Code Switching in the Algerian Classrooms: Case of 2nd Year Scientific Stream at Ahmed Ben Zekri Secondary School

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Dedications

To my wonderful parents who gave me courage and opportunity to fulfill my ambitions in life and to reach my dreams.

To my husband for his support, help and patience.

To my dear son Ishak.

To my lovely sisters and amazing brothers.

To all my family, friends and persons who occupy a great space full of love in my heart and whom I forgot to mention.

Manel
Dedications 2

To my beloved parents.

To my sisters and brothers.

To all my family members and friends without exception

Asma
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ABSTRACT

This research investigates code switching in the Algerian secondary school classrooms. It aims to identify to what extent teachers and pupils switch between Modern Standard Arabic, Algerian Arabic and French during literary courses in comparison to scientific ones. Moreover, it attempts to know the reasons which motivate them to switch from one variety to another. To reach the answers, a case study of Ahmed Ben Zekri secondary school of Tlemcen was undertaken. The sample included eight teachers: two teachers of Islamic Sciences and two others of History as they represent literary courses, as well as two teachers of Natural Sciences, and two others of Physics as they represent scientific courses, in addition to 38 second year pupils from the scientific stream. They were observed for eight sessions; two sessions were devoted to each of these courses. Teachers’ interview and classroom observation were used as tools for data collection. Data were analyzed quantitatively and qualitatively. The results obtained showed that switching to Algerian Arabic occurred in both scientific and literary subjects for a set of reasons. Some of those were shared between both scientific and literary subjects like filling up linguistic gaps, clarifying ideas, facilitating communication, while some others were specific only to particular subjects like: lack of register or talking about a particular topic as switching to French which was noticed only in scientific subjects. To conclude, code choice in education was tightly linked to the nature of subject.
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List of Abbreviations and Acronyms

AA: Algerian Arabic
Br: Berber
CBA: Competency Based Approach
CS: Code Switching
CNRSE: The Commission of National Reform of the System of Education
Fr: French
H: High variety
L: Low variety
L1: First Language
L2: Second Language
LMD: License Master Doctorate
MSA: Modern Standard Arabic
PhD: Doctor of Philosophy
### Arabic Letters and their Phonetic Transcription

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General Introduction
General Introduction

The study of code switching (henceforth CS) has gained momentum since the 1970s. In fact, CS is defined as the alternate use of two or more languages in the same conversation by the same person. Blom and Gumperz (1972) were among the first to investigate this sociolinguistic phenomenon. Later, many other scholars proposed various theories and approaches regarding its functions and types. Akin to Holmes (1992) in New Zealand, Myers Scotton in East Africa (1993), and many other speech communities in the world, Algerian researchers seek to investigate CS in the Algerian speech community as an important sociolinguistic phenomenon.

Algeria has a complex and diverse linguistic profile. From a macro sociolinguistic perspective, Algeria is a multilingual country where Modern Standard Arabic (hereafter MSA) exists with Algerian Arabic (AA), in addition to Berber and its different varieties and French (Fr). This multilingualism is the outcome of language contact. Before the 1970s, monolingualism was the norm, but later it became the exception, and bi/multi-lingualism became the norm. Language contact leads to many sociolinguistic phenomena such as: CS, diglossia, code mixing and borrowing. Code choice is sometimes linked to diglossic speech communities which characterize the Arabic speaking world.

The researchers' aim in this work is to investigate the use of MSA, AA and Fr in the field of education and the frequency of the use of each. That is to say, it explores the use and distribution of these codes inside the Algerian classrooms. It also aims to look for the reasons behind switching from one variety to another during literary courses and scientific ones. This research could contribute to enhance the quality of education in the sense that it is important to study how these codes overlap in order to see whether it is beneficial for learning and teaching processes, as such to uncover if switching between codes has positive or negative effect in education. In
order to reach the aims mentioned above, the researchers raise two research questions:
1-Which varieties are used in literary and scientific subjects in Algerian secondary school classrooms: MSA, AA, Fr?
2-What are the reasons behind the switch from one variety to another?

The suggested hypotheses are as follows:
1-MSA, AA and Fr are used in scientific courses, while only MSA and AA are used in literary ones.
2-The reasons behind switching from one variety to another are:
   - MSA is used for instruction.
   - AA is used for clarification of ideas.
   - Fr is used for the introduction of scientific terms.

To check the validity of these hypotheses, the researchers conduct an exploratory case study, dealing with teachers of some scientific and literary subjects and their pupils from second year scientific stream in Ahmed Ben Zekri secondary school.

This dissertation is divided into two chapters. The first one deals with a literature review of CS with its related key concepts and introduces some of the most important sociolinguistic phenomena which are related to CS in general. Then, it shifts to shed light on the Algerian setