an east (Egypt, Gulf, etc) promoting English and a west (the Maghreb) crowning French as the basic language in scientific and technological institutions. They observed that this dissimilar foreign language domination on higher education remains one of the basic factors which limit scientific cooperation between the two edges of the Arab World.

In the course of the interviews, some respondents raised the point that teaching in Arabic primarily depends on the lecturers' willingness (though it also evidently requires a degree of effort to translate what they know into Arabic). In fact, some interviewees reported that they did/do use Arabic *extensively* with their first year students. An arabisant teacher (TT 3) revealed that he switches to Arabic whenever students go blank. This is, according to him, the best strategy to backup students. A francisant teacher (TT 4), an ecologist, had this to say:

I used to teach first year students for a long time, and although my personal education was mainly in French, it only took fifteen days to translate and memorize the terms that I frequently use. I relied basically on Arabic during the whole first semester but I gradually switched to French as the students became used to it. It was a kind of linguistic support to help them get gradually inserted in the new learning environment. In this way, I could achieve remarkably good results.

Another francisant teacher (TT 5) revealed that he is still teaching physics in Arabic for first year students. In his case, French is also used not as the principal MI but purposefully to make students know French equivalent physics-related terms; his switch to French is also made to meet the needs of foreign (African) learners who do not know Arabic. He also argued that the results he reaches, whether during classes or after exams, are generally good.

As the interview moved to its end, the teachers were required to elicit remedial proposals to the current language-in-education policy in Algeria or at least proposals that may rationalize the negative effects resulting from the abrupt switch in the MI. Each interviewee raised an interesting suggestion, sometimes the same suggestion was shared by the majority of, if not all, the interviewees. Here are the main proposals:

- Restoring bilingual education in pre-university;
- gradual switch from Arabic to French at the university level;
- adopting an efficient language immersion programme for first year students.

At last, it is of prime significance to mention that *all* the interviewees, without asking them and just like students, emphasized the importance of English in the scientific domain. They made the point clear that French does not serve them efficiently outside the classroom. To put it another way, French is, in the words of a teacher (TT 6), “*a language only sufficient to teach but certainly not to conduct profound research*”. A teacher (TT 2) complained this way: “*Doctorate students are faced with a sharp shortage in references. High quality books and research papers are chiefly available in English, and it is in no way possible to achieve a good work*

*without reference to the English literature*”. Still another one (TT 3) commented that he spends a lot of time on web-translation from English to French. Another teacher (TT 6) raised the point that publishing research papers constitutes a crucial challenge for them in that they write in French, but highly accredited journals basically publish English-composed papers. Being researchers who generally participate in conferences and undergo training programmes abroad, the interviewees admitted that their participations and/or training are generally limited to the Francophone countries or those conferences where French is also permitted. Teachers also addressed the need to revise the status of English in the Algerian school system.

#### **4.4.3 Discussion of the Teachers’ Results**

On the basis of the results achieved through the questionnaire and the interview as well, and which displayed noteworthy conformity, it is obvious that teachers’ pre-university education is not a *defining* variable which determines their attitudes towards the Arabization of sciences in that responses to the most central attitudinal items did not reveal significant differences among the two categories of teachers. Thus, the third hypothesis- which puts forward that the arabisants may approve of Arabization, whereas the francisants are more likely to reject such a language policy- is nullified. Instead, opposing Arabization was sometimes, at least overtly, stronger on the part of the arabisants. Also, unlike the francisants, the arabisants’ responses displayed irregularity, being sometimes pros and others cons even to the closely related items/questions.

The data illustrated that a number of teachers (including the arabisants and the francisants) not only implicitly but also explicitly disapproved of the Arabization of sciences; their responses to the *direct* items/questions, especially those including conditions under which Arabization can be implemented revealed blatant rejection. Because attitudes were measured through direct methods, including the (anonymous) questionnaire but most importantly semi-structured interviews conducted *face to face*, these teachers are said to have expressed their



*true* attitudes as they did not seek to meet what might seem socially-desirable answers (recall that Arabic is the (socially) sacrosanct language as well as the State's official language). If such results are achieved through *direct measurement* of language attitudes, they endorse the validity of the findings.

The data also exposed that a significant portion of teachers did not approve of even the basic items/questions. For instance, about 40.9% of the sample population did not agree that the content conveyed through French can equally be delivered through Arabic. Besides, only 59.1% agreed that Arabic can, *theoretically*, be used to teach sciences (see table 4.14). On the ground of the linguistically acknowledged notion that *all* languages (including non-standard varieties) are of equal status as long as they fulfill communication, it would be unsound to assert that Arabic is not *equally* apt to deliver content subjects, especially given that Arabic is a standard language with oral and written traditions. This is made stronger if we consider that Arabic is *actually*, but certainly *not theoretically*, the MI in all fields of study (literary or scientific) in the pre-university stage. Further, it is also the language of teaching and learning in a number of scientific and technological institutions of higher education across the Arab World, including some Algerian instances.

On the basis of the findings, approval or disapproval of either language was found to be firmly related to its value at the international level. When no alternatives other than Arabic and French were posed, the majority of teachers displayed clear preference to French. When indications to English were provided, teachers did not hesitate to admit that ignorance of English is a limitation which seriously handicaps their research career. Their earlier approval of French swiftly shrank when English came into mention though all teachers admitted to have a limited or no control of English. This leads us to conclude that the more a language is found functional outside its native borders, the more it gains approval. However, endorsement of a language does not automatically imply developing positive attitudes towards that language, i.e., one who approves the importance of, for example, English (in this case) may neither like English (general attitude) nor learning it (specific attitude) - Recall that the attitude is of a tricomponential

structure (cognitive, affective and behavioural) and that consistency between these components may or may not hold (see section 1.3.1). Technically, what is evident is that if approval of English is not automatically a positive attitude, it is certainly a positive *belief* (cognition).

Approval of French at the cost of Arabic, just like approval of English over French and Arabic, can be adequately discussed within the *functional theory*, precisely the *utilitarian/instrumental* function (cf. section 1.3.2.2). Teachers' attitudes, or at least their beliefs, develop on the basis of how the attitude object (languages in this case) meets their wants. Although the majority of teachers acknowledged that the use of Arabic as MI would render a lot of advantages to learners, Arabic seemingly does not offer teachers many/any advantages. By contrast, French understandably furnishes at least some gains (e.g. rich learning resources, training programmes abroad, etc). They did not approve of French outside the classroom, i.e., as language of research, just because they find themselves at a disadvantage if they do not know English. As such, it becomes no wonder that teachers form positive attitudes towards the language that best meets their psychological needs.

Positive attitudes towards French can also be explained in the light of classical conditioning theories, especially within Zajonc's (1968) mere-exposure effect theory, also known in social psychology as the familiarity principle. Zajonc (*ibid*), among others, states that "mere repeated exposure of the individual to a stimulus is a sufficient condition for the enhancement of his attitude toward it" (p.1). If we accept this, it becomes natural for teachers to display positive attitudes towards the language they use most frequently. For the francisants, French has always been the language of learning and teaching. Although the arabisants had probably faced serious problems with French as beginning university students, frequent exposure to French (as students) then repeated use of it (as teachers) is supposed to lead them to develop positive attitudes towards it.

Of importance to this discussion are those who expressed positive attitudes towards Arabization as it is significant to explore whether these *overt* attitudes match, or differ from, real (*covert*) attitudes. A consideration of, for example, responses to item 18 of the questionnaire (cf. table 4.16) may tell crucial facts. Most teachers, especially the arabisants (90.90% as opposed to 63.6% of the francisants), revealed *explicitly* that French is more appropriate than Arabic for the teaching of sciences. Such responses do bear, *implicitly*, negative attitudes towards Arabization since a clear majority of them (8 arabisants and 5 francisants) had already agreed that Arabic is capable of handling scientific discourse and admitted that Arabic can, at least theoretically, act as a language of instruction. If such a claim is validated, one would be hard pressed to deny that all the arabisants but one bear, either explicitly or implicitly, negative attitudes towards Arabization. The same inference applies to no less than 7 francisant teachers. Although it remains hard to assert, it is more probable that the positive attitudes towards the use of Arabic expressed by the other teachers (1 arabisant and 4 francisants) are real attitudes in that such teachers did not display any contradictory positions towards the different items.

The use of a language in instruction is doomed to failure if the implementers, i.e. the classroom teachers, do not fully master that language. The questionnaire results revealed that of the 22 teachers, 15 declared their ability to lecture in Arabic though they may be faced with the issue of the equivalent Arabic terminology. Under a supposedly *de jure* imposition of Arabic, this number increased (see table 4.14). The point here is that if one *cannot* teach in Arabic, he would, rationally, not be able to do so under coercion otherwise the proclaimed inability would be possibly interpreted as nothing but an act of *unwillingness* to use, or learn, Arabic though the items 10 and 11 addressed the ability and not the willingness to teach in Arabic.

If this is the case, comparison between the results of the above-discussed items would allow capturing *hidden* negative attitudes towards the use of Arabic, typically on the part of the arabisants. This contrasts with the francisants (4 respondents) whose responses remained unchanged revealing an inability to lecture in Arabic, whether willingly or under policy pressure. As to these results, a kind of peculiarity surfaces in that two-thirds of the francisants asserted that they are capable of lecturing in Arabic. These are in fact encouraging findings as these teachers had been raised in an almost French-based school system; it is no surprise that some of them (one-third) negated the ability to teach in Arabic. The peculiarity is rather when some of the arabisants overtly announced the inability to use Arabic and did not only confine the issue to the Arabic scientific terminology; such teachers knew only Arabic as MI during their pre-university schooling. To what extent what they averred is true is hard to prove<sup>53</sup>.

However, some examples of comparable counterpart teachers may bestow indications that are likely to confirm or invalidate their claims. For example, some teachers who hold postgraduate degrees (Magister and Doctorate) are now teachers in secondary schools. They, of course, use Arabic to deliver the content of the sciences module- a content that is complex and very similar to the content presented in the first year university level in biology. These teachers can be compared to those arabisants participating in this study in that they underwent the same university (French-based) education and hold the same degrees but they only did not get the opportunity yet to teach at the university. Another example relates to mathematics and statistics arabisant teachers, who also received an exclusive French-based education in the university, but who deliver the content of their subjects in Arabic when they are recruited by entirely arabized departments (e.g. Department of Economics). Their use of French does not virtually exceed the writing of formulas and equations- a convention already established in pre-university science curricula.

---

<sup>53</sup> It would not be unsound to explain the stand of the arabisant teachers who did not approve of Arabization in the light of the *adaptive/social function* of attitudes (see section 1.3.2.3). Such teachers have probably revealed positive attitudes towards French, paralleled with negative attitudes towards Arabic, to help them bond with the francisant teachers. To put it another way, they may look for social approval, especially that French in Algeria is often associated with the 'well-educated' person.

This sends a signal saying that teachers (at least the arabisants) *can* lecture in Arabic when no choice is available. If alternatives are offered, using Arabic depends on the teacher's *want* (this of course does not exclude that linguistic abilities/bilinguality differs from one person to another).

For those who claimed to be able to use Arabic in lecturing, the chief difficulty lies, according to the results, in the equivalent Arabic scientific terminology. The point which should be stressed is that Arabic terms (at least loans) do exist, and therefore this issue should be surrounded from the angle of (i) searching for the terms (ii) and then utilizing them. The French scientific register has become an integral part of the teachers' mental lexicon because it was learned (as students) and then well-established through frequent usage (as teachers). Its equivalent Arabic register also requires learning and practice at the same time; knowledge of the terms without practice is more likely to introduce situations in which the bilingual faces severe *momentary* lexical gaps- difficulty to call the linguistic items back from memory- which subsequently force him/her to rely on code-switching as a compensational strategy.

Aside from linguistically proficient teachers, the availability of basic teaching and learning materials is another equally important prerequisite in a language in order to be used in instruction. References to which learners and teachers refer back constitute the bedrock on which many respondents built their disapproval of the Arabization of sciences. This made it a necessity to question whether Arabic scientific references are truly scarce or this only is an overt reason behind which teachers hide a rejection of Arabization. Though this was not probed in details, evidence was not hard to furnish. A number of scientific (and technological) institutions countrywide offer the same syllabus of, for example, biology in Arabic. As one instance, among many others, the Department of Biology in Constantine University adopts a linguistic policy characterized by a gradual switch in the language of instruction. Many content subjects are delivered in Arabic (with extensive use of French terminology) during the first and second years. Exclusive use of French only begins at the third year.

In the same vein, by the late 1990s, the arabized section juxtaposed the French section at the Department of Biology in Oran University; they shared the same syllabus. The students had the option to choose what best fits them. Many students opted for the arabized section until its closure by the late of the first decade of the current millennium. Further, many Arabic-speaking countries have already generalized the use of Arabic in all domains, and Arabic is the language of instruction since the primary school up to graduation from the university. In Syria, as one leading instance, sciences (including medicine) are offered exclusively in Arabic. The point behind mentioning such instances is that if Arabic is a medium of instruction, it must be a medium of publication. In fact, many teachers throughout the Arab World produced prolifically in Arabic.

Therefore, it is not unsound to argue that reading materials are not available in Arabic; they actually are accessible to the extent that students cannot fall short at least during the graduation levels<sup>54</sup>. The problem of references might be addressed more around the quality of Arabic references. This does not translate that such Arabic-composed materials are of low quality because many of them are only arabized (translated) from other languages.

Then, even if references make the first issue upon which Arabization is disfavoured, it is of significance to remember that teachers also perceived French a 'language of the classroom' or 'a language of teaching' rather than a 'language of profound research'- English forms the main supply from which they translate. This gives clues that the issue of references concerns either language though it is probably more pronounced in Arabic. Building objection to Arabization on the basis of shortage in references, though it is legitimate when it is true, can be considered from a different standpoint. In fact, the inference which can be drawn is that teachers do not see their role as policy-makers, i.e., active actors who can contribute and participate in the embodiment of Arabization. They indirectly, perhaps

---

<sup>54</sup> The site where this research was conducted provided evidence that some postgraduate students, especially those coming from other Arabic-countries where French is not the first foreign language like Yemen, composed their Magister or Doctorate thesis in Arabic. The bibliographies include a great number of Arabic references.

unintentionally, presented themselves as passive recipients who consume what the others produce. This is only made on the basis that a clear majority of them admitted to be keen on lecturing in Arabic: the ability of an *educated* person to use a language orally normally implies a capacity to write in that language (though writing requires stylistic considerations).

Although 59 % of the teachers (see table 4.15, item 15) concurred that every teacher should normally partake in the Arabization policy by providing an Arabic version of his French-written research material (articles, manuals, etc), this remains a notional agreement which lacks incarnation. This assertion builds on the interview findings which illustrated that none of the teachers produces in, or translates into, Arabic. Again, teachers afforded weak reasons which strengthen that their (majority) covert attitudes towards Arabization remain largely negative. If the problem of references is less pronounced in the French language, this is partly attributed to the dynamicity of translation services in some French-speaking countries, especially France and Francophone Canada. These developed countries are not only translators but also producers of sciences; researchers, like those participating in this study, are also indirect contributors when they produce their research papers in French.

To sum up, it is necessary to point at the limitations of the measurement approach used in this study (direct method), and therefore how much overt positive attitudes towards Arabization match covert attitudes is open to discussion. Because such self-reports (interview and questionnaire data) are of arguable strength (Fasold, 1987), and due to the fact that the (language) attitude is an *internal* state of readiness, implicit attitudes can only be inferred from observable behaviour. Although congruence between attitude and behaviour is subject to debate (see section 1.3.2.4), the mentalists insist that attitudes drive behaviour, or at least, as Holland *et al.* (2002) put forward, strong attitudes guide behaviour while weak attitudes follow behaviour. If this is the case, it is possible to gauge teachers' covert attitudes in that these are supposedly mediated by their linguistic behaviour. If no consistency holds between the overtly-stated positive attitudes and the visible

behaviour, then these attitudes might strongly be considered explicit which are not automatically real. In fact, accepting Arabization speculatively, though is a necessity for successful implementation, does not translate straightforwardly to eagerness to engage in concrete contribution.

As far as the macro level (in Algeria) is concerned, there is no jurisprudence which states that French should be used as MI. The truth is that there are legislative measurements that impose Arabic as MI; suffice it to mention that the law of January 1991, which was reinstated in December 1996, defined July 5<sup>th</sup> 2000 as the date for generalizing Arabic in education, including the university (still on hold). Therefore, one may argue with poise that French is perpetuated in sciences and technology fundamentally on the ground of the teachers' *want*. Subsequently, if science teachers were truly convinced of the workability of Arabization, they would have taken steps towards actual implementation. Other fields, such as sociology, anthropology, economics, commerce, to name but a few, have all been entirely arabized in the different universities countrywide because teachers were willing actors (either as policy makers or policy implementers). The University of Bejaia (Kabylia region), which actually forms the exception, still offers all the fields (literary, scientific and technological) exclusively in French to the exclusion of the departments of Law and Arabic which are wholly arabized<sup>55</sup>. If Arabization did not cover such institution of higher education, this is mainly because the (majority of) teachers were not eager to accept, and participate in, the making/implementation of Arabization (explanations for the rejection of Arabization in this instance requires socio-political considerations, see section 2.4). This reflects the importance of teachers' willingness in the making (as micro agents) and/or implementation (of macro legislation) of policies.

---

<sup>55</sup> Arabic is the medium of instruction in the Department of Law because of the existence of a political decree which allows no language other than Arabic in the court. In fact, the judicial system is the one which was completely arabized. Although the military system has also been largely arabized, military schools still basically rely on French in the academic formation of officers.



In the site where this research was conducted, a few teachers rely, partly or solely, on Arabic to deliver content subjects, especially when they teach first year students. Some of them lecture extensively in Arabic during the first semester and gradually switch to French as students advance in their studies. Some others use only Arabic to deliver the annual syllabus<sup>56</sup>. If these teachers reveal positive attitudes towards Arabization, it is less problematic to judge that they expressed real attitudes in that their observable linguistic behaviour matches the attitude, i.e., positive attitudes are coupled with concrete use of Arabic. Even in such cases the intricacy is that using Arabic with students might be for a particular end (e.g. achieving maximum understanding) without necessarily having a positive attitude towards this language. Those who use no Arabic with their students inside the classroom, especially when they are linguistically able, and/or refuse the use of Arabic on the part of the learners, make the situation extremely difficult to judge their implicit attitudes even if they overtly demonstrate positive attitudes as the behaviour does not match the attitudes. It goes without saying that although “linguistic attitudes [...] can be a powerful force in influencing linguistic behaviour [...] One has to bear in mind of course that speakers are quite capable of saying one thing and doing another” (Davies, 1995:23).

The fact that no top-down linguistic law or regulation imposes the exclusive use of French to teach sciences leads to the conclusion that the agency of language planning resides in the micro level, i.e., teachers in the institution under study are the major actors in the making of the language policy. This is strong evidence that teachers cannot always be implementers of above-initiated laws; they can actually be policy-makers. This goes in accordance with the point raised by Mohanty *et al.* (2010: 228) arguing that “[t]eachers are not uncritical bystanders passively acquiescent of the state practice; in their own ways, they resist and contest the state policy [...]. It is quite clear that the agency of the teachers in the classrooms makes them the final arbiter of the language education policy and its implementation.”

---

<sup>56</sup> There are at least two teachers who lecture exclusively in Arabic: a teacher of physics who was among the interviewees in this study, and another teacher who used to teach via English in Saudi Arabia.

## 4.5 Conclusion

The current language education policy characterized by an unplanned switch in the medium of instruction does not serve the learners who, after many years of an Arabic-based education, find themselves suddenly plunged in an entirely different learning environment characterized by the exclusive use of French. As such, it is no wonder that they expressed positive attitudes towards the Arabization of sciences. However, the implementation of Arabization bets on the agency of teacher whose majority have expressed, either explicitly or implicitly, negative attitudes towards such initiative. If the end is to meet the learners' needs, a top-down imposition of Arabic might be one solution. However, this will be at the expense of the teachers' want. It is worth mentioning that political coercion to use a language which teachers do not master, or simply do not like to use, will have negative repercussions on teachers and learners alike. In fact, the country cannot afford to lose her elites. If their attitudes are not taken into account, then these teachers are at risk for either leaving Algeria through the 'brain drain' or failing out of university due to their inability (or unwillingness) to keep up in an Arabic-driven higher education system. As such, the making and the implementation of Arabization, like any other language policy, must take account of the recommendations of, for example, Lewis (1981) who observes that " [i]n the long run, no policy will succeed which does not do one of three things: conform to the expressed attitudes of those involved; persuade those who express negative attitudes about the rightness of the policy; or seek to remove the causes of the disagreement. In any case, knowledge about attitudes is fundamental to the formulation of a policy as well as to success in its implementation" (p.262). A number of recommendations, which may help rationalize linguistic issues in education, will be presented in the general conclusion.

## GENERAL CONCLUSION

Language education policy in Algeria, like most other Arabic-speaking countries, is of a murky nature. Because Arabic-speaking nations being characterized with diglossia, Arab children acquire the (regional) dialect as their mother tongue. Then, at school, they have to cope with the learning situation based on the H variety. After a long contact with this form of Standard Arabic, they are faced with a sudden switch in the medium of instruction at the university level when they enroll in scientific, medical or technological institutions where teaching is primarily/solely based on a foreign language, namely French (in our case) or English (e.g. the Middle East). A state of such a kind is forcibly strong enough to attract the attention of researchers from a great many disciplines, not least education, psychology, sociology, politics and linguistics.

The ultimate end of this research was to examine the possibility to arabize sciences in higher education. However, the research has not considered all conditions required in a language to serve as medium of instruction. For example, the availability of quality scientific reading materials in Arabic was not probed in details. Driven by a socio-psychological orientation, the research has focused on the attitudes of teachers and students towards the implementation of Arabization, as both of them are directly concerned with any possible language legislative measure that may take place in the future. It goes without mentioning that (successful) language policies build partially on the attitudes of the community in question before the implementation stage.

This dissertation began with a theoretical chapter which circles the main concepts and the relevant literature to allow the reader to understand the subject matters of language planning and policy, language attitudes, and the important intertwined relationship between the two. Then, it moved to the sociolinguistic situation in Algeria and its current linguistic policy. While reviewing Arabic, the discussion primarily concerned diglossia and the negative impact it engenders on quality education. Building on the reality that Dialectal Arabic is the genuine mother tongue of Arab children, many calls were/are voiced to use such a variety in

schools at the cost of, or in parallel with, Standard Arabic. Although such old enterprise has long been encouraged, all previous efforts proved to be in vain. In fact, promoting the vernacular is no easy task as it requires a whole language standardization process, the steps of which are not without complications, including the hard task of homogenisation of the various Arabic regional dialects. Besides linguistic constraints, the vernacular is socially downgraded, and any attempt to introduce it in schools would receive strong social rebuff; this is often interpreted as a 'plot' against the 'sacred' language, i.e. Standard Arabic. As such, a procedure that works the other way round is probably the best/only alternative to get around the diglossic issue in education. In other words, children must be introduced to the literary language as young as possible (before the school-age) so as to ensure natural acquisition of, or at least maximum familiarization with, this variety.

As for minority's linguistic rights, Tamazight has made a noteworthy step onward. Old demands for recognition could be finally met, and it is now (as of February 2016) a 'joint-official' language alongside Arabic. However, behind the status, Tamazight still faces serious challenges at the other three planning dimensions. In terms of corpus planning, the language is still undergoing a development process. The orthographic representation remains a controversial, unsolved question in the light of the persistence of three proposals: Arabic, Latin and Tifinagh alphabets. As for acquisition planning, Tamazight is no other than an elective course which fails to attract the attention outside its native borders. Subsequently, prestige/image planning efforts are required to foster positive attitudes as Tamazight still misses the instrumentality value of a language, a sound reason behind disinterest of the important Arabophone population in learning such a language.

As far as French is concerned, its *de jure* status does not match the *de facto* status. Although it is politically considered as a foreign language, French is linguistically omnipresent in all walks of life, ranging from services of the central government to day-to-day linguistic practices among individuals. Suffice it to

mention that it is still the dominant, even exclusive language in scientific, medical and technological institutions of higher education.

The third chapter was devoted to the methodology underlying the case study which was conducted to provide answers for the research questions and to confirm or nullify the proposed hypotheses. The study was undertaken in the Faculty of Biology and Geology at Tlemcen University, Algeria, where a sizeable sample population could be covered. As for data elicitation techniques, the study relied on the mixed methods approach in which classroom observation, semi-structured interviews and closed-ended questionnaires were employed. Interpretably, attitudes were *directly* measured (direct approach). With the intention to meet the standards of reliability and validity, the research variables were cross-checked not only using different instruments but also from different resources (teachers and students).

The data, which were analysed qualitatively and quantitatively, yielded important conclusions. Regarding the first research question, the findings revealed a glaring truth in the sense that the abrupt switch in the medium of instruction, from only-Arabic to only-French, has severe repercussions on the learners enrolled in scientific fields. The difficulty is manifested in their low understanding attainment of the lectures, inert role in the classroom, the intricacy to comprehend scientific reading materials, and the challenging task of composing in French. Of course, such difficulties involve negative outcomes on their academic achievement and performance in exams. If students are found to grapple with the learning situation, this is partially, if not chiefly, due to their stark incompetence in French. Although they have learned French since the third grade (primary school) until their leave of the secondary school, they still largely identify as unbalanced, passive bilinguals who do not yet possess the necessary language skills (cognitive academic language proficiency, or CALP) that help them learn efficiently. Therefore, it becomes almost normal that learning sciences in a language which they do not fully master introduces an arduous learning context which require higher cognitive load as they have to cope concurrently with language learning and content learning.

As far as students' language attitudes are concerned, the interview and the questionnaire results exposed a great deal of homogeneity and no significant mismatch could be captured. Attitudes towards Arabic and French as media of instruction (same level of specificity) were largely in favour of Arabic. A clear majority of the students strongly revealed positive attitudes towards the use of Arabic to deliver content subjects, hence the Arabization of sciences. In parallel, they complained about the exclusive use of French. However, Arabic and French, as world languages (another level of specificity), do not enjoy the same level of prestige as French is more valued than Arabic.

In fact, students' attitudes towards either language can be explained in the light of the *functional theory* which attributes 'attitudes formation' to psychological needs. On the one hand, Arabic as a medium of instruction is appreciated and, in turn, French is disapproved as the former is the language the students are most comfortable with, whereas the latter does not meet (at least in the initial stage) their learning needs (less comprehension, higher cognitive load, etc). Although such attitudes are largely defined by (in)competence in either language, religion and identity are also strong factors that determine students' attitudes. On the other, the high prestige attributed to French was found to build basically on non-academic considerations. In fact, French is chiefly seen as a key to social mobility (immigration).

As for teachers, they were divided with a clear majority displaying negative attitudes towards the Arabization of sciences. Some informants, who did not seek to meet socially desirable answers, revealed *overt* rejection of such a scheme. Some others expressed *covert* negative attitudes which could be captured through a disconformity in their answers. Still others were reserved and approved of the use of Arabic only under conditions, not least availability of quality reading materials. A few teachers expressed extremely positive attitudes and showed enthusiasm towards Arabization to the extent that their attitudes are reflected in their linguistic behaviour inside the classroom.

It should be noted that the teacher's pre-university educational background, i.e., Arabisant or Francisant, was not found to be a defining factor that drives the attitudes. In fact, opposition to Arabization was sometimes stronger on the part of the Arabisants. Also, most informants proclaimed to be able to lecture in Arabic, especially under political pressure. Teachers acknowledged that the use of Arabic as MI would render a number of boons to learners, but Arabic does not meet their own needs as teachers and researchers.

The fact that students' attitudes do not match teachers' attitudes makes it intricate to meet the academic needs of the former and the wants of the latter. It becomes almost impossible to put forth one satisfactory solution. Although top-down decisions might be required to arabize sciences, a procedure of such a type would not be without negative, probably severe, consequences as the implementer (i.e. the classroom teacher) does not show strong support towards such option. Fostering teachers' attitudes beforehand is one essential prerequisite, among others, for successful implementation of Arabization. In the light of the current linguistic policy followed by the faculty under investigation, like most other scientific institutions countrywide, students' attitudes remain marginal in the overall policy. The language of instruction is the one *favoured* by teachers who represent the *defining agency* around whom language education policy builds. Because students are offered no alternative other than studying in French, we offer some recommendations that may rationalize the pedagogical issue due to the medium of instruction, as listed below.

✓ The situation may best be repaired if intervention takes place at the pre-university level, and this can be done in two ways. First, probably the optimal option is to adopt a bilingual education system (return to the 1970s system). In other words, since sciences are offered in French at the university level, it would be better to teach them in French at the pre-university stages. This does not translate that Arabic should be banned. To the exclusion of scientific and technical subjects, all other content subjects must be delivered in Arabic. If such bilingual education is encouraged, the discussion will concern what model to adopt and when the

transition should be made. However, return to bilingual education is not an easy scheme as it would be faced with strong opposition from partisans of Arabization. It would also be interpreted as a failure of more than four decades of political endeavour to arabize the Algerian school. Therefore, the other recommendation relates to the foreign languages teaching policy at the pre-university stages. Though French is taught since the third grade, learners reach the university with poor command of such language. Hence, there is an urgent need to revise such a policy which fails to produce competent bilinguals who can function academically with equal ease in the foreign language.

The implementation of the above-listed recommendations remains in the hands of the Ministry of National Education. The linguistic issue must also be treated at the university level, and here the intervention may work in a top-down fashion (macro level-Ministry of Higher Education) as it may be initiated at the micro level (teachers and departments). In what ensues, we provide a number of recommendations:

✓ One way to consider students' and teachers' attitudes simultaneously is to offer two linguistically different sections: one based on Arabic as language of instruction and the other on French. Then, students will have the option to choose the section that best fits them. In fact, it is here that true attitudes towards Arabization can be captured. Teachers who overtly showed positive attitudes towards the Arabization of sciences can be invited to participate in such initiative. In fact, this is a workable scheme which was in practice in some universities countrywide (e.g. Oran University) by the end of the 1990s.

✓ Instead of implementing an abrupt switch in the medium of instruction, the transition can be gradual. It would be better to deliver lectures through Arabic during the first months provided that equivalent French terminology should be supplied. This is the way through which physics is introduced to first year learners in the site under investigation; it was found that physics is perceived to be less challenging than mathematics and chemistry which are taught exclusively in



French. In fact, using Arabic with first and second year students is the rule rather than the exception in a number of other Algerian universities, like Bechar University, Constantine University, Saida University, to name but a few. However, using Arabic as a medium of instruction requires teachers who can, and want to, lecture in Arabic. Therefore, the other equally important recommendation necessitates assigning linguistically competent teachers for students at initial stages.

✓ Imposing pre-sessional French for Academic Purposes programmes. Such intensive language courses focus basically on developing the core academic and study skills for effective learning through the medium of French. This is one way to help students settle in the new learning environment.

✓ The research findings revealed that teachers are aware of the language barrier facing the students during their beginning months or, say, years. However, the linguistic issue is not vigilantly taken into account at the administration level. Although French is taught as a subject for first year students, its teaching suffers from many deficiencies in terms of status, teachers, programmes, etc. Only two sessions a week are offered during one semester; it is replaced by English during the 2<sup>nd</sup> semester. Also, in order to teach in the faculty suffice it to hold a License degree (BA) in French as the administration basically relies on novice, part time teachers. Because no official syllabus is provided, such teachers design their own syllabus building on what they think is appropriate. But most of such syllabi are not carefully crafted to meet the needs of science students who need to develop a scientific register and not only grammar rules and sentence structure. It seems that the hope builds on the time-depth factor in the sense that there is a widespread belief among the faculty authorities that extensive and exclusive use of French to teach the different subject matters is likely to forge students' linguistic proficiency in the short run. This is actually an approach to language teaching known as 'content-based instruction' (CBI) which integrates language and content teaching. But CBI has its requirements that are not all covered in our research site. Recall that students have already passed through an experience of ten years studying French as a foreign language, and which could not enable them to act academically.

Therefore, scientific departments are urged to recruit qualified and specialized teachers (French for specific purposes). Furthermore, the status of French in the faculty should be revised. Instead of introducing it as a secondary (though compulsory) subject, French must have an equally significant coefficient just like other main content subjects (e.g. biology, chemistry, etc). This is a way to attract learners' attention who usually skip French classes without being effectively excluded.

✓ Orientation towards scientific fields, like other disciplines which still use French as MI, should not build solely on the general average of the Baccalaureate exam; the grades in French (as subject) in the pre-university stages, or at least Baccalaureate exam, must also be taken into account. Although this may sound illogical in the sense that many academically competent students reach the university with low grades in foreign languages, it still serves two ends. (i) If the linguistic criterion is included in university orientation, this would trigger learners' interest in French at the pre-university levels. (ii) This also makes it possible to avoid high ratio of failure at the university due to French.

✓ Material developers, including teachers, are required to supply bilingual (or trilingual) glossaries (Arabic-French-(English)) in different content subjects that the students meet during their higher education, such as cell biology, biochemistry, microbiology, agronomy, etc. Besides their academic importance, such documents are aids for linguistically incompetent students.

✓ From the interview data, it could be concluded that some teachers neither code-switch nor tolerate it on the part of students. The teachers' justification was that frequent switching to Arabic makes students slow in learning French as they may be habituated to teachers' support. There is no space here to list the benefits of code switching. However, Gumperz (1982b), a leading authority in code-switching research, retains that a teacher can use the learner's first language as a code for encouragement (affective function). Out of his research in the College of Health Sciences in Kuwait University where English is used as MI, Alenezi (2010)

reports that a clear majority of students (82.35%) favoured Arabic/English code switching to the sole use of English in science classes. Therefore, we put forth that since focus in sciences is on content, not on language leaning, teachers are encouraged to alternate between Arabic and French, especially when the students go blank.

In the process of collecting and analysing the data, we have come across interesting facts for further investigation. For example, students, and most especially teachers, showed their need of English. It was made clear that French does not serve the researcher when engaged in profound studies in the sense that the important literature is only available in English. They even stressed the point that if any change in the linguistic policy is to be introduced, it should be oriented towards an English-based education. The point is that none of the teachers who participated in the study was found to master English. In fact, measures to replace French by English were undertaken by the mid 1990s when school-children were given the option to choose between English and French in the primary school. Such initiative was abolished after a short experience. However, one would confidently argue that there is no point in replacing French by English in the pre-university stages as long as French retains its position as the dominant medium of instruction in medical, scientific and technological fields. Without university teachers who fully master English, a transition of such a kind is doomed to fail. It implies that any change in the language education policy towards Arabization or Anglicization bets on teachers. In the site under study, teachers are the *policy-makers* and not the policy-implementers.

## **BILIOGRAPHY**

- Abu-Rabia, S. (2000). Effects of exposure to literary Arabic on reading comprehension in a diglossic situation. *Reading and Writing: An Interdisciplinary Journal*, 13(1-2), 147-157.
- Achab, R. (1984). *Amawal n tusnakt*, Tafsut. Serie Pédagogique et scientifique, 1. Tizi Ouzou.
- \_\_\_\_\_ (1991). Problèmes de néologie berbère, remarques sur l'Amawal. *Etudes et documents berbères*, 8, 97-111.
- Adèr, H.j., Mellenbergh, G.J., & Hand, D.J. (2008). *Advising on research methods: A consultant's companion*. Johannes van Kessel Publishing, the Netherlands.
- Ager, D. (2001). *Motivation in language planning and language policy*. Clevedon: multilingual Matters.
- \_\_\_\_\_ (2005). Prestige and image planning. In E. Hinkel (ed.), *Handbook of Research in Second Language Teaching and Learning* (pp. 1035–54). Mahwah, NJ: Erlbaum.
- Agheyisi, R. & Fishman, J. A. (1970). Language Attitude Studies: A Brief Survey of Methodological Approaches. *Anthropological Linguistics*, 12(5),137-157.
- Aitsiselmi, F. (2001). Some cultural and linguistic issues in the standardization of Tamazight in Algeria. *The Linguistic Association of Korea Journal*, 9(1), 73-94.
- Aitsiselmi, F., & Marley, D. (2008). The role and status of the French language in North Africa. *Studies in French applied linguistics. Language Learning & Language Teaching*, 21 (6), 185-222.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg: Springer.
- \_\_\_\_\_ (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84, 888-918.
- Al-Batal, M. (1995). Issues in the teaching of the productive skills in Arabic. In M. Al-Batal (ed.), *The teaching of Arabic as a foreign language: Issues and directions* (pp.115-133). Provo, Utah: American Association of Teachers of Arabic.

- Alenezi (2010), A.A. Students language attitudes towards using code-switching as a medium of instruction in the college of health sciences: An exploratory study. *ARECLS*, 7 (1), 1-22.
- Alidou, H. (2009). Promoting multilingual and multicultural education in Francophone Africa: challenges and perspectives. In B. Brock-Utne & I. Skattum (eds.), *Languages and education in Africa: a comparative and transdisciplinary analysis* (pp.105-131). Didcot, UK: Symposium Books.
- Alosh, M.M. (1989). *Student Manual for Individualized Instruction: Elementary Arabic 1, Ahlan wa Sahlan, An Introductory Course for Teaching Modern Standard Arabic to Speakers of Other Languages*. Columbus, OH: The Ohio State University Foreign Language Publications No. 81.
- Amir, N. (2002). Tamazight: L'enseignement en régression. *El Watan*, July 16, p.2.
- Aronson, E., Wilson, T.D., & Akert, R. M. (2007). *Social Psychology* (6<sup>th</sup> ed.). Garden City, NJ: Prentice Hall
- Ayari, S. (1996). Diglossia and illiteracy in the Arab world. *Language, Culture and Curriculum*, 9, 243-252.
- Babbie, E., & Mouton, J. (2006). *The Practice of Social Research*. South African Edition. Oxford University Press Southern Africa: Cape Town.
- Baker, C. (1992). *Attitudes and Language*. Clevedon, Philadelphia, Adelaide: Multilingual Matters.
- \_\_\_\_\_ (2001). *Foundations of Bilingual Education and Bilingualism* (3<sup>rd</sup> ed.). Multilingual Matters.
- \_\_\_\_\_ (2006). *Foundations of Bilingual Education and Bilingualism*. Multilingual Matters LTD.
- Baker, T.L. (1994). *Doing Social Research* (2<sup>nd</sup> ed.). New York: McGraw-Hill Inc.
- Baldauf, Jr, R. B. (1994). 'Unplanned' language policy and planning. In Grabe, W. et al.(Eds.), *Annual Review of Applied Linguistics: Language Policy and Planning* (pp. 82-89). New York:Cambridge University Press.
- \_\_\_\_\_ (2004). Micro language planning. In D. Atkinson, P. Bruthiaux, W. Grabe and V. Ramanathan (Eds), *Studies in applied linguistics: English for academic purposes, discourse analysis, and language policy and planning* (Essays in honor of Robert B. Kaplan on the Occasion of his 75th Birthday). Clevedon: Multilingual Matters.
- \_\_\_\_\_ (2005a). Language planning and policy research: An overview. In E. Hinkel (ed.), *Handbook of Research in Second Language Teaching and Learning* (pp. 957-70). Mahwah, NJ: Erlbaum.
- \_\_\_\_\_ (2006). Rearticulating the case for micro language planning in a language ecology context. *Current Issues in Language Planning*, 7 (2&3), 147-170.

- Bamgbose, A. (1991). *Language and the nation. The Language Question in Sub-Saharan Africa*. Edinburgh: Edinburgh University Press.
- Banaji, M.R. & Heiphetz, L. (2010). Attitudes. In S.t. Fiske, D.T. Gilbert, & G. Lindzey (Eds.), *Handbook of Social Psychology* (pp.348- 388). New York, NY: John Wiley & Sons.
- Barbour, S., & Carmichael, C. (2000). *Language and nationalism in Europe*. Oxford University Press.
- Barton, P., & Barton, B. (2005). The Relationship Between English Language and Mathematics Learning for Non-native Speakers. *International Journal of Mathematical Education*, 36(7), 721-729.
- Bektache, M. (2013). Représentations sociolinguistique et dénomination des dialectes Berbères en Algérie. *Studii de gramatică contrastivă*, 19, 33-53.
- Belmechri, F., & Hummel, K. (1998). Orientations and motivation in the acquisition of English as a second language among high school students in Quebec City. *Language Learning*, 48(2), 219–244.
- Bem, D. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp.1–62). New York, NY: Academic Press.
- Benmoussat, S. (2003). *Mediating Language and Culture: An Investigative Analysis of the Cultural Dimension in the Algerian Newly-Designed ELT Textbooks*. Unpublished Doctorate Thesis. Tlemcen University.
- Benrabah, M. (1999). *Langue et pouvoir en Algérie. Histoire d'un traumatisme linguistique*. Paris: Séguier.
- \_\_\_\_\_ (2002). Ecole et plurilinguisme en Algérie: un exemple de politique linguistique éducative "négative". *Education et Sociétés Plurilingues*, 13, 73- 80.
- \_\_\_\_\_ (2004). Language and Politics in Algeria. *Nationalism and Ethnic Politics*, 10 (1), 59-78
- Bensafi, Z. (2002). Bilingualism in Algeria and the making of the nation. *Second International Symposium on Bilingualism*, University of Vigo, Vigo October 2002.
- Benson, C. (2004). Bilingual schooling in Mozambique and Bolivia: From experimentation to implementation. *Language Policy*, 3(1), 47-66.
- Biber, H. (2005). *The Ethics of Social Research*. London: Longman.
- Bird, E., & Welford, G. (1995). The effect of language on the performance of second-language students in science examinations. *International Journal of Science Education*, 17(3), 389-397.

- Blanc, H. (1960). Stylistic variation in spoken Arabic: A sample of interdialectal educated conversation. In R. S. Harrell (ed.), *A linguistic analysis of Egyptian radio Arabic* (pp.81-161). Cambridge: Harvard University Press.
- Blum, D. (2002). Sprache und Politik : Sprachpolitik und Sprachnationalismus in der Republik Indien und dem sozialistischen Jugoslawien (1945-1991). *Beiträge zur Südasienforschung* , 192. Würzburg: Ergon
- Bogdan, R.C., & Biklen, S.K. (2006). *Qualitative research for education: An introductory to theory and methods* (5<sup>th</sup> ed.). Needham Heights, MA: Allyn and Bacon.
- Bohner, G. & Wänke, M. (2002). *Attitudes and Attitude Change*. Psychology Press.
- Bouchard, T.J. Jr. (1976). Unobtrusive measures: An inventory of uses. *Sociological Methods and Research*, 4, 267-300.
- Boukous, A. (2004). La standardisation de l'amazighe : quelques prémisses. In Aneur & Boumalk (ed.), *Standardisation de l'amazighe* (pp.11-22). Rbat, El Maârif Al Jadida.
- Bourhis, R. Y. (1983). Language attitudes and self reports of French-English language usage in Quebec. *Journal of Multilingual and Multicultural Development*, 4, 163-179
- Bourhis, R.Y. (ed.). (1984). *Conflict and language planning in Quebec*. Clevedon: Multilingual Matters.
- Bourhis, R.Y., & Maass, A. (2005). Linguistic prejudice and stereotypes. In U. Ammon, N. Dittmar, K.J. Mattheier, & P. Trudgill (eds.), *Sociolinguistics : An International Handbook of the Science of Language and Society* (2<sup>nd</sup> ed). Berlin and New York : Mouton de Gruyter.
- Bowers, J. (1968). Language problems and literacy. In J.A. Fishman, C. Ferguson, & J. Das Gupta (eds), *Language Problems of Developing Nations* (pp 381-401). New York: John Wiley & Sons.
- Bouzefrane, S. (1996). *Lexique d'informatique berbère-français-anglais*. l'Harmattan (Paris).
- Bradley, D. (2012). Science of Language Policy and Planning. *The Encyclopedia of Applied Linguistics*.
- Bromley, D.B. (1986). *The case-study method in psychology and related-disciplines*. Chichester: John Wiley & Sons.
- Burns, N., & Grove, S. (2003). *The Practice of Nursing Research Conduct, Critique and Utilization* (4<sup>th</sup> ed.). W. B. Saunders: Philadelphia. USA.



- Campbell, D.T. (1947). *The Generality of a Social Attitudes*. Doctoral Dissertation, University of California, Berkeley.
- Campbell, D., & Fiske, D. (1959). Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix. *Psychological Bulletin*, 56, 81-105.
- Campbell, D.T., & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research*. Boston: Houghton Mifflin.
- Chaker, S. (1989). *Berbères aujourd'hui*. L'Harmattan, Paris.
- \_\_\_\_\_ (2002). Codification des langues de France. Actes du Colloque : *Les langues de France et leur codification: écrits divers, écrits ouverts*. INALCO/DGLFLF), Paris, L'Harmattan, en collaboration avec D. Caubet & J. Sibille.
- \_\_\_\_\_ (2004). Berber: a "long-forgotten" language of France. *Language and (Im)migration in France, Latin America, and the United States: Sociolinguistic Perspectives*. Conference at the University of Texas at Austin, September 25-26, 2003.
- Chambers, G.N. (1999). *Motivating language learners*. Clevedon: Multilingual Matters.
- Chambers, J. K. & Trudgill, P. (1998). *Dialectology* (2<sup>nd</sup> ed.). Cambridge University Press.
- Chamot, A.U. (1981). *Applications of Second Language Acquisition Research to the Bilingual Classroom*. Wheaton, MD: National Clearinghouse for Biligual Education.
- Chamot, A.U., & O'Malley, J.M. (1986). *A cognitive academic language learning approach: An ESL content-based curriculum*. Washington, DC: National Clearinghouse for Bilingual Education.
- Chanda, A., & Shen, J. (2009). *HRM strategic integration and organizational performance*. New Delhi: SAGE Publications India.
- Chartrand, T.L., & Bargh, J.A. (1999). The Chameleon Effect: The Perception-Behavior Link and Social Interaction. *Journal of Personality and Social Psychology*, 76, 893–910.
- Chemakh, S. (2007). L'Aménagement de tamazight (milieu algérien): Etat des lieux, critiques et propositions. *CNPLET/MEN, 1<sup>er</sup> colloque international sur l'aménagement de tamazight*, Sidi Fredj, 2007.
- Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73–96). New York, NY: Guilford Press.
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge, Massachusetts: MIT Press.

- Clark, A. & Trafford, J. (1995). Boys into modern languages: An investigation of the discrepancy in attitudes and performance between boys and girls in modern languages. *Gender and Education*, 7, 315-325
- Clyne, M. (1992). Language Planning. In W. Bright (ed.), *Encyclopedia of Linguistics* (pp. 84-86). Oxford University Press.
- \_\_\_\_\_ (1997a) (ed.). *Undoing and redoing corpus planning*. Berlin: Mouton de Gruyter. pp. viii + 516.
- Cobarrubias, J. (1983). Ethical issues in status planning. In Cobarrubias, J. & Fishman, J. A. (eds.), *Progress in language planning: International perspectives* (pp. 41-86). Berlin: Mouton.
- Cochran, J., McCallum, R.S., Bell, S.M. (2010). Three A's: How Do Attributions, Attitudes, and Aptitude Contribute to Foreign Language Learning? *The American Council on the Teaching of Foreign Languages*, 2010, 566-582.
- Cohen, A. (1974). Mexican-American evaluation judgements about language varieties. *International Journal of the Sociology of Language*, 3, 33-52.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education* (6<sup>th</sup> ed.). Routledge, New York.
- Condorcet. J.A.N. (1988). *Esquisse d'un tableau historique des progrès historique de l'esprit humain*. Paris: GF Flammarion.
- Cooper, R. L. (1989). *Language Planning and Social Change*. New York: Cambridge University Press.
- Creswell, J. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3<sup>rd</sup> ed.). Upper Saddle River, NJ: Pearson Education.
- Crystal, D. (1997). *A Dictionary of Linguistics and Phonetics* (4<sup>th</sup> ed.). UK: Blackwell.
- Cummins, J. (1980). Psychological assessment of immigrant children: Logic or intuition? *Journal of Multilingual and Multicultural Development*, 1, 97-111.
- \_\_\_\_\_ (1981a). *Bilingualism and minority language children*. Toronto: Ontario Institute for Studies in Education.
- \_\_\_\_\_ (1984). Wanted: A Theoretical Framework for Relating Language Proficiency to Academic Achievement among Bilingual Students. In C. Rivera (ed.), *Language Proficiency and Academic Achievement*. Clevedon: Multilingual Matters.
- \_\_\_\_\_ (1982). *Tests, achievement, and bilingual students*, Focus, No.9. Arlington, VA: National Clearinghouse for bilingual education.
- \_\_\_\_\_ (1989). *Empowering minority students*. Sacramento: California Association for Bilingual Education.

- \_\_\_\_\_ (1991). Language Development and Academic Learning Cummins. In L. Malave & G. Duquette (ed.), *Language, Culture and Cognition* Clevedon: Multilingual Matters.
- Dakwar, R. K. (2005). Children's attitudes towards the diglossic situation in Arabic and its impact on learning. *Languages, Communities, and Education*, 2005, 75-86.
- Davies, W. (1995). *Linguistic variation and language attitudes in Mannheim-Neckarau*. Stuttgart: Franz Steiner Verlag.
- Dekkers, O.M., von Elm, E., Algra, A., Romijn, J. A., & Vandenbroucke, J.P. (2010). How to assess the external validity of therapeutic trials: a conceptual approach. *International Journal of Epidemiology*, 39 (1), pp. 89–94, 2010.
- De Vaus, D.A. (1993). *Surveys in Social Research* (3<sup>rd</sup> ed.). London: UCL Press.
- Denzin, N.K. & Lincoln, Y.S. (2003a). *The Landscape of Qualitative Research: Theories and Issues*, (2<sup>nd</sup> ed). London: Sage Publications.
- Denzin, N.K. & Lincoln, Y.S. (2005b). Introduction: The discipline and practice of qualitative research. In N.K. Denzin & Y.S. Lincoln. (eds.), 3rd ed. *The SAGE Handbook of Qualitative Research* (pp.1-32). London: Sage.
- Deumert, A. (2000). Language planning and policy. In R. Mesthrie, J. Swann, A. Deumert & W.L. Leap (eds.), *Introducing sociolinguistics* (pp. 384-418). Edinburgh: Edinburgh University Press.
- Djennane, T. (2014). Diglossia's Stability in the Arab World: Algeria as an Instance. *OSR Journal Of Humanities And Social Science*, 19(11), 52-56.
- Dörnyei, Z. (1990). Conceptualizing Motivation in Foreign-Language Learning. *Language Learning*, 40(1), 45-78.
- \_\_\_\_\_ (2003). *Questionnaires in Second Language Research. Construction, Administration, and Processing*. Lawrence Erlbaum Associates, Inc.
- Dörnyei, Z., Csizér, K., & Németh, N. (2006). *Motivation, language attitudes and globalisation: A Hungarian perspective*. Clevedon, England: Multilingual Matters.
- Dourari, A. (2011b). L'enseignement de tamazight en Algérie : contexte sociopolitique et problématique d'aménagement linguistique. *International Journal of Languages and Linguistics*, Marocco.
- Dourari, A., Akbal-Ibri, S., Imarazen, M., Sabri, M., Berdous, N., & Chemakh, S. (2008). *Etude du profil des enseignants de tamazight des wilaya de Béjaia, Bouira, Boumerdés et Tizi-Ouzou*. Cnplet.

- Dovidio, J. F., & Fazio, R. H. (1992). New technologies for the direct and indirect assessment of attitudes. In J. Tanur (Ed.), *Questions about survey questions: Meaning, memory, attitudes, and social interaction* (pp.204–237). New York: Russell Sage Foundation.
- Drew, C.J., & Hardman, M.L. (2007). *Intellectual disabilities across the lifespan* (9th ed.). Upper Saddle River, NJ: Merrill.
- Drolet, A.L., & Morris, M.W. (2000). Rapport in Conflict Resolution: Accounting for How Face-to-Face Contact Fosters Mutual Cooperation in Mixed-Motive Conflicts. *Journal of Experimental Social Psychology*, 36, 26–50.
- Dyers, C. & Abongdia, J. (2010). An exploration of the relationship between language attitudes and ideologies in a study of Francophone learners of English in Cameroon. *Journal of Multilingual and Multicultural Development*, 31(2), 119-134.
- Eagley, A., & Chaiken, S. (1993). *The Psychology of Attitudes*. London: Harcourt Brace College Publishers.
- \_\_\_\_\_ (2005). Attitude research in the 21st century: The current state of knowledge. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp.743-767). Mahwah, NJ: Lawrence Erlbaum Associates.
- Echevarria, J., Vogt, M.E., & Short, D. (2004). *Making content comprehensible for English learners: The SIOP model* (2<sup>nd</sup> ed.). Boston: Pearson Allyn & Bacon
- Edwards, J. (1985). *Language, Society and Identity*. Oxford: Blackwell.
- \_\_\_\_\_ (1994). *Multilingualism*. London: Routledge
- \_\_\_\_\_ (2004). Bilingualism: Contexts, constraints, and identities. *Journal of Language and Social Psychology*, 23(1), 135–141.
- Edwards, V. (2001). Community languages in the United Kingdom. In Extra, G. & Gorter, D. (eds.), *The Other Languages of Europe: Demographic, Sociolinguistic and Educational Perspectives* (pp.243-260). Clevedon: Multilingual Matters.
- El Aissati, A. A. (2005). Socio-historical Perspective on the Amazigh (Berber) Cultural Movement in North Africa. *Afrika Focus*, 18 (1-2), 59-72
- Ennaji, M. (1997). The Sociology of Berber Berber: change and continuity. *International Journal of the Sociology of Language* 123, 23- 40.
- \_\_\_\_\_ (2005). *Multilingualism, Cultural Identity, and Education in Morocco*. Springer.

- Eviatar, Z., & Ibrahim, R. (2000). Bilingual is as bilingual does: Metalinguistic abilities of Arabic-speaking children. *Applied Psychology*, 21(4), 451-471.
- Fasold, R. (1984). Language attitudes. In R. Fasold (ed.), *The sociolinguistics of society* (pp.147–179). Oxford: Blackwell.
- \_\_\_\_\_ (1987). *The Sociolinguistics of Society*. Oxford: Blackwell Publishing.
- Fazio, R. H. (1986). How do attitudes guide behavior?. In R. M. Sorrentino, & E. T. Higgins (Eds), *Handbook of Motivation and Cognition: Foundations of social behavior* (pp.204-243). New York, NY: The Guilford Press.
- Fennell, J. L. I. (1981). *Textology as a Key to the Study of Old Russian Literature and History*. Ams Press.
- Ferguson, C.A. (1968). Language development. J.A. Fishman, C. Ferguson, & J. Das Gupta (eds), *Language Problems and Developing Nations* (pp. 27–36). New York: John Wiley & Sons.
- \_\_\_\_\_ (1971c). National sociolinguistic profile formulas. In Anwar S. Dil (ed.), *Language Structure and Language Use* (pp.157-184). Stanford, Stanford University Press.
- \_\_\_\_\_ (1959/1972). Diglossia. In P.P. Gigliolo (ed.), *Language and social context: Selected readings* (pp.232–251). Harmondsworth.
- \_\_\_\_\_ (1996). Diglossia. In T. Huebner (ed), *Sociolinguistic Perspectives. Papers on language in society* (pp.25-39). New York : Oxford University Press.
- Festinger, L. (1962). *A theory of cognitive dissonance* (2<sup>nd</sup> ed.). Stanford, CA: Stanford University Press.
- Fettes, M. (1997). Language planning and education. In R. Wodak & D. Corson (eds), *Language planning and political issues in education* (pp. 13-22). Dordrecht: Kluwer Academic.
- Fishbein, M. (1966). The relationships between beliefs, attitudes, and behavior. In S. Feldman (Ed.), *Cognitive consistency* (pp. 199–223). New York: Academic Press.
- \_\_\_\_\_ (1967). A Consideration of Beliefs, and Their Role in Attitude Measurement'. In Fishbein, M. (ed.), *Readings in Attitude Theory and Measurement* (pp. 257-266). New York: John Wiley & Sons Inc,
- Fishbein, M., & Ajzen, I. (1974). Attitudes toward objects as predictors of single and multiple behavioral criteria. *Psychological Review*, 81, 59-74.
- \_\_\_\_\_ (1975). *Belief, Attitude, Intention and Behavior :An Introduction to Theory and Research*. Reading, MA:Addison-Wesley.

- Fishbein, M., & Coombs, F.S. (1974). Basis for decision. *Journal of Applied Social Psychology*, 4, 95-124.
- Fishman, j. A. (1967). Bilingualism with and without diglossia; diglossia with and without bilingualism. *Journal of Social Issues*, 32, 29-38.
- \_\_\_\_\_ (1968). *Sociolinguistics and the Language Problems of Developing countries*. New York: John Wiley & Sons.
- \_\_\_\_\_ (1971). The links between micro- and macro-sociolinguistics in the study of who speaks what language to whom and when. In J.A. Fishman, R.L. Cooper, & R. Ma, *Bilingualism in the Barrio* (pp.583-604). Bloomington: Indiana University Publications.
- \_\_\_\_\_ (ed.). (1974). *Advances in language planning*. The Hague: Mouton.
- \_\_\_\_\_ (1980). Prefatory Notes. In P.H. Nelde (ed.), *Languages in contact and conflict*. Wiesbaden.
- \_\_\_\_\_ (1980). Bilingualism and biculturalism as individual and as societal phenomena. *Journal of multilingual and multicultural development*, 1 (1), 3-15.
- \_\_\_\_\_ (2006). Language policy and language shift. In Ricento,T (ed.), *An introduction to language policy: theory and method* (pp. 311-328). Oxford: Blackwell Publishing.
- Fox, M.J. (1975). *Language and Development: A Retrospective Survey of Ford Foundation Language Projects, 1952-1974*. (vol. 2). New York: The Ford Foundation.
- Francescato, G. (1986). Bilingualism and diglossia in their mutual relationship. In J.A. Fishman *et al.* *The Fergusonian Impact: Sociolinguistics and the Sociology of Language* (pp.395-401), (Vol. 2). Nueva York: Mouton de Gruyter.
- Friedman, P.G. (1980). *Shyness and Reticence in Students*. Washington, D. C.: National Education Association.
- Gallois, C., Watson, B., & Brabant, M. (2007). Psychological perspectives: Social psychology, language and intercultural communication. In H. Kotthoff & O. Spencer (eds.), *Handbook of intercultural communication*, 7, *Handbook of Applied Linguistics*. Berlin: Mounon de Gruyter.
- Gardner, N. (1999). *Basque in Education in the Basque Autonomous Community*. Vitoria- Gasteiz: Eusko Jaurlaritzaren Argitalpen Zerbitzu Nagusia.
- Gardner, R.C. (1982). Language attitudes and language learning. In E. B. Ryan & H. Giles (Eds.), *Attitudes towards language variation* (pp.132-147). London, United Kingdom: Edward Arnold.

- \_\_\_\_\_ (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London, UK: Edward Arnold.
- Gardner, R.C., & Lambert, W. (1972). *Attitudes and motivation in second-language learning*. Rowly Massachusetts: Newbury House Publishers.
- Garrett, P. (2010). *Attitudes to language*. Cambridge, UK: Cambridge University Press.
- Garrett, P., Coupland, N. & Williams, A. (1999). Evaluating dialect in discourse: teachers' and teenagers' responses to young English speakers in Wales. *Language in Society*, 28, 321-354.
- \_\_\_\_\_ (2003). *Investigating language attitudes: social meanings of dialect, ethnicity and performance*. Cardiff: University of Wales Press.
- Gay, L.R. (1987). *Educational Research: Competencies for Analysis and Application* (3<sup>rd</sup> ed.). Columbus, Ohio: Merrill Publishing Company
- Genesee, F., & Nicoladis, E. (2006). Bilingual acquisition. In E. Hoff & M. Shatz (eds.), *Handbook of Language Development* (pp.324-342). Oxford, Blackwell.
- Giles, H., & Bourhis, Y. (1976). Methodological Issues in Dialect Perception: Some Social Psychological Perspectives. *Anthropological Linguistics*, 18, 294-304.
- Giles, H., Hewstone, M., Ryan, E.B., & Johnson, P. (1987). Research on language attitudes. In U. Ammon, N. Dittmar, & K.J. Mattheier (eds.), *Sociolinguistics : An International Handbook of the Science of Language and Society* (pp.585-597). New York : de Gruyter.
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, 204, 291 – 295.
- Glynn, S.M., & Muth, K.D. (1994). Reading and writing to learn science: Achieving scientific literacy. *Journal of Research in Science Teaching*, 31, 1057–1073.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8 (4), 597-607.
- Grandguillaume, G. (1983). *Arabisation et politique linguistique au Maghreb*. Maisonneuve et Larose, Paris.
- \_\_\_\_\_ (2005). Country case study on the language of instruction and the quality of basic education: policy of arabization in primary and secondary education in Algeria. Paper commissioned for the *EFA Global Monitoring Report 2005, The Quality Imperative*.
- Gray, D.E. (2004). *Doing Research in the Real World*. London: SAGE Publications.
- Green, T.M. (2003). *The Greek and Latin Roots of English* (3<sup>rd</sup> ed.). Rowman & Littlefield Publishers, INC.

- Greenwald, A. G., & Banaji, M.R. (1995). Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes. *Psychological Review*, 102(1), 4-27.
- Gregory, I. (2003). *Ethics in Research*. London: Continuum.
- Gumperz, J. J. (1982b). *Language and social identity*. Cambridge University Press.
- Haarmann, H. (1986). *Language in Ethnicity. A View of Basic Ecological Relations*. Walter de Gruyter.
- \_\_\_\_\_ (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.
- Hammersley, M. & Atkinson, P. (1989). *Ethnography. Principles in Practice*. London: Routledge.
- Harmer, J. (2001). *The Practice of English Language Teaching*. London: Pearson Education Limited.
- Harrison, S., & Morgan, R. (2012). Using Simplified English to identify potential problems for non-native speakers in the language of engineering examination papers. *Language Learning Journal*, 40 (1), 113-123.
- Haugen, E. (1959). Planning for standard language in modern Norway. *Anthropological Linguistics*, 1(3). 8–21.
- \_\_\_\_\_ (1966). *Language Conflict and Language Planning : The Case of Modern Norwegian*. Harvard University Press, Cambridge, Mass.
- \_\_\_\_\_ (1983). The Implementation of Corpus Planning: Theory and Practice. In Cobarrubias, J. & Fishman, J. A. (eds.), *Progress in language planning: International perspectives* (pp. 269-289.). Berlin: Mouton.
- \_\_\_\_\_ (1987). *Blessings of Babel: Bilingualism and Language Planning*. Mouton de Gruyter.
- Herriman, M., & Burnaby, B. (Eds.). (1996). *Language policies in English-dominant countries*. Clevedon, England: Multilingual Matters
- Heugh, K. (2002). Recovering multilingualism: Recent language-policy developments. In M. Rajend (ed.), *Language in South Africa* (449-475). New York: Cambridge University Press.
- Heyd, U. (1954). *Language Reform in Turkey*. The Institute of Oriental Studies, Jerusalem.
- Hogg M., Joyce N., & Abrams, D. (1984). Diglossia in Switzerland? A social identity analysis of speaker evaluations. *Journal of Language and Social Psychology*, 3, 185–196.



- Holbrook, A.L., Green, M.C., & Krosnick, J.A. (2003). Telephone versus face-to-face interviewing of national probability samples with long questionnaires: Comparisons of respondent satisficing and social desirability response bias. *Public Opinion Quarterly*, 67 (1), 79-125.
- Holes, C. (1995). *Modern Arabic: Structures, functions, and varieties*. London: Longman
- Holland, R.W., Verplanken, B., & Van Knippenberg, A. (2002). On the nature of attitude-behavior relations: the strong guide, the weak follow. *European Journal of Social Psychology*, 32(6), 869–876.
- Homan, R., & Bulmer, M. (1982). On the merits of covert methods: a dialogue. In M. Bulmer (ed.), *Social Research Ethics* Macmillan Press: London.
- Horn, C. (2015). Diglossia in the Arab World. *Open Journal of Modern Linguistics*, 5, 100-104
- Hornberger, N. (1994). Literacy and Language planning. *Language and Education*, 8 (1&2), 75-86.
- \_\_\_\_\_ (2006). Frameworks and models in language policy and planning. In T. Ricento (ed.), *An Introduction to Language Policy: Theory and Method* (pp. 24-41). Malden, MA: Blackwell Publishing.
- Hornberger, N. & Cassels, J. D. (2007). Slicing the onion ethnographically: layers and spaces in multilingual language education policy and practice. *TESOL Quarterly*, 41(3), 509–532
- Hornberger, N. & Ricento, T. (1996). Unpeeling the onion: Language planning and policy and the ELT professional. *TESOL Quarterly*, 30(3), 401-428.
- Horwitz, E.K., Horwitz, M.B., & Cope, J. (1986). Foreign Language Classroom Anxiety. *The Modern Language Journal*, 70(2), 125-132
- Horwitz, E.K., Horwitz, M.B., & Cope, J. (1986). Foreign Language Classroom Anxiety. *The Modern Language Journal*, 70(2), 125-132
- Hudson, R.A. (1996). *Sociolinguistics* (2<sup>nd</sup> ed.). Cambridge University Press.
- Huws, C.F. (2006). The Welsh Language Act 1993: a measure of success? *Language Policy*, 5(2), 141-160.
- Jäckle, A., Roberts, C. & Lynn, P. (2006). Telephone versus face-to-face interviewing: mode effects on data quality and likely causes. Report on Phase II of the ESS-Gallup Mixed Mode Methodology Project. Colchester, Institute for Social and Economic Research Working Paper 2006 (41).
- Jenkins, J. (2001). *The Effect of a Preschool MSA Immersion Program on Arab Children's Primary School Reading and Composition Scores*. Brigham Young University, Department of Linguistics.

- Jernudd, B. & Neustupny, J.V. (1986). *Language planning: For whom?* Presented at the Intern. Colloquium on Language Planning, Ottawa.
- Johansson, R. (2003). *Case Study Methodology*. Stockholm: Royal Institute of Technology.
- Johnson, B.T., & Boynton, M. H. (2010). Putting attitudes in their place. Behavioral prediction in the face of competing variables. In J.P. Forgas, J. Cooper, & W.D. Crano (Eds.), *The psychology of attitude and attitude change* (pp. 19–38). New York, NY: Psychology Press.
- Johnson, D.C. (2013). Introduction: ethnography of language policy, *International Journal of the Sociology of Language*, 219, 1-6.
- Johnson, D.C. & Ricento, T. (2013). Conceptual and theoretical perspectives in language planning and policy: situating the ethnography of language policy. *International Journal of the Sociology of Language*, 219, 7-21.
- Johnstone, A., & Selepeng, D. (2001). A language problem revisited. *Chemistry Education: Research and Practice in Europe*, 2(1), 19-29.
- Kalmar, I., Yong, Z. & Hong, X. (1987) Language attitudes in Guangzhou, China. *Language in Society*, 16, 499–508.
- Kaminskienė, L., & Kavaliauskienė, G. (2009). Proficiency in Reading, Writing and Translation Skills: ESP Aspect. *Studies About Languages*, 14.
- Kane, M.T. (1982). A sampling model of validity. *Applied psychological measurement*, 6, 125-160
- Kaplan, R. B. & Baldauf, Jr. R. B. (1997). *Language Planning: From Practice to Theory*. Clevedon: Multilingual Matters.
- \_\_\_\_\_ (2003). *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic.
- Karam, F. X. (1974). Toward a definition of language planning. In J. Fishman (ed.), *Advances in language planning* (pp.103–124). Berlin: Mouton.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163-204.
- Khan, S.B, & Weiss, J. (1973). The teaching of affective responses. In R.M.W. Travers (ed.), *Second Handbook of Research on Teaching* (pp. 759-804). Chicago, Rand McNally.
- Kim, M.S.M., & Hunter, J. E. (1993a). Attitude-behavior relations: A meta-analysis of attitudinal relevance and topic. *Journal of Communication*, 43(1), 101–142.
- King, J. (2009). Language is Life: The worldview of second language Speakers of Maori. In J.A. Reyhner & L. Lockard (Eds.), *Indigenous Language revitalization: encouragement, guidance & lessons learned*. Flagstaff, Ariz: Northern Arizona University.

- King, K.A., Fogle, L., & Logan-Terry, A. (2008). Family Language Policy. *Language and Linguistics Compass*, 2(5), 907–922.
- Kloss, H. (1968). Notes concerning a language-nation typology. In J. A. Fishman, C. A. Ferguson & J. Das Gupta (eds.), *Language problems of developing Nations* (pp.69–86). New York: John Wiley & Sons.
- \_\_\_\_\_ (1969). *Research possibilities on group bilingualism: A report*. Quebec: International Center for research on Bilingualism.
- Krashen, S., Scarcella, R.C., & Long, M.H. (1979). Age and rate and eventual attainment in second language acquisition. *TESOL Quarterly*, 13, 573-582.
- Krashen, S., & Terrell, T.D. (1983). *The Natural Approach: Language Acquisition in the Classroom*. Oxford: Pergamon Press.
- Labov, W. (1966). *The Social Stratification of English in New York City*. Washington: Center for Applied Linguistics.
- Laceb, M. (2002). Evaluation de l'expérimentation de l'introduction de tamazight dans le système éducatif. Etat des lieux. *Timmuzgha*, 6, 12-34. Algiers: HCA.
- Lamb, T. (2001). Language policy in multilingual UK. *Language Learning Journal*, 23, 4-12.
- Lambert, W.E., Giles, H., Gardner, R.G., & Fillerbaum, S. (1960). Evaluational reactions to spoken languages. *Journal of Abnormal and Social Psychology*, 60, 44-51.
- Lee, R.R. (1971). Dialect Perception: a Critical Review and Re-Evaluation. *Quarterly Journal of Speech*, 57, 410-417.
- Leech, N.L., & Onwuegbuzie, A.J. (2009). A typology of mixed methods research designs. *Quality and Quantity: International Journal of Methodology*, 43, 265–275.
- Lewis, G.E. (1981). *Bilingualism and Bilingual Education*. Pergamon Institute of English, London.
- Liddicoat, A.J. & Baldauf, Jr, R.B. (2008). Language Planning in Local Contexts : Agents, Contexts and Interactions. In A. J. Liddicoat & R. B. Baldauf Jr (eds.), *Language Planning and Policy: Language Planning in Local Contexts* (pp.3-17). Multilingual Matters.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Liu, F., & Maitlis, S. (2010). Nonparticipant Observation. In A.J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of Case Study Research* (pp.610-612). Thousand Oaks, CA: SAGE Publications.

- Maamouri, M. (1998). *Language education and human development: Arabic diglossia and its impact on the quality of education in the Arab region*. Discussion paper prepared for The World Bank Mediterranean Development Forum, Marrakesh. Philadelphia: University of Pennsylvania International Literacy Institute.
- Mackey, A., & Gass, S. (2005). *Second language research: Methodology and design*. New Jersey: Lawrence Erlbaum Associates.
- Mackey, W. (1967). *Bilingualism as a World Problem*. Montreal: Harvest House.
- Macnamara, J. (1967). The bilingual's linguistic performance : A psychological overview. *Journal of Social Issues*, 23, 58-77.
- Makoni, B. (2013). Language Gender and Citizenship: Reframing Citizenship from a Gender Equality Perspective. In Vaidehi Ramanathan (ed), *Language Policies and (Dis)Citizenship: Rights, Access, Pedagogies*. Multilingual Matters.
- Mammeri, M. (1980). *Amawal n Tmazight tatrart*, Imedyazen, Paris.
- \_\_\_\_\_ (1987). *Précis de grammaire berbère (kabyle)*. Paris : Ed. Awal.
- Marcais, W. (1930). *La diglossie arabe dans l'Enseignement public*. *Revue pédagogique*, 104 (12),401-409.
- Mariño Paz, R. (1998). *Historia da lingua galega* (2<sup>nd</sup> ed.). Santiago de Compostela: Sotelo Blanco.
- Marley, D. (2002). Diversity and uniformity. linguistic fact and fiction in Morocco. In K. Salhi (Ed.), *French in and out of France. Language policies, intercultural antagonisms and dialogue* (pp.335–376). Bern: Peter Lang.
- Martin, P.W. (2005a). 'Safe' language practices in two rural schools in Malaysia: Tensions between policy and practice. In A.M.Y. Lin and P.W. Martin (eds), *Decolonisation, Globalisation: Language-in Education Policy and Practice* (pp. 74–97). Clevedon: Multilingual Matters.
- McCarty, T. (2002). *A place to be Navajo: Rough Rock and the struggle for self-determination and indigenous schooling*. Mahwah, NJ: Lawrence Erlbaum Associates.
- McCroskey, J.C. (1977). Oral communication apprehension: A summary of recent theory and research. *Human Communication Research*, 4, 78-96.
- McDougall, J. (2006). *History and the Culture of Nationalism in Algeria*. Cambridge: Cambridge University Press.
- McGuire, W.J. (1985). Attitudes and Attitude Change. In G. Lindzey & E. Aronson (eds.), *The Handbook of Social Psychology*, (Vol. 2). New York: Random House.
- McKenzie, R.M. (2010). *The Social Psychology of English as a Global Language: Attitudes, awareness and identity in the Japanese context*. Dordrecht, Netherlands: Springer.

- Menken, K. & Garcia, O (eds.). (2010). *Negotiating Language Policies in Schools: Educators as Policymakers*. New York: Routledge
- Merriam, S.B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass.
- Mills, G.E. (2003). *Action research: a guide for the teacher researcher* (2<sup>nd</sup> ed.). Merrill/Prentice-Hall: Upper saddle River, NJ.
- Mitchell, T. F. (1986). What is educated spoken Arabic? *International Journal of the Sociology of Language*, 61 (1).
- Mohanty, A., Minati, P., & Rashim, P. (2010). Language policy in education and classroom practices in India: is the teacher a cog in the policy wheel? In K. Menken & O. Garcia (eds.), *Negotiating language policies in schools: educators as policymakers*, 211–231. New York & London: Routledge.
- Mostari, H. A. (2004). A sociolinguistic perspective on Arabisation and language use in Algeria. *Language Problems & Language Planning*, 28(1), 25–43.
- Mouhssine, O. (1995). Ambivalence du discours sur l'arabisation. *International Journal of the Sociology of Language*, 112, 45–61.
- Münstermann, H. & Van Hout, R. (1988). Language Attitudes and the Prediction of Dialect Use. In U. Knops, & R. Van Hout (Eds.), *Language attitudes in the Dutch language area* (pp.173-89).
- Myers-Scotton, C. (1986). Diglossia and Code-switching. In J.A. Fishman (ed.), *The Fergusonian Impact: Sociolinguistics and the Sociology of Language* (pp.403-415), (Vol. 2). Berlin: Mouton de Gruyter.
- \_\_\_\_\_ (2006). *Multiple voices: An introduction to bilingualism*. Oxford, UK: Blackwell.
- Nahir, M. (1984). Language planning goals: A classification. *Language Problems and Language Planning*, 8(3), 294-327.
- \_\_\_\_\_ (2003). Language Planning Goals: A Classification. In Paulston, C. Bratt and G. Richard (eds.), *Sociolinguistics: The Essential Readings* (pp.281-290). Oxford: Blackwell,
- Neustupný, J.V. (1970). Basic types of language treatment. *Linguistic Communications*, 7, 78-117. Reprinted in J.A. Fishman (ed.) 1974, *Advances in Language Planning* (pp. 37-48). The Hague: Mouton
- Neustupný, J.V. (1974). Basic types of treatment of language problems. In J. A. Fishman (Ed.), *Advances in Language Planning* (pp. 37-48). The Hague: Mouton.

- Oliver, P. (2003). *The Student's Guide to Research Ethics*. Maidenhead: Open University Press.
- Olson, J.M., & Stone, J. (2005). The influence of behavior on attitudes. In D. Albarracín, B.T. Johnson, & M.P. Zanna (Eds.), *The handbook of attitude* (pp. 223-272). Mahwah, NJ: Lawrence Erlbaum Associates.
- Olson, M.A., & Fazio, H.R. (2002). Implicit acquisition and manifestation of classically conditioned attitudes. *Social Cognition*, 20 (2), 89-104.
- Omdal, H. (1995). Attitudes Toward Spoken and Written Norwegian. *International Journal of the Sociology of Language*, 115, 85-108.
- Omoniyi, T. (2007). Alternative contexts of language policy and planning in sub-Saharan Africa. *TESOL Quarterly*, 41(3), 533-549.
- Osgood, C.E., Suci, G.J., & Tannenbaum, P. (1957). *The measurement of meaning*. Urbana IL: University of Illinois Press.
- Oskamp, S. & Schultz, P. W. (2005). *Attitudes and Opinions*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ovretveit, J. (1998). *Evaluating health interventions*. Berkshire: Open University Press.
- Palmer, J. (2007). Arabic Diglossia: Teaching only the standard variety is a disservice to students. *Arizona Working Papers in SLAT*, 14.
- Paradis, J. (2010). The interface between bilingual development and specific language impairment. *Applied Psycholinguistics*, 31, 227-252.
- Paradis, M. (2004). *A neurolinguistic theory of bilingualism*. Amsterdam: John Benjamins.
- Penfield, W., & Roberts, L. (1959). *Speech and Brain Mechanisms*. Princeton: Princeton University Press.
- Phellas, C.N., Bloch, A., & Seal, C. (2011). Structured methods: interviews, questionnaires and observation. In C. Seale (ed.), *Researching Society and Culture* (3<sup>rd</sup> ed.). London: Sage
- Phillipson, R. (1992). *Linguistic Imperialism*. Oxford: Oxford University Press.
- Polit, D.F., Beck, C.T. & Hungler, B.P. (2001), *Essentials of Nursing Research: Methods, Appraisal and Utilization* (5<sup>th</sup> ed.). Philadelphia: Lippincott Williams & Wilkins.
- Pool, J. (1976). The Politics of Language Planning. Prepared for delivery at the 10th World Congress of the International Political Science Association, Edinburgh, August 16-21, 1976. Copyright 1976 *International Political Science Association*.
- \_\_\_\_\_ (1978). Soviet language planning: Goals, results, options. In J.P. Azrael (ed.), *Soviet nationality policies and practices* (pp. 223-249). New York: Praeger Publishers.

- Puja, G.K. (2003). Kiswahili and Higher Education in Tanzania: Reflections Based on a Sociological Study from three Tanzanian University Campuses. In B. Birgit, Z. Desai, & M. Qorro (eds), *Language of Instruction in Tanzania and South Africa*. (Loitasa.) E&D Limited, Dar Es Salaam.
- Rebai Maamri, M. (2009). The Syndrome of the French Language in Algeria. *International Journal of Arts and Sciences*, 3(3), 77 – 89.
- Ricento, T. (2000a) Historical and theoretical perspectives in language policy and planning. In T. Ricento (ed.) *Ideology, Politics and Language Policies: Focus on English* (pp. 9–24). Amsterdam: John Benjamins.
- \_\_\_\_\_ (ed.) (2000b). *Ideology, Politics and Language Policies: Focus on English*. Amsterdam: John Benjamins.
- \_\_\_\_\_ (2006b). *An Introduction to Language Policy: Theory and Method*. Malden, MA: Blackwell.
- Ronelle, A. (2006). *Bosnian, Croatian, Serbian, a Grammar: With Sociolinguistic Commentary*. University of Wisconsin Press.
- Rosenberg, M.J. & Hovland, C.I. (1960). Cognitive, Affective and Behavioral Components of Attitudes. In M.J. Rosenberg, & C.I. Hovland (Eds.), *Attitude Organization and Change: An Analysis of Consistency among Attitude Components*. Yale University Press, New Haven.
- Rosenthal, J.W. (1996). *Teaching Science to language minority students*. England Multilingual Matters Ltd.
- Ruiz, R. (1984). Orientations in language planning. *NABE Journal*, 8(2). 15–34.
- Rubin, J. (1977). Bilingual education and language planning. In B. Spolsky & Robert L. Cooper (eds.), *Frontiers of bilingual education* (pp.282–294). Rowley, MA: Newbury House.
- \_\_\_\_\_ (1979). *Directory of Language Planning Organizations*. East-West Culture Learning Institute, Honolulu, HI.
- Rubin, J. & Jernudd, B. (eds.). (1971). *Can language be planned? Sociolinguistic Theory and Practice for Developing Nations*. Hawaii: The University Press of Hawaii
- Ryan, E.B., & Giles, H (eds.). (1982). *Attitudes toward Language: Social and Applied Contexts*. London: Edward Arnold.
- Ryan, E.B., Giles, H., & Hewstone, M. (1988). The Measurement of Language Attitudes. In U. Ammon, N. Dittmar, & K. J. Mattheier (eds), *Sociolinguistics. An International Handbook of the Science of Language and Society*, (vol. 2). Berlin, Walter de Gruyter.

- Ryding, K. C. (1991). Proficiency Despite Diglossia: A New Approach for Arabic. *The Modern Language Journal*, 75 (2), 212-218. Blackwell Publishing.
- Sadanand, K. (1993). Assessing attitudes to English and language use. *Indian Journal of Applied Linguistics*, XIX (1), 123-139.
- Saiegh-Haddad, E. (2003). Linguistic distance and initial reading acquisition: The case of Arabic diglossia. *Applied Psycholinguistics*, 24, 431-451.
- Saville-Troike, M. (1989). *The ethnography of communication: An introduction*. New York: Basil Blackwell.
- Schiffman, H. F. (1996). *Linguistic culture and language policy*. London/New York: Routledge.
- \_\_\_\_\_ (1997). Diglossia as a sociolinguistic situation. In F. Coulmas (Ed.), *The handbook of sociolinguistics* (pp.205-216). London: Basil Blackwell, Ltd.
- Schmied, J. J. (1991). *English in Africa: an introduction*. Harlow, Essex: Longman.
- Schmuck, R. (1997). *Practical action research for change*. Arlington Heights, IL: IRI/Skylight Training and Publishing.
- Sebba M. (2011). Societal bilingualism. In R. Wodak, B. Johnstone, & P. Kerswill (eds.), *The SAGE handbook of sociolinguistics* (pp.445–459). Los Angeles, London.
- Sharp, D., Thomas, B., Price, E., Francis, G., & Davis, I. (1973). *Attitudes to Welsh and English in the Schools of Wales*. Schools Council Publications. Macmillan, University of Wales Press.
- Shohamy, E. (2006). *Language Policy: Hidden Agendas and New Approaches*. London: Routledge.
- Short, D.J. & Spanos, G. (1989). *Teaching mathematics to limited English proficient students*. ERIC Digest." Washington, DC: ERIC/CLL.
- Simon, Gerhard. (1991). *Nationalism and policy toward the nationalities in the Soviet Union: From totalitarian dictatorship to post-Stalinist society*, trans. By Karen Forster and Oswald Forster. Boulder: Westview Press.
- Skilton-Sylvester, E. (2003). Legal discourse and decisions, teacher policymaking and the multilingual classroom: Constraining and supporting Khmer/English biliteracy in the United States. *International Journal of Bilingual Education and Bilingualism*, 6 (3 & 4), 168-184.
- Skutnabb-Kangas, T. (2000). *Linguistic Genocide in Education – or Worldwide Diversity and Human Rights?* Mahwah, New Jersey: Lawrence Erlbaum Associates.)
- Smit, U. (1996). *A New English for a New South Africa? Language Attitudes, Language Planning and Education*. Austrian studies in English, 83. Vienna: Braumüller.



- Smith, E.R. (1996). What do connectionism and social psychology offer each other? *Journal of Personality and Social Psychology*, 70, 893-912.
- Smith, M.K., & Bailey, G.H. (1980). Attitude and Activity: Contextual Constraints on Subjective Judgments. In H. Giles, W. Robinson, & P. Smith (eds.), *Language: Social Psychological Perspectives* (pp.209-226). Oxford: Pergamon Press.
- Smyth, M., & Williamson, W. (Eds.). (2004). *Researchers and their 'Subjects': Ethics, Power, Knowledge and Consent*. Policy Press: Bristol.
- Spanos, N.P., Stenstrom, R.J., & Johnston, J.C. (1988). Hypnosis, suggestion and placebo in the treatment of warts. *Psychosomatic Medicine*, 50, 245-260
- Spolsky, B. (1998). *Sociolinguistics*. Oxford: Oxford University Press.
- \_\_\_\_\_ (2004). *Language policy*. Cambridge: Cambridge University Press.
- \_\_\_\_\_ (2009). *Language Management*. Cambridge: Cambridge University Press
- Spolsky, B. & Shohamy, E. (1999). *The Languages of Israel: Policy, Ideology and Practice*. Clevedon: Multilingual Matters.
- \_\_\_\_\_ (2000). Language practice, language ideology, and language policy. In Lambert, R.D. (Ed.). *Language policy and pedagogy* (pp 2-41) Philadelphia, John Benjamins Publishing Company.
- Stake, R.E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.
- Stewart, W. A. (1968). Sociolinguistic Typology of Multilingualism. In J. Fishman (ed.), *Readings in the Sociology of Language*. The Hague: Mouton Publishers.
- Stritikus, T.T. (2003). The interrelationship of beliefs, context, and learning: the case of a teacher reacting to language policy. *Journal of Language, Identity, and Education*, 2(1), 29-52
- Suleiman, S. M. (1986). *Jordanian Arabic between diglossia and bilingualism: Linguistic analysis (pragmatics and beyond VI:8)*. Amsterdam: John Benjamins.
- Taleb Ibrahimi, K. (1995). Les Algériens et leur(s) langue(s). El Hikma, Alger.
- \_\_\_\_\_ (1997). L'arabisation : lieu de conflits multiples. *Réflexions*, 1, 39-63. Casbah Editions, Alger.
- Tauli, V. (1968). *Introduction to a Theory of Language Planning*. (Acta universitatis Upsaliensis: Studia Philologiae Scandinavicae Upsaliensia 6.) Stockholm: Almqvist & Wiksell.
- Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L.P., Robson, R., Thabane, M., Giangregorio, L., & Goldsmith, C.H. (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology*, 10.

- Tollefson, J.W (ed.). (1991). *Planning Language, Planning Inequality: Language policy in the community*. Harlow: Longman.
- \_\_\_\_\_ (2002a). Critical Issues in Language Policy in Education. In J. W. Tollefson (ed.), *Language Policies in Education: Critical Issues* (pp.3-10). Mahwah, NJ: Lawrence Erlbaum
- \_\_\_\_\_ (2002b). Limitations of language policy and planning. In R. B. Kaplan (ed.), *Oxford Handbook of Applied Linguistics* (pp.416-425). Oxford: Oxford University Press.
- Troop, R. (2007). Teachers as Language Policy Planners: Incorporating Language Policy Planning into Teacher Education and Classroom Practice. *Working Papers in Educational Linguistics*, 22(2), 45-65.
- Trudgill, P. (1992). *Introducing language and society*. Penguin Books.
- \_\_\_\_\_ (2002). *Sociolinguistic Variation and Change*. Edinburgh University Press.
- \_\_\_\_\_ (2003). *A Glossary of Sociolinguistics*. Oxford: Oxford University Press.
- Trudgill, P. & Tzavaras, G.A. (1977). Why Albanian Greeks are not Albanians: Language shift in Attica and Biotia. In H. Giles (ed.), *Language, Ethnicity and Intergroup Relations* (pp.171-184). London: Academic Press.
- Underhill, L.G., & Bradfield, d. (1998). *Introstat*. Juta and Company Ltd.
- Valdiviezo, L.A. (2010). Indegenous worldviews in intercultural education: teachers' construction of interculturalism in a bilingual Quechua-Spanish program. *Intercultural Education*, 21(1): 27-39
- \_\_\_\_\_ (2013). Vertical and horizontal approaches to ethnography of language policy in Peru. *International Journal of the Sociology of Language*, 219, 23-46.
- Verhoeven, L. (1994a). Linguistic Diversity and Literacy Development. In L. Verhoeven (Ed.), *Functional Literacy: theoretical issues and educational implications* (pp.199-219). Amsterdam: John Benjamins.
- Versteegh, K. (2004). *The Arabic Language*. Edinburgh: Edinburgh University Press.
- Walther, E., & Langer, T. (2008). Attitude Formation and Change through Association: An Evaluative Conditioning Account. In D.Crano, W. Prislina, Radmila (eds.), *Attitudes and Attitude Change* (pp.87-110). New York, London: Psychology Press.
- Wardaugh, R. (1992). *An Introduction to Sociolinguistics* (2<sup>nd</sup> ed.). Blackwell Publishing.

- Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive Measures: Nonreactive Measures in the Social Sciences*. Chicago: Rand McNally.
- Webb, V. (1996a) English and language planning in South Africa: The flip-side. In V. de Klerk (ed.), *Focus on South Africa* (pp.175-190). Amsterdam: John Benjamins.
- \_\_\_\_\_ (2002). English as a second language in South Africa's tertiary institutions: a case study at the University of Pretoria. *World Englishes*, 21 (1), 49-61.
- Wicker, A. W. (1969). Attitude versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues*, 25(4), 41-78.
- Williams, C. H. (1991 a). Conclusion: sound language planning is holistic in nature. In C.H. Williams (ed.), *Linguistic Minorities, Society and Territory* (pp.315-323). Clevedon, Avon: Multilingual Matters.
- Wood, W. (2000). Attitude change: persuasion and social influence. *Annual review of psychology*, 51, 539–70.
- Woolard, K.A. (1989). *Double talk: Bilingualism and the politics of ethnicity in Catalonia*. Stanford, CA: Stanford University Press.
- \_\_\_\_\_ (1992). Language ideology: Issues and approaches. *Pragmatics*, 2 (3), 235-250.
- Yearous, J. (2012). French in the Face of Arabization: Language Attitudes among High School Students in Rabat. *UW-L Journal of Undergraduate Research XV*.
- Yin, R.K. (1994). *Case study research: Design and Methods* (2<sup>nd</sup> ed.). Newbury Park, CA: Sage Publications.
- Younes, M. A. (1995). An integrated curriculum for elementary Arabic. In M. Al-Batal (ed.), *The teaching of Arabic as a foreign language: Issues and directions* (pp.233-255). Provo, Utah: American Association of Teachers of Arabic.
- Zajonc, R.B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monograph Supplement*, 9 (2), 1-27
- Zuzovsky, R. (2008, January). *The impact of socioeconomic factors on achievement gaps in reading literacy between Hebrew-speaking and Arabic-speaking students in Israel*. Paper presented at the 4<sup>th</sup> Conference of the Israel Psychometric Association, Jerusalem, Israel.

## Arabic References

## المراجع العربية

- س.م. بدوي. (1973). *مستويات العربية المعاصرة في مصر*. القاهرة- دار المعرفة
- Badawi, S.M. (1973). *Mustawayat al-aarabya almuaasirah fi Misr*. Cairo :Dar almaarifa
- ع. جباري. (2005). تعريب المصطلحات العلمية الأسماء كثيرة والمقصود واحد. القافلة، 54 (4) ، 45-42
- Djebbari, A. (2005). Taarib almutalahat aliilmya : al-asmaa kathira wa almaqsudu wahid. *Alqafilah*, 54 (4), 42-45
- س.ب.ع. الدارودي. (2012). *حول عروبة البربر- مدخل إلى عروبة الأمازيغيين من خلال اللسان*. منشورات فكر – الرباط
- Daroudi, S. B. A. (2012). *Hawla aurubati albarbar : madkhal ila aurubati alamazighiyine min khilal allisane*. Menshurat alfikr : rabat.
- ز. دندان. (2013). اللغة العربية، إشكال الازدواجية والتعليم الرسمي. ملتقى دولي بدبي، ماي 2013 اللغة العربية في خطر: الجميع شركاء في حمايتها
- Dendane, Z. (2013). *Allugha Alaarabya : Ishkal al-izdiwajia wa attaalim arrasmi*. [https://www.academia.edu/3785806/The\\_Arabic\\_Language\\_the\\_issue\\_of\\_Diglossia\\_and\\_formal\\_education](https://www.academia.edu/3785806/The_Arabic_Language_the_issue_of_Diglossia_and_formal_education)
- ع. دنان. (2010). *نظرية تعليم اللغة العربية الفصحى بالفطرة والممارسة - موجزها وانتشارها وكيفية تطبيقها*. دار البشائر/سورية
- Dennane, A. (2010). *Nadaryat taalim allugha Al-aarabya Alfus-ha bi-alfitrah wa almumarassah : Mujazuha wa intisharuha wa kayfiyat tatbiquiha*. Syria. Dar Albashair.
- ع. سعدي. (1998). *البربر الامازيغ عرب عاربة*. شركة الملتقى للطبع و النشر.
- Saadi, O. (1998). *Albarbar alamazigh aarabun aaribah*. Sharikat almultaqua li attabaa wa annashr
- ع. سعدي. (2015). *تدريس-الدرجة-مشروع-استعماري* .
- Saadi, O. (1998). *Tadris addarija mashrue istiimari*. [http://www.elhayatonline.net/article31129. Html](http://www.elhayatonline.net/article31129.Html) (Aug 23, 2013)

- أ. فراد. (2014). بومدين صَنَّف الأمازيغية ضمن الجرائم التي يعاقب عليها القانون. الشروق 04-22-.
- Ferrad, A. (2014). Boumedienne sannafa alamazighiya dimna al-djaraim allati yuaquibu aalayha alquanun. *Echourouk* (22 April, 2016). <http://www.echoroukonline.com/ara/articles/202249.html>.
- الصوت. (26 افريل 2015). بن غبريط ترفع الحجم الساعي للغة الفرنسية
- Assawt (Dec. 26, 2015). Benghabrit tarfaau al—hadjm assai li-allugha al-faransiya. [www.assawt.net](http://www.assawt.net).
- م.ر. الزغول. (2007). ازدواجية اللغة: طبيعتها ومشكلاتها في سياق التعليم
- Zughoul, M. R. (2007). *Izdiwajiyat al-lugha : tabiatuha wa mushkilatuha fi siyaq attaalim*. <http://www.shatharat.net/vb/showthread.php?t=14611> (May 11, 2014)
- النهار. (2015). بن غبريط تعلن تعميم تعليم الأمازيغية إلى 20 ولاية خلال الدخول المدرسي المقبل.
- Ennahar. (2015). Benghabrit tuaalinu taamim taalim Al-amazighiya ila 20 wilaya khilal addukhul al-madrassi aluqbil. [ennaharonline.com/ar/national/246893](http://ennaharonline.com/ar/national/246893) (July 15, 2015).

## WEBOGRAPHY

- Algérie: La politique linguistique d'arabisation. [http://www.axl.cefan.ulaval.ca/afrique/algerie-3Politique\\_ling.htm](http://www.axl.cefan.ulaval.ca/afrique/algerie-3Politique_ling.htm) (Apr. 29, 2014).
- algerie-focus. (2015). *Langues: Plus de 11 millions d'Algériens parlent couramment le français*. <http://www.algerie-focus.com> (Mar. 17, 2015).
- American Association for the Advancement of Science. (1989). *Science for All Americans*. <http://www.project2061.org/publications/sfaa/online/> (Aug. 5, 2014).
- Brincat, J.M. (2005). *Maltese – an unusual formula*. *Macmillan English Dictionaries*. <http://macmillandictionaries.com/MEDMagazine/February2005/27-LI-Maltese.htm> (May 23, 2015).
- CENEAP. (2013). *L'analphabétisme en Algérie : Un taux en baisse*. El Moudjahid, <http://www.elmoudjahid.com/fr/mobile/detail-article/id/36752> (June 11, 2014).
- Chapter Al-hidjr (Quran). <http://www.noblequran.com/translation/> (Sep. 11, 2015)
- National Charter. (1962). <http://www.elmouradia.dz/francais/symbole/textes/tripoli.htm> (Oct. 3, 2015).
- De Houwer, A. (1999). *Two or more languages in early childhood: some general points and practical recommendations*. *Eric Digest*. <http://askeeric.org/plweb/cgi/obtain.pl> (Nov. 25, 2014).
- Ferkal, M. (1996). Speech at the Geneva meeting of the UN decade for the rights of indigenous people. *Amazigh World Congress (AWC)*. [http://www.worldlynx.net/tamazgha/agraw3\\_eng.html](http://www.worldlynx.net/tamazgha/agraw3_eng.html) (May 14, 2015).
- Fienberg, S.E. (2003). Notes on stratified sampling. *Statistics 36-303*. <http://www.stat.cmu.edu/~fienberg/Stat3630303/Handouts/StratificationNotes-03.pdf> (Jan. 12, 2013).
- Freeman, A. (1996). *Perspectives on Arabic Diglossia*. [http://innerbrat.org/Andyf/Articles/Diglossia/digl\\_96.htm](http://innerbrat.org/Andyf/Articles/Diglossia/digl_96.htm). (Mar. 3, 2011).
- Journal Officiel de la République Algérienne (1995). décret présidentiel n° 95-147 du 27 Dhou El hidja 1415 correspondant au 27 mai 1995 portant création du Haut commissariat chargé de la réhabilitation de l'amazighité et de la promotion de la langue amazighe. <http://www.joradp.dz/JO2000/2004/009/FP27.pdf> (Nov. 25, 2013)

- LaPiere, R.T. (1934). Attitudes vs. actions. *Social Forces*, 13, 230-7. <http://mindsandmodels.blogspot.com/2011/04/classic-study-lapierre-1934-on.html> (Sep. 7, 2012)
- Llengua Nacional*. (2002). *Catalan linguistic review*. <http://fpl.forumactif.com/Forum-Occitan-f11/Le-patois-des-vieux-el-patues-dels-vells-p11914.htm> (July 14, 2012)
- McDonald, F. & Kielsmeier, C. (1970). *Social learning theory*. <http://www.polivkavox.com/2015/10/social-learning-theory.html> (Oct. 14, 2014).
- Myhill, J. (2009), *Towards an Understanding of the Relationship between Diglossia and Literacy, a Survey Commissioned by the Language and Literacy Domain Committee*. [http://www.academy.ac.il/hp.asp?file=asp/projects\\_new/projects.asp?txt=1||34](http://www.academy.ac.il/hp.asp?file=asp/projects_new/projects.asp?txt=1||34) (Apr. 13, 2012).
- Reyhner, J. (1999). Introduction: Some basics of Indigenous language revitalization. *Revitalizing Indigenous languages*. Flagstaff, Ariz: Northern Arizona University, Center for Excellence in Education. [http://jan.ucc.nau.edu/~jar/RIL\\_Intro.html](http://jan.ucc.nau.edu/~jar/RIL_Intro.html) (Oct. 19, 2014).
- Sincero, S.M. (2012). *Personal Interview Survey*. <https://explorable.com/personal-interview-survey> (Nov. 4, 2013).
- Siniscalco, M.T., & Auriat, N. (2005). Quantitative research methods in educational planning. *International Institute for Educational Planning/UNESCO*. <http://www.unesco.org/iiep> (11 Oct., 2013).
- Schiffman, H.F. (1997). *The Study of Language Attitudes*. <http://ccat.sas.upenn.edu/~haroldfs/540/attitudes/attitude.html> (Jan.23, 2011)
- \_\_\_\_\_ (2004). *Diglossia as a Sociolinguistic Situation*. <http://ccat.sas.upenn.edu/~haroldfs/messeas/diglossia/handbuk.html>. (June 14 , 2012).
- Smith, M.K. (1997). *Participant observation: a guide for educators and social practitioners*. <http://infed.org/mobi/participant-observation-a-guide-for-educators-and-socialpractitioners/> (May 11, 2013).
- Timpany, G. (2011). *Structured vs. Unstructured Questions*. <http://survey.cvent.com/blog/customer-insights-2/structured-vs-unstructured-questions> (Sep. 24, 2013).
- Trueman, C.N. (2015). *Unstructured Questionnaires*. 22 May 2015. 17 Dec 2015. <http://www.historylearningsite.co.uk/sociology/research-methods-in-sociology/unstructured-questionnaires/> (Sep. 24, 2013)
- UNESCO. (2015). *Adult literacy rate, population 15+ years (both sexes, female, male)*. *UIS Data Centre*. (Nov. 19, 2015).
- Zachary, K. (2004). *Mission Civilisatrice*. <http://www.encyclopedia.com/doc/1G2-3424601844.html> on January 30.2016 (Aug. 4, 2014).

## **APPENDICES**



## Appendix A: Linguistic Regulations

Appendix A provides a non-exhaustive list of language laws in Algeria. Such laws have been adapted from [http://www.axl.cefan.ulaval.ca/afrique/algerie-3Politique\\_ling.htm](http://www.axl.cefan.ulaval.ca/afrique/algerie-3Politique_ling.htm) (my translation).

### 1. The Status of Languages in the different constitutions of Algeria

#### ✓ Constitution of 1963

**Art. 5** : Arabic is the national and official language of the state.

**Art. 76** : The effective completion of Arabization must take place as soon as possible on the territory of the Republic. However, notwithstanding the provisions of this act, the French language may be used **temporarily** alongside the Arabic language.

#### ✓ Constitution of 1976

**Art. 3** : Arabic is the national and official language. The State works to generalize the use of the national language to the official plan.

#### ✓ Constitution of 1989

**Art. 3** : Arabic is the national and official language.

#### ✓ Constitution of 1996

**Art. 3** (1996)

Arabic is the national and official language.

**Art. 3 bis** (adopted April 10, 2002)

Tamazight is also a national language.

The State works on its promotion and development, with all its linguistic varieties that are in spoken throughout the national territory.

**Art. 178** (adopted November 15, 2008)

Any constitutional revision can not infringe on:

3. Islam, as the religion of the state;
4. Arabic, as national and official language;

#### ✓ Constitution of 2016

**Art. 3**

Arabic is the national and official language.

Tamazight is equally a national and official language.

## **2. Some Texts Imposing Arabic in the Public Domian**

✓ **Decree No. 74-70 of 3 April 1974: Arabisation of commercial advertising**

**Art. 1:** Commercial advertising produced and broadcast on the national territory must be expressed **in Arabic**.

The use of **a foreign language** for the same ends is optional. In this case, the advertisement must be designed as a complementary reproduction translated or transposed.

✓ **Decree No. 81-36 of March 14, 1981 on the Arabization of the linguistic landscape**

**Art. 1:** Signs, panels and, in general, any inscription painted, engraved or luminous indicating an institution, a company, an organization or any other body mentioning the activity that it carries, are in the **national language ...**

✓ **Law No. 86-10 of August 19, 1986 establishing the Algerian Academy of the Arabic Language**

**Art.1:** This law concerns the creation of the Algerian Academy of the Arabic language and the definition of its missions and the general rules of its organization, operation and financing.

✓ **Law No. 05-91 of Jumada Ethania 30, 1411, corresponding to January 16, 1991, concerning the generalization of the use of the Arabic language**

**Art.4:** Public administrations, institutions, companies and associations, whatever their nature is, are required to use solely the Arabic language in all their activities, such as communication, administration, financial, technical and artistic management.

**Art.5:** All official documents, reports and minutes of public administrations, institutions, companies and associations are written in Arabic language.

The use of any foreign language in the deliberations and discussions of official meetings is forbidden.

**Art.15:** Teaching, education and training in all sectors, in all levels and in all specialties are delivered **in Arabic**, taking account of foreign languages teaching methodologies.

**Art. 29:** Any official document in a language other than Arabic is null and void. The person/institution who drafted or signed the document takes full responsibility of the effects that result.

- ✓ **Legislative Decree 92-02 of July 4, 1992 on the implementation of Law No. 91-OS of January 16, 1991**

**Art.1:** The maximum period set by Article 36 of Law 91-05 of January 16, 1991 on the generalization of the use of the Arabic language **is extended until meeting the required conditions.**

- ✓ **Ordinance No. 96-30 of Sha'ban 10, 1417 corresponding to December 21, 1996 amending and supplementing Law No. 91-05 of Jumada Ethania 30, 1411 corresponding to January 16, 1991**

**Article 7 :**

**Art. 36** amending and completing the Law n° 91-05 of January 16, 1991 :

"Art. 36 "The provisions of this Ordinance shall apply since its issuance. The operation of the generalization of the use of Arabic will be fully completed within a period not exceeding July 5, 1998. Nevertheless, the total and definitive teaching in Arabic in all institutions of higher education and higher institutes will be provided within a period not exceeding July 5, 2000, subject to the provisions of Article 23 above. "

### **3. Some Laws Concerning Tamazight**

- ✓ **Presidential Decree No. 95-147 of Dhu Al Hijjah 27, 1415 corresponding to May 27, 1995 establishing the *Haut Commissariat à l'Amazighité* (HCA)**

**Art.1 :**A structure called *Haut Commissariat à l'Amazighité* (High Commission for Amazighity) is created to rehabilitate Amazighity and to promote the Tamazight language...

- ✓ **Executive Decree No. 03-470 of Shawwal 8, 1424 corresponding to December 2, 2003.**

**Art. 1:** This Decree concerns the establishment, organization and functioning of an educational and linguistic national centre for teaching Tamazight.

- ✓ **Ordinance No. 03-09 of Jumada Ethania 14, 1424 corresponding to August 13, 2003 amending and supplementing Ordinance No. 76-35 of April 16, 1976 concerning the organization of education and training.**

**Art.4 :**

"Art. 8 bis - [...] The State works on promoting and developing the teaching of Tamazight in all its linguistic varieties that are spoken throughout the country, mobilizing organizational and educational resources that are required to meet the demand of this teaching countrywide.

## Appendix B Students' Questionnaire (original version)

الرجاء وضع العلامة X أمام الإجابة التي تراها مناسبة.

### الجزء ١

#### معلومات شخصية

الجنس  ذكر  أنثى  
القسم  بيولوجيا  جيولوجيا  علوم الغابات

1. قيم قدراتك التواصلية بالفرنسية

ضعيف	نوعا ما ضعيف	نوعا ما جيد	جيد
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

الفهم  
التحدث  
الكتابة

2. هل سبق لك و أن تلقيت تعليما إضافيا مكثف في الفرنسية خارج المؤسسات التربوية؟  نعم  لا

### الجزء ١١

#### 3. تحديد الصعوبات التي تواجه الطلاب أثناء التكوين

غالبا ما نسمع أن طلاب التخصصات العلمية و التقنية تعترضهم صعوبات جمة أثناء تكوينهم خاصة خلال المرحلة الأولى من تكوينهم الجامعي. ما يلي بعض من هذه الصعوبات تم استنباطها من بعض الطلاب. الرجاء وضع الأرقام من 1 إلى 6 أمام الاقتراحات الآتية تدرجا من الأكثر صعوبة إلى الأقل صعوبة

- المقاييس المدرسة صعبة جدا  
 كثرة المقاييس خلال السداسي الواحد  
 لغة التدريس  
 طرق التدريس المنتهجة من قبل الأساتذة  
 قلة المراجع في الاختصاص  
 كثرة عدد الطلاب في الفوج

## القدرات اللغوية

( خ ك =خطأ كلياً ، خ ج =خطأ جزئياً ، ص ج =صحيح جزئياً ، ص ك =صحيح كلياً )

خ ك خ ج ص ج ص ك

4. افهم معظم ما يقوله الأستاذ خلال المحاضرة
5. افهم معظم ما قرأه في الكتب العلمية المكتوبة بالفرنسية
6. التدريس باللغة الفرنسية يحد من مشاركة الطلبة و مناقشتهم للأستاذ أثناء المحاضرة
7. التعبير كتابة باللغة الفرنسية أمر شاق

الوقت و الجهد اللازمين لقراءة و استيعاب المادة العلمية المكتوبة بالفرنسية ( كتب أو مجلات) مقارنة بالمادة العلمية المكتوبة بالعربية

أكثر  أقل  لا فرق

9. الوقت و الجهد اللازمين للكتابة بالفرنسية مقارنة بالكتابة بالعربية

أكثر  أقل  لا فرق

## الجزء III

10. استخدام العربية، مقارنة بالفرنسية، من شأنه أن

يعم  لا فرق  يعم

- \* يجعل اكتساب المعلومات و استيعاب الدروس أسرع، أسهل، و أعمق
- \* يزيد من نسبة المشاركة و المناقشة أثناء المحاضرة
- \* يولد انسجام أكثر بين تفكير الطالب و ممارساته اللغوية
- \* يزيد من اهتمام الطلبة بالتعلم
- \* يعيق التطور العلمي و ينعكس سلباً على المستوى العلمي للطلبة
- \* يعزل الطلبة الباحثين حيث أن العربية لا تمكنهم من القراءة و الاضطلاع على الاكتشافات و المستجدات التي تم التوصل إليها عبر مختلف أقطار العالم

أوافق تماما	أوافق	لا رأي	لا أوافق	لا أوافق اطلاقا	
					11. نفس المحتوى الذي يقدم بالفرنسية يمكن تقديمه بالعربية باعتبار أن اللغة ما هي إلا وسيلة تبليغ. هذا يعني أنه من الممكن تدريس العلوم باستخدام العربية.
					12. التعلم بالعربية له فوائد أكثر من التعلم بلغة أجنبية.
					13. بما أنني معتاد على العربية كلغة التعلم في المدرسة منذ الطفولة فإن هذا يجعل دراسة التخصصات العلمية بالعربية أفضل
					14. أفضل أن يتوفر التكوين في المجال العلمي بالعربية مع تدريس الفرنسية مادة كباقي المواد و بحجم ساعي مكثف يسمح للطالب بتطوير قدراته اللغوية باعتبار أن الفرنسية لغة مهمة في الجزائر
					15. لو كان لدي الخيار كنت سأفضل مواصلة دراسة نفس التخصص باللغة العربية
					16. إذا توفرت الكتب و المراجع بالعربية فانا أؤيد تعريب العلوم
					17. إذا كان بإمكان الأساتذة التدريس بالعربية فانا أؤيد تعريب العلوم
					18. أعتقد انه يجب علينا أن نكون أوفياء و متحمسين لسياسة التعريب
					19. لا بد من فرض مرسوم سياسي (قانون) يجبر الجامعات على استخدام العربية في جميع التخصصات بما فيها العلمية و التقنية

## IV الجزء

أوافق تماما	أوافق	لا رأي	لا أوافق	لا أوافق اطلاقا	
					20. بغض النظر عن توفر المراجع من عدمه وحتى إذا كانت العربية رمز وطني فإن الفرنسية مناسبة أكثر لتعليم/ تعلم العلوم
					21. العربية، بخلاف الفرنسية، غير قادرة على تحمل الخطاب العلمي وإنما هي لغة مناسبة أكثر للأدب والشعر
					22. المواد العلمية والتقنية أسهل للفهم عندما تدرس باللغة الفرنسية
					23. دراسة العلوم بالفرنسية تعتبر مفتاحا للحصول الأكاديمي العالي
					24. الفرنسية توفر سهولة في قراءة ومعرفة البحوث العلمية الحالية التي تم التوصل إليها عبر أنحاء العالم
					25. دراسة العلوم باللغة الفرنسية تعد مفتاحا لسوق العمل دوليا
					26. أتمنى تطوير كفاءة عالية في اللغة الفرنسية .
					27. أريد العمل أو الدراسة في الخارج ولذلك أحتاج الفرنسية
					28. التحكم الجيد في اللغة الفرنسية أو غيرها من اللغات الأجنبية هو ثراء لغوي
					29. معرفة اللغة الفرنسية وحدها تعد نقصا حيث أنها لغة مفيدة فقط في البلدان الناطقة بالفرنسية
					30. اللغة الفرنسية في حد ذاتها لا تخدم الباحث كثيرا في التعمق في البحث ما لم تكن له معرفة بلغات أخرى خاصة الانجليزية

شكرا جزيلاً على تعاونكم

## Students' Questionnaire (translated version)

Please, tick where appropriate

### Section I:

#### Personnel data:

Gender:             male             Female

Department:     Biology         Geology         Forest Sciences

1. Evaluate your communicative competence in French:

	Low	quite low	quite good	good
Understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Have you enrolled in an intensive French-learning program?

Yes     No

### Section II:

#### Learning Difficulties

3. One frequently hears that students in scientific, medical and technological fields face many learning difficulties, especially at the beginning of the university career. Using numbers from 1 to 6, prioritize the following difficulties you might undergo

- The subjects are difficult
- Teaching methods
- Language of instruction
- lack of learning resources
- number of subjects
- High number of students



**language abilities**

(DF= Definitely false, PF= partly false, PT= partly true, DT=definitely true)

- |  | DF                    | PF                    | PT                    | DT                    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 4. I understand most of what the teacher says during classes   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. I understand most of the French-composed scientific materials that I read                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Teaching science in French decreases the degree of students' verbal participation and discussion during classes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Writing in French makes it hard to express yourself   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

8. The time and effort required to read and assimilate the Arabic scientific material (books, magazines, etc) when compared to that composed in French are:

- Less                       same                       more

9. The time and effort required to write in Arabic when compared to writing in French are:

- Less                       same                       more

**Section III:**

- |  |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|
| 10. Using Arabic, compared to French, is supposed to:  | yes                   | no                    | no difference         |
| a. make students' acquisition of information and assimilation of the content quicker, easier and deeper; | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. increase the degree of students' participation and discussion during classes;                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. create harmony between students' thinking and speaking;   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. bolster students' interest in learning;   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- e. hinder scientific development and negatively affect students' scientific level;
- f. isolate the learners/researchers in that it does not allow them to read and know about the scientific discoveries and advancements reached worldwide.

**(SD=strongly disagree, D=disagree, U=undecided, A=agree, SA=strongly agree)**

N	Item	SD	D	U	A	SA
11	Since language is first and foremost only a means of communication, the same content delivered in French can equally be delivered in Arabic. Therefore, Arabic can be used to teach sciences					
12	Learning through Arabic has more advantages than learning through a foreign language					
13	The fact that I am used to Arabic since childhood as the language of school makes it better to learn sciences in Arabic					
14	It is better to offer higher education in scientific fields in Arabic with the teaching of French as a subject to enable the students develop adequate competence in such a language which is important in Algeria					
15	If I had the choice, I would continue my higher education in the same field but in Arabic					
16	If documentation is available in Arabic, I will be for the Arabization of sciences					
17	If teachers are keen on teaching sciences in Arabic, I will be for the Arabization of sciences					
18	I believe that we must be loyal and enthusiastic towards Arabization					
19	There must be a political decree (law) that requires the Algerian universities to use Standard Arabic in all fields of study, including sciences and technology					

**Section IV:**

N	Item	SD	D	U	A	SA
20	Independently from the availability or not of references and even if Arabic is a national symbol, French is more appropriate for the teaching/learning of sciences					
21	Arabic, unlike French, cannot handle scientific discourse; it is a language more appropriate for literature and poetry					
22	Scientific and technical subjects are easier to understand when they are taught in French					
23	Learning sciences in French is a key to high academic attainment					
24	French makes it easy to read and know about current scientific researches throughout the world					
25	Learning sciences in French is a key to international job market					
26	I wish I could develop high level of proficiency in French					
27	I want work/study abroad – therefore, I need French					
28	Good command of French, or other foreign languages, is a linguistic richness					
29	Knowledge of French alone is a limitation in that French is useful only in Francophone countries					
30	Being competent in French is not enough for further studies and research if one is not familiar with other languages, not least English					

**Thank you very much**

## Appendix C Teachers' Questionnaire (original version)

Cher professeur,

Vous êtes priés de répondre aux questions suivantes. Le fait que l'enseignant a un rôle majeur dans le processus d'enseignement/apprentissage rend nécessaire de tenir compte de ses attitudes dans la construction des politiques linguistiques avant toute étape de mise en œuvre.

### Renseignement personnels

Affiliation : .....

Expérience professionnel : .....

Education pré-universitaire:  Arabisant  Francisant  autre

### Section I:

1. Comment évaluez-vous la compétence des étudiants (au moins la majorité) en français?

bonne  plutôt bonne  plutôt faible  faible

2. La maîtrise du français des étudiants que j'enseigne n'est pas suffisante pour leur permettre d'étudier (biologie, mathématique, chimie...) en français de manière adéquate

oui  non  pas sûr

3. Parce que les étudiants sont habitués à l'arabe comme langue d'enseignement depuis l'enfance, l'enseignement dans une langue étrangère (français) constitue pour eux:

- Un problème majeur
- Un problème modéré
- pas de problème

4. Dans le cas où l'usage du français est un problème, à quel niveau?

1<sup>re</sup> année  1<sup>re</sup> + 2<sup>eme</sup> année  tous les étudiants de premier cycle

## **Section II:**

4. Indépendamment si vous pouvez le faire ou non, et en raison du fait que les étudiants sont habitués à l'arabe depuis l'enfance, l'utilisation de la langue arabe comme langue d'enseignement est censé de:

- |  | <b>oui</b>               | <b>non</b>               | <b>Pas nécessairement</b> |
|--|--------------------------|--------------------------|---------------------------|
| a. rendre l'acquisition de l'information et l'assimilation du contenu plus rapide, plus facile et plus profond   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |
| b. augmenter le degré de la participation des étudiants et de discussion dans la classe  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |
| c. créer l'harmonie entre la pensée et la production verbale chez les étudiants  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |
| d. renforcer l'intérêt des étudiants dans l'apprentissage  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |
| e. l'arabisation va entraver le développement scientifique et affecter négativement sur le niveau scientifique des étudiants   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |
| f. l'arabisation va isoler les apprenants/chercheurs en ce qu'il ne leur permet pas de lire et de connaître les découvertes scientifiques et les progrès réalisés dans le domaine scientifique au niveau international | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |

(PTA= Pas du tout d'accord      PA=Pas d'accord      N= Ni en désaccord ni d'accord  
 A=D'accord      TA=Tout à fait d'accord

<b>Item</b>	<b>PTA</b>	<b>PA</b>	<b>N</b>	<b>A</b>	<b>TA</b>
6. L'efficacité de l'apprentissage peut être mieux rencontrée par l'intermédiaire de la langue maternelle					
7. Le même contenu livré en français peut également être livré en arabe, car la langue est d'abord seulement un moyen de communication					
8. Théoriquement, il est possible d'utiliser l'arabe pour enseigner les sciences					
9. Je peux enseigner en arabe sans problème (en termes de					

compétences)					
10. Je peux enseigner en arabe, mais je peux faire face à des problèmes réels avec des équivalents de la terminologie scientifique					
11. Dans le cas où un décret politique imposant l'enseignement exclusif des sciences en arabe est mis en œuvre, je peux gérer et me former pour faire face à la nouvelle situation					
12. Si la documentation est disponible en arabe et si le temps qui m'est imparti est suffisant pour m'habituer, je suis pour l'arabisation des sciences.					
13. Je crois que nous devons être fidèles et enthousiastes envers l'arabisation					
14. Il doit y avoir un décret politique qui exige l'utilisation de l'arabe standard comme moyen d'instruction dans les universités algériennes dans toutes les spécialités, y compris les sciences					
15. Même si la langue de la recherche scientifique de la majorité des enseignants algériens est le français, je soutiens l'idée que chaque enseignant doit normalement participer à la politique d'arabisation en fournissant au moins une version arabe de son matériel de recherche (articles, manuels, etc.)					
16. Je ne m'oppose pas l'idée que l'éducation dans les domaines scientifiques sera offert exclusivement en arabe avec l'enseignement du français en tant que module en mettant l'accent sur la terminologie scientifique pour permettre aux étudiants de faire usage de documentations écrites en français					
17. Je crois que la maîtrise de l'arabe standard devrait être un critère dans le recrutement des professeurs d'université					

### **Section III:**

Item	PTA	PA	N	A	TA
18. Indépendamment de la disponibilité ou non de références et même si l'arabe est un symbole national, le français est plus approprié pour l'enseignement / apprentissage des sciences					
19. L'arabe ne peut pas gérer le discours scientifique; c'est une langue plus appropriée pour la littérature et la poésie					
20. Même si je peux enseigner en arabe, je m'oppose à le faire					
21. les ressources pour l'enseignement, par exemple les manuels et les livres, sont plus abondantes en français qu'en arabe					
22. savoir le français est suffisant pour me permettre de me tenir informé de récentes découvertes conduites dans le monde scientifique					
23. Le français est suffisant afin de développer une haute expertise dans le domaine de mes recherches					
24. Comme un enseignant chercheur qui connaît bien le français, je ne trouve pas la situation difficile en matière de conférences scientifiques internationales si je ne connais pas d'autres langues, notamment l'anglais					

**Merci infiniment**

## Teachers' Questionnaire (translated version)

Dear teacher,

You are kindly requested to answer the following questions. The fact that the teacher has a major role in the teaching/learning process makes it necessary to take account of his/her attitudes in making language policies before any implementation stage.

### Personal Data

Affiliation:

Work experience:

Pre-university education:  Arabic-educated     French-educated     other

### Section I:

1. Evaluate your students' competence in French

good                       quite good                       quite low                       low

2. The proficiency in French of the students that I teach is not adequate for them to study non-language subjects (e.g., biology, Mathematics, chemistry) in French.

yes                       no                       not sure

3. Because students are used to Arabic as language of instruction, teaching in a foreign language (French) constitutes for them:

- A major problem
- A moderate problem
- No problem

4. In case French is a problem, to what level?

1<sup>st</sup> year                       1<sup>st</sup> + 2<sup>nd</sup> year                       all undergraduate students



**Section II:**

5. Regardless of whether you can do it or not, and due to the fact that students are habituated to Arabic since childhood, the use of Arabic, compared to French, is supposed to:

- |  | yes                      | no                       | Not necessarily          |
|--|--------------------------|--------------------------|--------------------------|
| a. make students' acquisition of information and assimilation of the content quicker, easier and deeper.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. increase the degree of students' participation and discussion in the class  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. create harmony between students' thinking and speaking  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. bolster students' interest in learning  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Arabization will hinder scientific development and negatively affect students' scientific level   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Arabization will isolate the learners/researchers in that it does not allow them to read and know about the scientific discoveries and advancements reached worldwide | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(SD= strongly disagree, D=disagree, U=undecided , A=agree, SA=strongly agree

Item	SD	D	U	A	SA
6. Learning efficiency can be best met through the mother tongue medium					
7. The same content delivered through French can equally be delivered through Arabic since language is first and foremost only a means of communication					
8. Theoretically, it is possible to use Arabic to teach science					
9. I can teach in Arabic with no problem (in terms of competence)					

10. I can teach in Arabic but I may face real problems with equivalents of scientific terminology					
11. In case a political decree imposing the exclusive teaching of sciences in Arabic is implemented, I can manage and train myself to deal with the new situation					
12. If a good number of scientific documents (e.g. books) are available in Arabic and I am given enough time to be used to Arabic, I will be for the Arabization of sciences					
13. We must be loyal and enthusiastic towards Arabization					
14. There must be a political decree that requires the Algerian universities to use Standard Arabic as a medium of instruction in all fields, including sciences					
15. Even if the language of scientific research of the majority of Algerian teachers is French, I support the idea that every teacher should normally participate in the Arabization policy by providing at least an Arabic version of his research material (articles, manuals, etc)					
16. I do not oppose the idea that education in scientific fields will be offered exclusively in Arabic with the teaching of French (FSP) as a subject focusing on scientific terminology to enable the students make use of French-composed resources					
17. I believe that proficiency in Standard Arabic should be a criterion in the recruitment of university teachers					

**Section II:**

<b>Item</b>	<b>S</b> <b>D</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>
18. Regardless of the availability or not of references and even if Arabic is a national symbol, French is more appropriate for the teaching/learning of sciences					
19. Arabic cannot handle scientific discourse; it is a language more appropriate for literature and poetry					
20. Even though I can teach in Arabic, I oppose doing it					
21. Resources for teaching, e.g., textbooks and reference books, are more available in French than in Arabic					
22. French is sufficient for me to read about findings of most current researches conducted in the scientific domain worldwide					
23. French is enough for me to develop high expertise in my field of research					
24. As a teacher researcher who knows French well, I do not find the situation hard when it comes to international scientific conferences though I may not know other languages, not least English					

**Thank you very much**

## Appendix D

## Classroom Observation Results

### Section 1. Basic Descriptive Information

Observation date: DD/MM/YY

time: \_\_\_\_ to \_\_\_\_\_

Total number of students:  20 or fewer

21-40

40-60

60-80

80-100

100 or above

### Section 2: Rating of Students' Key Indicators

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all	1	2	3	4	To a great extent	5
1. Asking questions (more clarification/extra examples)							
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.							
3. Presenting alternative views to those raised by the lecturer							
4. Comments that encourage other students to speak							
5. Comments that clarify or summarize ongoing class discussion							
6. Responding to questions addressed by the lecturer during the class							
7. Students answers/questions are well-formulated							
8. Students answers/questions are agrammatical/not clear							
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher							
10. Students answers/questions are constituted of long strings							
11. Students are passive recipients of information from the teacher							

B. Total number of students' interactions: \_\_\_\_\_

**Section 1. Basic Descriptive Information**

Observation date: 14/09/2014 time: 10:00 to 11:30  
 Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all		To a great extent		
	1	2	3	4	5
1. Asking questions (more clarification/extra examples)		x			
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.	x				
3. Presenting alternative views to those raised by the lecturer	x				
4. Comments that encourage other students to speak	x				
5. Comments that clarify or summarize ongoing class discussion	x				
6. Responding to questions addressed by the lecturer during the class	x				
7. Students answers/questions are well-formulated			x		
8. Students answers/questions are agrammatical/not clear				x	
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher					x
10. Students answers/questions are constituted of long strings	x				
11. Students are passive recipients of information from the teacher					x

B. Total number of students' interactions: 09

**Section 1. Basic Descriptive Information**

Observation date: 21/09/2014 time: 10:00 to 11:30  
 Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all		To a great extent		
	1	2	3	4	5
1. Asking questions (more clarification/extra examples)		x			
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.	x				
3. Presenting alternative views to those raised by the lecturer	x				
4. Comments that encourage other students to speak	x				
5. Comments that clarify or summarize ongoing class discussion	x				
6. Responding to questions addressed by the lecturer during the class	x				
7. Students answers/questions are well-formulated		x			
8. Students answers/questions are agrammatical/not clear				x	
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher					x
10. Students answers/questions are constituted of long strings	x				
11. Students are passive recipients of information from the teacher					x

B. Total number of students' interactions: 11



**Section 1. Basic Descriptive Information**

Observation date: 19/10/2014 time: 10:00 to 11:30

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent					
	1	2	3	4	5						
1. Asking questions (more clarification/extra examples)											x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.											x
3. Presenting alternative views to those raised by the lecturer											x
4. Comments that encourage other students to speak											x
5. Comments that clarify or summarize ongoing class discussion											x
6. Responding to questions addressed by the lecturer during the class											x
7. Students answers/questions are well-formulated											x
8. Students answers/questions are agrammatical/not clear											x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher											x
10. Students answers/questions are constituted of long strings											x
11. Students are passive recipients of information from the teacher											x
<b>B. Total number of students' interactions: 7</b>											

**Section 1. Basic Descriptive Information**

Observation date: 02/11/2014 time: 10:00 to 11:30

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent					
	1	2	3	4	5						
1. Asking questions (more clarification/extra examples)											x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.											x
3. Presenting alternative views to those raised by the lecturer											x
4. Comments that encourage other students to speak											x
5. Comments that clarify or summarize ongoing class discussion											x
6. Responding to questions addressed by the lecturer during the class											x
7. Students answers/questions are well-formulated											x
8. Students answers/questions are agrammatical/not clear											x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher											x
10. Students answers/questions are constituted of long strings											x
11. Students are passive recipients of information from the teacher											x
<b>B. Total number of students' interactions: 17</b>											

**Section 1. Basic Descriptive Information**

Observation date: 16/11/2014 time: 10:00\_\_ to 11:30\_\_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)		x								
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.		x								
3. Presenting alternative views to those raised by the lecturer	x									
4. Comments that encourage other students to speak	x									
5. Comments that clarify or summarize ongoing class discussion	x									
6. Responding to questions addressed by the lecturer in class			x							
7. Students answers/questions are well-formulated			x							
8. Students answers/questions are agrammatical/not clear			x							
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher			x							
10. Students answers/questions are constituted of long strings		x								
11. Students are passive recipients of information from the teacher										x
B. Total number of students' interactions: 15										

**Section 1. Basic Descriptive Information**

Observation date: 23/11/2014 time: 10:00\_\_ to 11:30\_\_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)		x								
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.		x								
3. Presenting alternative views to those raised by the lecturer		x								
4. Comments that encourage other students to speak	x									
5. Comments that clarify or summarize ongoing class discussion	x									
6. Responding to questions addressed by the lecturer during the class		x								
7. Students answers/questions are well-formulated		x								
8. Students answers/questions are agrammatical/not clear									x	
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher									x	
10. Students answers/questions are constituted of long strings		x								
11. Students are passive recipients of information from the teacher										x
B. Total number of students' interactions: 14										



**Section 1. Basic Descriptive Information**

Observation date: 07/12/2014 time: 10:00 \_\_\_ to 11:30 \_\_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)										x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.	x									
3. Presenting alternative views to those raised by the lecturer						x				
4. Comments that encourage other students to speak	x									
5. Comments that clarify or summarize ongoing class discussion	x									
6. Responding to questions addressed by the lecturer during the class									x	
7. Students answers/questions are well-formulated							x			
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher									x	
10. Students answers/questions are constituted of long strings							x			
11. Students are passive recipients of information from the teacher										x
B. Total number of students' interactions: 19										

**Section 1. Basic Descriptive Information**

Observation date: 14/12/2014 time: 10:00 \_\_\_ to 11:30 \_\_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)										x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.										x
3. Presenting alternative views to those raised by the lecturer						x				
4. Comments that encourage other students to speak	x									
5. Comments that clarify or summarize ongoing class discussion	x									
6. Responding to questions addressed by the lecturer during the class									x	
7. Students answers/questions are well-formulated										x
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher									x	
10. Students answers/questions are constituted of long strings									x	
11. Students are passive recipients of information from the teacher										x
B. Total number of students' interactions: 22										

**Section 1. Basic Descriptive Information**

Observation date: 04/01/2015                      time: 10:00 \_\_\_ to 11:30 \_\_\_\_\_

Total number of students:  20 or fewer     21-40             40-60  
 60-80             80-100             100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)										x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.										x
3. Presenting alternative views to those raised by the lecturer										x
4. Comments that encourage other students to speak										x
5. Comments that clarify or summarize ongoing class discussion										x
6. Responding to questions addressed by the lecturer during the class										x
7. Students answers/questions are well-formulated										x
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher										x
10. Students answers/questions are constituted of long strings										x
11. Students are passive recipients of information from the teacher										x
<b>B. Total number of students' interactions: 23</b>										

**Section 1. Basic Descriptive Information**

Observation date: 11/01/2015                      time: 10:00 \_\_\_ to 11:30 \_\_\_\_\_

Total number of students:  20 or fewer     21-40             40-60  
 60-80             80-100             100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)										x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.										x
3. Presenting alternative views to those raised by the lecturer										x
4. Comments that encourage other students to speak										x
5. Comments that clarify or summarize ongoing class discussion										x
6. Responding to questions addressed by the lecturer during the class										x
7. Students answers/questions are well-formulated										x
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher										x
10. Students answers/questions are constituted of long strings										x
11. Students are passive recipients of information from the teacher										x
<b>B. Total number of students' interactions: 25</b>										

**Section 1. Basic Descriptive Information**

Observation date: 08/02/2015 time: 10:00 \_\_\_ to 11:30 \_\_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)									x	
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.	x									
3. Presenting alternative views to those raised by the lecturer								x		
4. Comments that encourage other students to speak	x									
5. Comments that clarify or summarize ongoing class discussion	x									
6. Responding to questions addressed by the lecturer during the class									x	
7. Students answers/questions are well-formulated									x	
8. Students answers/questions are agrammatical/not clear									x	
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher									x	
10. Students answers/questions are constituted of long strings	x									
11. Students are passive recipients of information from the teacher										x
<b>B. Total number of students' interactions: 26</b>										

**Section 1. Basic Descriptive Information**

Observation date: 15/02/2015 time: 10:00 \_\_\_ to 11:30 \_\_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)									x	
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.									x	
3. Presenting alternative views to those raised by the lecturer									x	
4. Comments that encourage other students to speak									x	
5. Comments that clarify or summarize ongoing class discussion									x	
6. Responding to questions addressed by the lecturer during the class										x
7. Students answers/questions are well-formulated										x
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher										x
10. Students answers/questions are constituted of long strings										x
11. Students are passive recipients of information from the teacher										x
<b>B. Total number of students' interactions: 16</b>										

**Section 1. Basic Descriptive Information**

Observation date: 01/03/2015 time: 10:00 \_\_ to 11:30 \_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)										x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.										x
3. Presenting alternative views to those raised by the lecturer										x
4. Comments that encourage other students to speak										x
5. Comments that clarify or summarize ongoing class discussion										x
6. Responding to questions addressed by the lecturer during the class										x
7. Students answers/questions are well-formulated										x
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher										x
10. Students answers/questions are constituted of long strings										x
11. Students are passive recipients of information from the teacher										x
<b>B. Total number of students' interactions: 23</b>										

**Section 1. Basic Descriptive Information**

Observation date: 08/03/2015 time: 10:00 \_\_ to 11:30 \_\_\_\_

Total number of students:  20 or fewer  21-40  40-60  
 60-80  80-100  100 or above

**Section 2: Rating of Students' Key Indicators**

A. Rate each of a number of key indicators from 1 (not at all) to 5 (to a great extent)

	Not At all					To a great extent				
	1	2	3	4	5	1	2	3	4	5
1. Asking questions (more clarification/extra examples)										x
2. Contributions which display connections students see between content in this course and other experiences or courses they have had.										x
3. Presenting alternative views to those raised by the lecturer										x
4. Comments that encourage other students to speak										x
5. Comments that clarify or summarize ongoing class discussion										x
6. Responding to questions addressed by the lecturer in class										x
7. Students answers/questions are well-formulated										x
8. Students answers/questions are agrammatical/not clear										x
9. Students code-mix or code-switch (French to Arabic) when interacting verbally with the teacher										x
10. Students answers/questions are constituted of long strings										x
11. Students are passive recipients of information from the teacher										x
<b>B. Total number of students' interactions: 21</b>										

## **ملخص**

تثير هذه الأطروحة مسألة شائكة تتعلق بالسياسة التعليمية في الجزائر. يركز البحث الميداني على إحدى النقاط الرئيسية و المتمثلة في التحول المفاجئ في لغة التدريس من اللغة العربية المستعملة خلال مختلف الأطوار التعليمية ما قبل الجامعة إلى الفرنسية كلغة للتدريس في الفروع العلمية والتكنولوجية في الجامعة. باستخدام عدد من أدوات البحث، يتم فحص وتقييم مواقف الطلاب والأساتذة تجاه استعمال اللغة الفرنسية في كلية علوم الطبيعة والحياة وعلوم الأرض في جامعة تلمسان. علاوة على ذلك، يحاول هذا البحث قياس مواقفهم تجاه تعريب العلوم على المستوى الجامعي.

## **كلمات مفتاحية :**

التخطيط و السياسة اللغوية، المواقف اللغوية، لغة التدريس، التعريب.

## **Summary**

The present thesis raises a thorny issue related to language in education policy in Algeria. It revolves around the abrupt switch in the language of instruction: from Arabic at pre-university stages to French as a medium of instruction in scientific and technological fields at the university. By means of a number of research tools, the research examines students' and teachers' attitudes towards this linguistic policy characterized by an exclusive use of French at the Faculty of Biology and Geology in Tlemcen University. Also, central to the investigation is measuring their attitudes towards the Arabization of sciences at university level.

## **Key words:**

Language planning and policy, language attitudes, medium of instruction, Arabization

## **Résumé**

La présente thèse soulève une question épineuse liée à la politique éducationnelle en Algérie. Un point capital de notre recherche s'intéresse au changement brusque de la langue d'enseignement: de l'arabe durant l'étape pré-universitaire vers le français comme langue d'instruction dans les branches scientifiques et technologiques à l'université. En utilisant certain outils de recherche, l'enquête examine et évalue les attitudes des étudiants et des enseignants envers l'utilisation du français à la Faculté de Biologie et de Géologie à l'université de Tlemcen. En outre, leurs attitudes envers l'arabisation des sciences au niveau universitaire sont mesurées.

## **Mots clés :**

Planification et politique linguistique, attitudes linguistiques, langue d'enseignement, arabisation.

## Summary of the Thesis

The present research examines the language education policy in Algeria with focus on the medium of instruction in the Algerian school. After the implementation of a steady Arabization policy since the early years of independence, Standard Arabic could progressively replace French and has become the exclusive medium of instruction in the pre-university stage since the late 1980s; French is now no other than a subject of instruction (foreign language).

Four chapters make up the construct of this dissertation. The first chapter goes around the relevant literature and sets the explanatory frame of other chapters. It is, in turn, made up of two subsections. The first one sketches a number of key-concepts about language planning. The second subsection provides a general overview of the concept of *attitude* from a linguistic perspective, i.e. language attitudes. It outlines basic notions about (language) attitude formation, change, measurement and the attitude-behaviour relationship. It ends up with the importance of language attitudes in the pursuit of language planning, i.e. LPP from a social psychology standpoint.

The second chapter discusses the language situation in Algeria. The linguistic policy of Arabization is reviewed from a broad perspective. The three main languages, namely Arabic, Berber and French are discussed separately. As far as Arabic is concerned, the discussion concerned primarily diglossia and its negative impact on quality education. Building on the verity that Dialectal Arabic is the genuine mother tongue of Arab children, many calls were/are voiced to use such a variety in schools at the cost of, or in parallel with, Standard Arabic. Although such old enterprise has been long encouraged, all previous efforts proved to be in vain. In fact, promoting the vernacular is no easy task as it requires passing through a language standardization process; each of its steps is not without complications. Besides linguistic constraints, the vernacular is socially downgraded, and any attempt to introduce it in schools would receive strong social rebuff; this is often

interpreted as a 'plot' against the language of the Quran, i.e. Standard Arabic. As such, a procedure that works the other way round is probably the only alternative to get around the diglossic issue in education. To put it another way, children must be introduced to Standard Arabic as young as possible (before the school-age) so as to allow a kind of natural acquisition to take place as children come to the world equipped with an innate predisposition to acquire language. This capacity is very high at early ages to the extent that two or more languages can be simultaneously acquired. However, psycholinguistic research reveals that the brain's plasticity to acquire languages decreases after about age five to six as the brain moves to cognitive development.

The second point concerning Arabic relates to lexical modernization. Standard Arabic, like other languages, needs modernization of its vocabulary so as to meet the necessities of contemporary communication. However, Arabic still suffers a great deal at this level, and the problem basically lies in the difficulty to meet terminology unification across the Arabic-speaking countries; this has resulted in a chaotic lexical situation. It goes without mentioning that lexical variation in the scientific or technical register is a major flaw as the existence of more than one word to label the same object or concept makes the language users experience confusion and may fall in the trap of misunderstanding.

As for minorities' linguistic rights, Tamazight has made a noteworthy step onward. Old demands for recognition could be finally met as it is now a 'joint official' language alongside Arabic. Behind the status, Tamazight still faces serious challenges at the other three planning dimensions, however. In terms of corpus planning, the language is still undergoing a development process. The orthographic representation remains a controversial, unsolved question in the light of the persistence of three proposals: Arabic, Latin and Tifinagh alphabets. As for acquisition planning, Tamazight is no other than an optional course which fails to attract the attention outside its native borders. Subsequently, prestige/image planning efforts are required to foster positive attitudes since Tamazight still misses

the instrumentality value of a language; a sound reason behind the disinterest of the important (Arabophone) population in learning such a language.

As far as French is concerned, its *de jure* status does not match the *de facto* status. Although it is politically considered a foreign language, French is linguistically omni-present in all walks of life, ranging from services of the central government to the day-to-day linguistic practices of individuals. Suffice it to mention that it is still the dominant/exclusive language in scientific and technological institution of higher education.

The third chapter was devoted to the methodology underlying the case study which was conducted to provide answers for the research questions and to confirm, or nullify, the proposed hypotheses. The study was undertaken in the Faculty of Biology and Geology at Tlemcen University, Algeria, where a sizeable sample population could be covered. As for data elicitation techniques, the study bet on the mixed methods approach in which classroom observation, semi-structured interviews and closed-ended questionnaires were employed. Interpretably, attitudes were measured *directly* (direct approach). With the intention to meet the standards of reliability and validity, the research variables were cross-checked not only using different instruments but also from different resources (teachers and students).

Quantitative and qualitative analysis of the data yielded important conclusions. Regarding the first research question, the findings revealed a glaring verity in the sense that the (abrupt) switch in the medium of instruction, from only-Arabic to only-French, has a severe impact on the learners enrolled in scientific fields. The Results demonstrated that efficient learning remains the wish as it actually is beyond the reach. French as MI constitutes a serious barrier for the vast majority of students though they have known it as a compulsory subject of study for a significantly long time, i.e. since their primary school. Such findings can be explained in the light of language learning theories. Cummins (1981a; 1989) accentuates two levels of language proficiency: *Basic Interpersonal Communication Skills* (BICS) and *Cognitive Academic Language Proficiency* (CALP), with the former referring to second language skills needed for everyday communication



activities and the latter required, as the name implies, for learning and performing academic tasks effectively. In our case, the students' BICS only remain *relatively* developed. This translates that the students cannot competently use French to interact socially with people.

The first conclusion that can be drawn from such findings is that teaching French as a foreign language (FLE) remains frail to produce competent bilinguals. The fact that French is taught since the third grade and that learners have known French for at least ten years before joining the university, allow one to argue with poise that such learners must have developed significant bilingual competence on their leave of the secondary school. Since this actually is not the case, the issue is attributed to, at least partially, the foreign language teaching policy which can only be described as inefficient, inept and weak. The blame might be put on the macro agency where policy is made (i.e. ministry of education) as it might concern the micro level where implementation takes place (the school and the classroom teacher). The outgrowth of such a LiEP is no more than unbalanced, coordinate bilinguals.

If the students' BICS in French are not adequately developed, the CALP is automatically immature as the CALP builds on the BICS besides higher levels of cognitive processes (Chamot, 1981; Cummins, 1982). This translates that first year science students do not possess the language proficiency required for effective learning. Hence, it becomes almost surprising that the students struggle with the language of instruction more than content learning.

As far as students' language attitudes are concerned, a convincing discussion of the students' attitudes towards Arabic and French should not exclude what Fishbein and Ajzen (1974) call levels of specificity (Cf. section 1.3.2.4). Attitudes towards Arabic or French as languages (general attitudes), attitudes towards learning these languages, and attitudes towards learning *in* these languages (specific attitudes) have different levels of specificity. Hence, the discussion of the results should take account of attitudes towards either language within the same level of specificity otherwise it would impoverish the findings. Therefore, the discussion of

the results should concern two levels: (i) Arabic and French as media of instruction, and (ii) the value of either language at the international scale.

As far as the medium of instruction is concerned, students expressed extremely positive attitudes towards the use of Arabic. They, in parallel, denounced the current learning situation characterized by an *exclusive* French-based instruction. Their answers to the most central questions were definite and showed an obvious preference to learn sciences in Arabic as they used to do during their pre-university education. They made the point stronger when a clear majority further supported the imposition of Arabic, through exigent political decrees, in all institutions of higher education. Their approval of Arabic, and simultaneous disapproval of French, could be caught in their answers to a fundamental question which was cross-checked by the questionnaire and the interview, and which revealed that the great majority of them admitted unhesitatingly that they would choose to further their higher education in Arabic if they had been offered the choice. This translates that students are actually not freely motivated to learn sciences in French; they are only forced since no other option is provided. This is one of the chief shortcomings of this *micro* linguistic policy initiated (and implemented) by the institution under study as it does not regard seriously learners' actual needs and attitudes. It goes without mentioning that learners constitute an important component in the overall language-in-education policy as they are directly concerned with decisions of the policy-makers. As such, an account of students' needs is a must when forming policies.

An explanation of learner' attitudes towards either language may build on the *functional theory* which relates (language) *attitude formation* to psychological needs. In this respect, it becomes no wonder that students exhibited positive attitudes towards an Arabic-based instruction simply as a result of the learning advantages that Arabic offer (profound comprehension, less cognitive load, etc), i.e. Arabic is the language that the students are most comfortable with. By contrast, they formed negative attitudes towards the use of French in instruction as French does not meet their learning needs (at least at this learning stage). This is of course

not because a language is apt to serve instruction and the other is not; the issue largely lies in the fact that such learners are linguistically proficient in Arabic (MI since the first days at the school) and profoundly incompetent in French (largely passive bilinguals). The point which should be raised is that although positive or negative attitudes towards French as MI were *largely* defined by students' command of French, this is not the sole factor which determines the attitudes. In fact, religious, ethnic, historical and political factors are also worth considering.

As for teachers' attitudes, on the basis of the results achieved through the questionnaire and the interview as well, and which displayed noteworthy conformity, it is obvious that teachers' pre-university education is not a *defining* variable which determines their attitudes towards the Arabization of sciences in that responses to the most central attitudinal items did not reveal significant differences among the two categories of teachers. Thus, the third hypothesis which puts forward that the arabisants may approve of Arabization, whereas the francisants are more likely to reject such a language policy is nullified. Instead, opposing Arabization was sometimes, at least overtly, stronger on the part of the arabisants.

The data illustrated that a number of teachers (including the arabisants and the francisants) not only implicitly but rather explicitly disapproved of the Arabization of sciences; their responses to the *direct* items/questions, especially those including conditions under which Arabization can be implemented revealed blatant rejection. Because attitudes were measured through direct methods, including the (anonymous) questionnaire but most importantly semi-structured interviews conducted *face to face*, these teachers are said to have expressed their *true* attitudes as they did not seek to meet what might seem socially-desirable answers (recall that Arabic is the (socially) sacrosanct language as well as the State's official language). If such results are achieved through *direct measurement* of language attitudes, they do endorse the validity of the findings.

The data also exposed that a significant portion of teachers did not approve of even the basic items/questions. For instance, a sum of about 40.9% of the sample population did not agree that the content conveyed through French can equally be delivered through Arabic. Besides, only 59.1% agreed that Arabic can, *theoretically*, be used to teach sciences. On the ground of the linguistically acknowledged notion that *all* languages (including non-standard varieties) are of equal status as long as they fulfill communication, it would be unsound to assert that Arabic is not *equally* apt to deliver content subjects, especially that it is a standard language with oral and written traditions. This is made stronger if we consider that Arabic is *actually*, but certainly *not theoretically*, the MI in all fields of study (literary or scientific) in the pre-university stage. Further, it is also the language of teaching and learning in a number of scientific and technological institutions of higher education across the Arab World, including some Algerian instances.

On the basis of the findings, approval or disapproval of either language was found to be firmly related to its value at the international level. When no alternative other than Arabic and French were posed, the majority of teachers displayed clear preference to French. When indications to English were provided, teachers did not hesitate to admit that ignorance of English is a limitation which seriously handicaps their research career. Their earlier approval of French swiftly shrank when English came into mention though all teachers admitted to have a limited to no control over English.

This leads us to conclude that the more a language is found functional outside its native borders, the more it gains approval. However, approval of a language does not automatically imply developing positive attitudes towards that language, i.e. one who approves the importance of X language (English in this case) may neither like English (general attitude) nor learning it (specific attitude) - Recall that the attitude is of a tricomponential structure (cognitive, affective and behavioural) and that consistency between these components may or may not hold

(see section 1.3.1). Technically, what is evident is that if approval of English is not analytically a positive attitude, it is certainly a positive *belief* (cognition).

Approval of French at the cost of Arabic, just like approval of English over French and Arabic, can be adequately discussed within the *functional theory*, precisely the *utilitarian/instrumental* function. Teachers' attitudes, or at least beliefs, develop on the basis of how the attitude object (languages in this case) meets their wants. Although the majority of teachers acknowledged that the use of Arabic as MI would render a lot of advantages to learners, Arabic seemingly does not offer teachers many/any advantages. By contrast, French understandably furnishes at least some advantages (e.g. rich learning resources, training programmes abroad, etc). They did not approve of French outside the classroom, i.e. as language of research just because they find themselves at a disadvantage if they do not know English. As such, it becomes no wonder that teachers form positive attitudes towards the language that best meet their psychological needs.

Positive attitude towards French can also be explained in the light of classical conditioning theories, especially within Zajonc's (1968) mere-exposure effect theory, also known in social psychology as the familiarity principle. Zajonc (ibid), among others, states that "mere repeated exposure of the individual to a stimulus is a sufficient condition for the enhancement of his attitude toward it" (p.1). If we accept this, it becomes natural for teachers to demonstrate positive attitudes towards the language they use most frequently. For the francisants, French has always been the language of learning and teaching. Although the arabisants had probably faced serious problems with French as beginning university students, frequent exposure to French (as students) then repeated use of it (as teachers) is supposed to lead them develop positive attitudes towards it.

Of importance to this discussion are those who expressed positive attitudes towards Arabization as it is of prime significance to explore whether these *overt* attitudes match, or differ from, real (*covert*) attitudes. A consideration of, for example, responses to item 18 of the questionnaire (cf. table 4.15) may divulge crucial facts. Most teachers, especially the arabisants (90.90% as opposed to 63.6% of the francisants), revealed *explicitly* that French is more appropriate than Arabic for the teaching of sciences. Such responses do bear, *implicitly*, negative attitudes towards Arabization since a clear majority of them (8 arabisants and 5 francisants) had already agreed that Arabic is capable of handling scientific discourse and admitted that Arabic can, at least theoretically, act as a language of instruction. If such a claim is validated, one would be hard pressed to deny that all the arabisants, but one, bear, either explicitly or implicitly, negative attitudes towards Arabization. The same inference applies to no less than 7 francisant teachers.

The use of a language in instruction is doomed to failure if the implementers, i.e. the classroom teachers, do not fully master that language. The questionnaire results revealed that of the 22 teachers 15 declared their ability to lecture in Arabic though they may be faced with the issue of the equivalent Arabic terminology. Under a supposedly *de jure* imposition of Arabic, this number increased (see table 4.13). The point here is that if one *cannot* teach in Arabic, he would, rationally, not be able to do so under coercion otherwise the proclaimed inability would be more likely and logically interpreted as nothing but an act of *unwillingness* to use, or learn, Arabic though the items (10 and 11) addressed the ability and not the willingness to teach in Arabic. If this is the case, comparison between results of the different questionnaire items allowed capturing *hidden* negative attitudes towards the use of Arabic, typically on the part of the arabisants. This contrasts with the francisants (4 respondents) whose responses remained unchanged revealing an inability to lecture in Arabic, whether willingly or under political pressure. As to these results, a kind of peculiarity surfaces in that two thirds of the francisants asserted that they are able of lecturing in Arabic. These are in fact encouraging findings as these teachers had been raised in an almost French-based school system; it is not surprising that some of them (1/3) negated the ability to teach in Arabic.

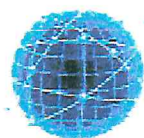
The peculiarity is rather when some of the arabisants stated overtly the inability to use Arabic and did not only confine the issue to the Arabic scientific terminology; such teachers knew only Arabic as MI (and French as a subject of instruction) during their pre-university schooling. To what extent what they averred is true was not probed.

To sum up, the mentalists insist that attitudes drive behaviour, or at least, as Holland *et al.* (2002) put forward, strong attitudes guide behaviour while weak attitudes follow behaviour. If this is the case, it is possible to gauge teachers' covert attitudes in that these are supposedly mediated by their linguistic behaviour. If no consistency holds between the overtly-stated positive attitudes and the visible behaviour, then these attitudes might strongly be considered explicit which are not automatically real. In fact, accepting Arabization speculatively, though is a necessity for successful implementation, does not translate straightforwardly to eagerness to engage in concrete contribution.

As far as the macro level in Algeria is concerned, there is no jurisprudence which states that French should be used as MI. The truth is that there are legislative measurements that impose Arabic as MI; suffice it to mention that the law of January 1991, which was reinstated in December 1996, defined July 5th 2000 as the date for generalizing Arabic in education, including the university (still on hold). Therefore, one may confidently argue that French is fundamentally perpetuated in sciences and technology on the ground of the teachers' *want*. Subsequently, if science teachers were truly convinced of the workability of Arabization, they would have taken steps towards actual implementation. Other fields, such as sociology, anthropology, economics, commerce, to name but a few, have all been entirely arabized in the different universities countrywide because teachers were willing actors (either as policy makers or policy implementers). The University of Bejaia (Kabylia region), which actually forms the exception, still offers all the fields (literary, scientific and technological) exclusively in French to the exclusion of the departments of Law and Arabic which are wholly arabized. If Arabization did not cover such institution of higher education, this mainly is because the (majority of)

teachers were not eager to accept, and participate in, the making/implementation of Arabization. This reflects the importance of teachers' willingness in the making (as micro agents) and/or implementation (of macro legislation) of policies. The fact that no top-down linguistic law or regulation imposes the exclusive use of French to teach sciences leads to the conclusion that the agency of language planning resides in the micro level, i.e., teachers in the institution under study are the major actors in the making of the language policy.





# *IOSR Journal of Humanities and Social Science*

## **IOSR Journals**

International Organization  
of Scientific Research

e-ISSN : 2279-0837

Volume : 19 Issue : 11 (Version - VII)

p-ISSN : 2279-0845

**IOSR-JHS**

### **Contents :**

<b>Attitude of Headmasters and Teachers towards the Right to Education Act (2009), India</b> Srikanta Mandal & Pranab Barman	<b>01-09</b>
<b>A Study on "Challenges in Controlling Unit Cost of Higher Education in Kuvempu University"</b> Gowamma H.C., Dr. K.S. Sarala,	<b>10-15</b>
<b>Mandailing Phonological Variation in Mandailing Natal Regency</b> Sholihatul Hamidah Daulay, Robert Sibarani, Nadra, Matius C.A Sembiring	<b>16-22</b>
<b>Relationship between Adversity Quotient and Academic Problems among Student Teachers</b> Dr Usha Parvathy, Praseeda M	<b>23-26</b>
<b>Gender Inequality and Women Discrimination</b> Andrey Shastri	<b>27-30</b>
<b>Effect of Concept Mapping on Pedagogic Content Knowledge of Elementary Student Teachers</b> Ragisha.K.K, Dr. K. Abdul Gafoor	<b>31-35</b>
<b>Tracing the Development of the Role of 'Matriarchal Figures' in Shashi Deshpande's Selected Novels</b> Dr. Sujata Bamane	<b>36-39</b>
<b>Revisiting Case Study Method of Social Research Examining Its Cardinal Attributes and Its Potential for Generating Authoritative Knowledge</b> Arya Priya	<b>40-44</b>
<b>Portrayal of an Execrable Violence in Joyce Carol Oates' Demon</b> Dr. C. Govindaraj, Dr. V. Kundhavi, R. Lissy	<b>45-47</b>
<b>Does the Use of Metacognitive Strategies Influence Students' Problem Solving Skills in Physics?</b> Shareeja, Ali. M. C., & Gafoor, Abdul. K	<b>48-51</b>
<b>Diglossia's Stability in the Arab World: Algeria as an Instance</b> Taoufik Djennane	<b>52-56</b>
<b>A Theatre of their Own: Indian Women Playwrights and Directors in Perspective</b> Pinaki Ranjan Das	<b>57-60</b>

## Diglossia's Stability in the Arab World: Algeria as an Instance

Taoufik Djennane

Department of English, Tlemcen University, Algeria

**Abstract:** Built upon Ferguson's (1959/1972) and Fishman (1967) conceptualizations of diglossia, the present paper is dedicated to characterize diglossia in relation to Arabic. It is momentous to mention that, following several political, social, economic, and academic changes, the sociolinguistic situation in the, at least some, Arab nations does not seem to follow strictly Ferguson's original framework. The paper specifically inspects 'stability', one, out of nine, important rubric in the discussion of diglossia. To do so, Algeria is considered as a case in point. The discussion goes through the following stages: introduction of diglossia, characterization of diglossia in Algeria, then diglossia's stability.

**Keywords:** Arabic dialects, dialect promotion, polyglossia, stability, Standard Arabic, prestige.

### I. Introduction

Although William Marçais [1] was the pioneer to introduce the term 'diglossie' to describe the linguistic situation in the Arab World (la diglossie arabe), diglossia as a sociolinguistic concept gained general currency with Ferguson [2] in his seminal article of 1959. Ferguson [3] used the term to refer to a situation where two varieties of a language exist side by side throughout the community, with each having a definite role to play. Explaining diglossia, Ferguson [2] identifies four speech communities: the Arab World, Greece, German-speaking Switzerland, and Haiti, considering them as being representative of the phenomenon. His definition makes a division between a High (henceforth H) variety and a Low (hereafter L) variety- both are linguistically related to, but significantly different from, one another. Therefore, diglossia is not bilingualism.

Ferguson [2] proceeds to explain the sociolinguistic condition under nine rubrics which are prioritised according to function, prestige, literary heritage, acquisition, standardization, stability, grammar, lexicon, and phonology. The functional linguistic distribution, or the specialisation of function, is the 'existential' feature of diglossia. The two discrepant varieties are kept separate and used in different settings and for different purposes. To characterise the H and L varieties does not pose a problem, suffice it to say that "H and L have disjoint functions: where H is appropriate, L is inappropriate and vice versa" (Sebba [4]).

What should be stressed is that Ferguson's conceptualization is not always valid nor it is enough comprehensive to cover all diglossic speech communities for it has a number of flaws which have since been pointed out. In some situations, the nine rubrics listed above meet what Ferguson suggests, in some others only some rubrics are met while the others are missed. For instance, when dealing with Fergusonian criterion of prestige in Switzerland, Hogg et al. [5] argue that we would maintain that High German is *not* afforded greater prestige or status than Swiss German, and therefore that German Switzerland does not constitute an example, or indeed defining case, of diglossia.

### II. Fishman's Further Elaboration

By 1967, Ferguson's original discussion had undergone some changes, when the American sociologist of language, Fishman [6], refined the definition in two basic directions:

1. While Ferguson restricts the concept only to two closely related varieties, Fishman proposes that diglossia may be extended to cover even situations where two (or more) *genetically unrelated* or at least historically distant language varieties occupy the H and L niches (Schiffman [7]). However, in such a situation Fishman emphasizes a tidy distinction between diglossia and bilingualism, arguing that the former is a feature of society to be dealt with by sociologists and sociolinguists, whereas the latter is a matter for psychologists and psycholinguists as it refers to an individual's ability to behave linguistically in more than one language.
2. Fishman also broadens the concept of diglossia to encompass even monolingual societies "which employ separate dialects, registers, or *functionally differentiated language varieties of whatever kind.*" (Fishman [8]).

Under these two new guidelines, Fishman perceives diglossia in a spectrum ranging from two closely related varieties, along with different stylistic differences, to two (or more) completely distant languages. This further consideration is referred to as *extended diglossia*. However, not all scholars share the view with Fishman as far as the second point (monolingual speech communities) is concerned. What is worth considering is that both Ferguson and Fishman share a common view as far as the functional specialization is concerned. Both

insist on the core theoretical claim, with H being reserved for formal contexts and L designed for informal purposes.

### III. Characterizing Diglossia In Algeria

Belonging to the Arabic-speaking World, Algeria, being in no way the exception, is a *de facto* diglossic community. In classical terms, i.e. Ferguson's description [2], Standard Arabic, SA for short, has the H stand and function, whereas Algerian Arabic (hereafter AA), a number of mutually intelligible regional dialects represents the L variety (what is said about Algeria as far as Standard Arabic and Algerian Arabic are concerned perfectly applies to most other Arabic-speaking countries). SA, being constitutionally recognised as the sole official language of the State, is allocated to formal usage. It is employed in literacy and for literary purposes, delivering religious preaches, broadcasting news and so forth. AA is ascribed to informality, typically used in casual conversations and daily interaction. It is also used in folk literature, informal TV and radio programmes (soaps), in captions and caricature on political cartoons in newspapers, and also in advertising. However, it is of significance to mention that overlaps that nullify the complementary distribution of SA and AA are abundant in that H and L are not always kept separate. For example, in an informal context such as a family meeting, though AA is undoubtedly the prevalent variety, if a topic including, for example, science is to be discussed, SA would be extensively used for the simple reason that education is conducted in SA. AA lacks scientific terms and therefore speakers find it a necessity to code-switch back and forth between the H and L so as to compensate for such a linguistic gap. Again, while Ferguson insists that the function dictates the choice of the linguistic variety, counter examples are ample. Ferguson [2] claims that political speech is presented in H, but it actually appears in the two forms of Arabic. Many times, politicians, be competent or not in SA, favour AA to address the mass as they see AA the language of the people and hence more appropriate to get the message across.

Regarding prestige, SA is perceived as a superposed variety and seen as the correct language. The high prestige it enjoys is due to its direct relation with the Quran (Muslims Holy book) and a number of religious texts making it a venerated and sacred language. It is also highly valued by virtue of its association with a bulk of literature ranging from the most traditional pre-Islamic poetry to the very contemporary writings. On the other hand, though AA is the natural spoken vehicle in the home and the street, it is often referred to as *dialect*, *colloquial* or *vernacular*, and felt to be less worthy, simply an aberration of the norm. It is not uncommon to hear someone saying: [ka:n jahdar balluya], to mean 'he was using the language'. The word [*alluya*] ('language'), which means in this context 'the standard form', is reserved only to the highly esteemed variety (SA). These attitudes remain societal judgments and perceptions, however. It follows that, on linguistic grounds, all varieties have the same footing as far as they fulfill communicative tasks.

Again, like other diglossic communities, SA is the native tongue of no sector in the society. It is a 'learned' form accessible through schooling. In other words, those who do not attend school or any kind of educational institutions such as *alkuttub* (a religious school) generally will not have access to SA. This is in sharp contrast with some Western societies, like France, England, and Germany ('standard-with-dialect' contexts), where the Standard variety is acquired as the mother language by a significant portion of the total population.

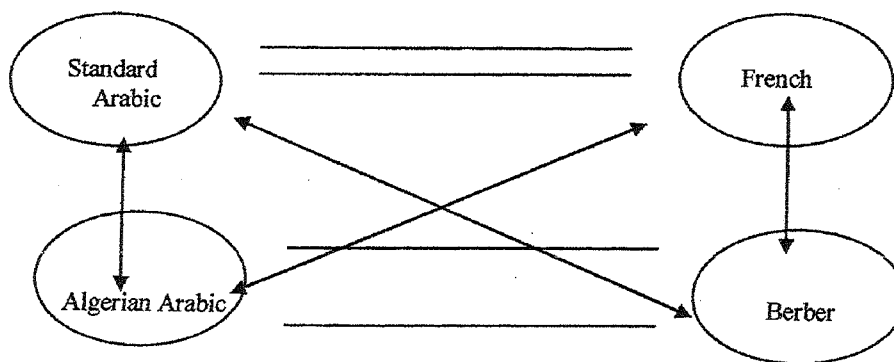
Another crucial point is that SA is more stable, being protected from change as a result of its association with writing and education. AA is more localized and displays dialectal variations, however.

Since Algeria is a linguistic market where at least three languages, namely Arabic, Berber and French compete one another in various domains and in different regions making societal multilingualism the general condition rather than the exception, Algeria not only represents classic diglossia but is also a defining case of extended diglossia. The rationale for this is that French, though it has no constitutional stand, is a functioning language that fulfills formal and official linguistic tasks along with SA. Considering higher education as an instance, French is indeed the medium of instruction in a number of faculties in the Algerian university. Lectures in technical and scientific majors, such as civil engineering, architecture, computer sciences, biology, etc. are all exclusively conducted in French. In such contexts, French is allocated to formal usage, namely the classroom interaction and thus has the H function; Algerian Arabic is the L variety used amongst students outside the classroom in natural interactions. It should be noted here that if SA is to be regarded vis à vis French, both are considered H varieties with high prestige (bilingualism in such a situation). If teaching in scientific and technical fields is done in French, SA is the medium of instruction in other fields, such as commerce, economy, law, etc. And thus the H-L relationship is to be considered with regard to AA instead of SA. Beyond the educational sphere, the Algerian speech community is practically bilingual and speakers use Arabic, whether Standard or dialectal, and French according to their assigned functions and prestige. Algeria thus provides an illustration of what Fishman [6] calls in his theoretical construction 'diglossia with bilingualism' at the national level.

In fact, diglossia in Algeria also deserves to be discussed in relation to Berber, or as they are locally called Amazigh, communities since the Berber/Tamazight language has recently (2002) gained the status of

'national' language. In such communities, like Great Kabylia, Shaouia, Beni Mzab, etc, 'extended triglossia' is a widespread phenomenon. SA and French, like the rest of the country, are used in government official domains, administration and education, whereas Kabylie, Shaoui and Mzabi, Berber varieties that are historically distant to Arabic and French, play the role of the L variety being the natural everyday communication vehicles. Here, it is of prime importance to mention that attitudes toward SA or French may differ among individuals, and there is no guarantee that they are perceived as the superposed, prestigious varieties.

In sum, the following diagram provides a simple, yet interesting, characterization of diglossia in Algeria:



**Figure 1. Characterization of diglossia in Algeria**

The above mentioned figure reveals an interesting fact: (1) classic diglossia is commonly attested in Arabophone regions with regard to SA and AA; (2) again, extended diglossia concerns basically Arabophone areas where French (and also SA) is the H variety and AA is the L variety; (3) extended triglossia is a unique feature of Berberophone regions where both SA and French represent H and Berber is the de facto L variety; (4) Algerian Arabic is also used in Berberophone areas either for local communication or typically for interaction with Arabophone speakers, such as in commerce- This is a form of bidialectalism; (5) though French may also be used in informal contexts, such as the street and the family, both SA and French are regarded as H varieties that hold high esteem (of course this can also be interpreted as a form of societal bilingualism).

Under a number of circumstances, the designation 'stability', which constitutes one rubric in Ferguson's [2] discussion, seems to follow new directions as it will be shown below.

### III. Diglossia's Stability

Ferguson's [2] [3] definition of diglossia assumes that it is a relatively stable language situation. Diglossia is not ephemeral in nature, according to Wardhaugh [9], but it appears to be a persistent social and linguistic phenomenon. However, under a number of political, social, economic, and academic pressures, the stability of diglossia seems to be disturbed. What follows represents the chief outstanding burdens:

1. Ferguson [3] points out that the highly people are accustomed to 'H' and the more frequently they use it, the stronger a blurring of the linguistic differences between 'H' and 'L' is likely to occur. In Algeria, the free, compulsory education offered by the government, reinforced by the *Arabisation Policy* applied since the 1970s to replace French (a language policy which imposes Arabic as the sole official language), has started to pick up its harvest. Now, it is in no way odd to hear people alternating between SA and AA in the course of a single conversation. Such linguistic behaviour is the byproduct of increased familiarity with SA, as the ratio of illiteracy is in continuous decrease. Switching between the two varieties is a linguistic tool people tend to employ particularly when they engage in conversations that include new concepts or lexical items that have no dialectal equivalents making it a necessity to switch to the language on instruction (SA) - such a linguistic behaviour may be accounted for in terms of diglossic switching which is contrasted with cross-linguistic switching that involves alternating between two different languages. Then, the media is also widely arabised. Such communication means represent an important window for the diffusion of SA. It has also become very common to hear, in a semi-formal encounter (e.g. TV interviews), educated speakers mixing the acrolect (SA) and the basilect (AA), i.e., using an admixture. This is a form which is now largely referred to as 'Educated Spoken Arabic'.

2. The rise of English as a global language has had its influence. English is now a significant language, a language of diplomacy, science, technology and commerce. In Algeria, English is politically regarded a (second) foreign language and its use is very limited. However, in recent years it has been introduced as a compulsory subject to first year middle school learners. It is also greatly encouraged in higher education, and any researcher is now asked to give a summary of the research in English. These sociopolitical changes may

along the line allow it gain ground and be introduced as a functioning language that fulfills official domains. Subsequently, polyglossia, instead of diglossia, will be by then the prevalent sociolinguistic phenomenon.

3. The promotion of *nationalism*, in contrast to *nationism*, is also a serious factor that may cause diglossia's disappearance. In the Middle East, proponents of, for example, Cairene Arabic and Damascene Arabic regard such varieties as symbols of national affiliation and hence more accurate national languages for Egypt and Syria respectively than SA which is in fact a lingua franca shared by all the Arab World. A noticeable feature is that previously (approximately toward the end of the millennium) all movies, series, TV shows, etc, imported from non-Arabic-speaking countries, when *translated*, were all presented on the TV in SA. Now, with increased desire for promoting national languages, many of such programmes appear in the local vernaculars. Turkish series, which have a huge number of fans in the Arab World, are currently presented in Lebanese Arabic; some cartoons are delivered in Egyptian Arabic; and still a number of Mexican and Turkish series appear in Moroccan Arabic. The point here is that SA may undergo a process of *language shift* if the Arab nations manage to standardize their local dialects. Having one language in common has a number of advantages, not least a perfect communication from Morocco to Iraq. At the same time, losing that language would have strong impacts at many levels: social, cultural, economic, etc. The situation would best be compared to that of Latin. The rise of nationalism in France, Italy, Spain, Portugal, and ex Latin-speaking countries led to the promotion of local varieties in these States, resulting in what is now known as Romance languages. Latin, which was at a point the superposed variety and the language of literacy and science, is now a language reserved mainly to liturgical purposes in churches.

The other crucial point is made upon academic bases. The fact that SA (as an instance of all 'H' varieties in most diglossic communities) is the mother tongue of no sector in the community, and that children become aware of it until school age, while colloquial Arabic, though highly stigmatized, is the genuine mother tongue acquired first and being used on a daily basis, has urged some linguists and language educators to put forward that SA should not be promoted by education systems in and outside the Arab World. For many researchers, low literacy rates in the Arab world are a direct outcome of the diglossic nature of Arabic. This is made on the claim that the best way for an efficient literacy is via the first language. A number of proposals have been suggested to cope with the situation but no consensus could be met. Palmer [10], for instance, when talking about Arabic programs in the USA, supports the idea that such programs must promote the teaching of spoken Arabic into their curricula. Such a view is made upon the point that the standard language creates a fake model of oral proficiency by presenting the students with an artificial variety that is not used by the native speakers for daily-life communication. By the same token, in discussing the teaching of Arabic to foreign learners, Younes [11] proposes that students should be introduced to both a spoken Arabic dialect and formal Arabic from the beginning of an Arabic course if they hope to function competently in Arabic. The question which posits itself is what dialectal Arabic should be taught?

Upgrading dialectal Arabic in the Arab World, if it is to be implemented, is no easy task. Such a procedure makes it a must to pass through a whole language planning process. First, in terms of *status planning*, which regional variety to choose? Although they constitute a dialectal continuum, every Arab State has a number of regional dialects, each with specific linguistic traits to the extent that mutual intelligibility is sometimes deeply affected within the same country. Though language determination (*status*) is basically policy-driven, it is an act that may generate a lot of problems among the population and lead to social upheavals for it is not easy to accept the variety of another group to be favored and therefore codified then imposed on the whole community. Secondly, in terms of *corpus planning*, which accent should enjoy high esteem? Which syntactic structures and morphological forms are to be permitted? Which regional items are to be favored? Finally, as far as *language in education policy* (acquisition planning) is concerned, can the prerequisites Bowers [12] proposes (basic teaching and reading materials, accepted writing system, and teachers who master that variety) be met? Even if such necessities are available, it is a fact that people in general perceive the spoken variety to be less prestigious and less worthy. In this respect, Versteegh [13] argues that it remains difficult in the Arab world to arouse interest in the dialects as a serious object of study. Many speakers of Arabic still feel that the dialect is a variety of language without a grammar and even in the universities there is a certain reluctance to accept dialect studies as a dissertation subject".

#### IV. Conclusion

What is evident is that there is no chance for any colloquial Arabic to be the 'H' variety as long as SA is politically promoted and protected. In Algeria, the standard form still has the highest regard, and it is constitutionally preserved and explicitly declared as the sole official language of the State. Thus, one should wonder whether such a procedure, which demands linguistically sophisticated experts and a considerable political endeavour, is necessary or not. For it is a highly complex process that may span centuries, why not to think the other way round, that is increasing the use of Standard Arabic even colloquially beginning from the home. If this is to be encouraged and forced, the time-depth factor may lead to a standard-with-dialect

community. The rationale for this is that most world languages were only dialects. Through a process of standardization, which Haugen [14] sees as selection of a norm, codification, elaboration of function, and acceptance, such dialects were politically favored and hence imposed at a national level to serve as a unifying force. Now, in France, England, Germany, and so forth, significant portions of the population acquire French, English, and German, respectively as their mother tongue, although various dialects still exist in such countries.

### Références

- [1] W. Marçais, La diglossie arabe, *L'Enseignement Public*, 97, 1930, 401-409
- [2] C. A. Ferguson, Diglossia, in D.Hymes (Ed.), *Language in Culture and Society*, (New York: Harper & Row, 1964) 429-39.
- [3] C. A. Ferguson, Diglossia, in Gigliolo (Ed.), *Language and social context. Selected readings*, (Harmondsworth, 1972) 232-251.
- [4] M. Sebba, Societal bilingualism, in R.Wodak, B. Johnstone, P.Kerswill (Ed.), *The handbook of sociolinguistics*, (Los Angeles, London, 2011) 445-459.
- [5] M. Hogg, N. Joyce, D. Abrams, Diglossia in Switzerland? A social identity analysis of speaker evaluations, *Journal of Language and Social Psychology*, 3, 1984, 185-196.
- [6] J. A. Fishman, Bilingualism with and without diglossia; diglossia with and without bilingualism, *Journal of Social Issues*, 32, 1967, 29-38.
- [7] H. Schiffman, *Diglossia as a sociolinguistic situation* (Pennsylvania: University of Pennsylvania, 2004).
- [8] J. A. Fishman, *The sociology of language: An interdisciplinary social science approach to language in society* (Rowley, 1972).
- [9] R. Wardhaugh, *An introduction to sociolinguistics* (Blackwell Publishing, 2006).
- [10] J. Palmer, *Arabic Diglossia: Teaching Only The Standard Variety Is A Disservice To Students*, *Arizona Working Papers in SLAT*, 14, 2007.
- [11] M. A. Younes, *An integrated curriculum for elementary Arabic*, in M. Al-Batal (Ed.), *The teaching of Arabic as a foreign language: Issues and directions*, (Provo, Utah: American Association of Teachers of Arabic, 1995) 233-255.
- [12] J. Bowers, *Language problems and literacy*, in J. Fishman, C. Ferguson, J. Das Gupta (Ed.), *Language Problems and Developing Nations*, (New York: John Wilers and Son, 1968).
- [13] K. Versteegh, *The Arabic language* (Edinburgh: Edinburgh University Press, 2004).
- [14] E. Haugen, *Dialect, Language, Nation*, *American Anthropologist*, 68, 1966, 922-35.

**Managing Editor Board**

- ❖ Dr. Muhammad Shahidul Islam, Bangladesh
- ❖ Dr. M.V. Lakshmidevi, India
- ❖ Dr. Nasir Rana, Pakistan
- ❖ Dr. Ajayi, Johnson Olusegun, Nigeria
- ❖ Dr. Monia Acciari, United Kingdom
- ❖ Dr. W. A. Amir Zal, Malaysia

**International Editorial Board**

- ❖ Dr. Paul Terungwa JATO, Nigeria
- ❖ Dr. Vimalesh Kumar Singh, India
- ❖ Dr. Brij Pal, India
- ❖ Dr. Irshad Hussain, Pakistan
- ❖ Dr. Imam Isah Paiko, Nigeria
- ❖ Dr. Emaikwu Sunday Oche, Nigeria
- ❖ Dr. Suresh makvana, India
- ❖ Dr. Ogbonna Emmanuel Chijioke, Nigeria
- ❖ Dr. Okorie Ugochukwu, Nigeria
- ❖ Dr. Md. Nazrul Islam Mondal, Bangladesh
- ❖ Dr. Diksha Sharma, India
- ❖ Dr. Muhammad Ibrahim, Pakistan
- ❖ Dr. John Yeseibo, India
- ❖ Dr. Amita Puri, India
- ❖ Dr. Michael Akintayo, US
- ❖ Dr. Termit Kaur Ranjit Singh, Malaysia
- ❖ Professor Dr Sobho Khan Jamali, Pakistan

**IOSR Journals subscription**

Institute or any person can subscribe the hard copy of IOSR Journals. All subscription are payable in advance. Journals are sent by air to all countries except Indian subcontinent. Subscriptions are on annual basis. For more detail of subscription, log on to [www.iosrjournals.org](http://www.iosrjournals.org)

**Contact Us**

Website URL : [www.iosrjournals.org](http://www.iosrjournals.org)

Email : [iosrjhss@gmail.com](mailto:iosrjhss@gmail.com)

**Qatar Office:**

IOSR Journals  
Salwa Road  
Near to KFC and Aziz  
Petrol Station,  
DOHA, Qatar

**India Office:**

IOSR Journals  
SC-89 A, Shastri Nagar,  
Ghaziabad, UP,  
India

**Australia Office:**

43, Ring Road,  
Richmond Vic 3121  
Australia

**New York Office:**

8th floor, Straight hub,  
NS Road, New York,  
NY 10003-9595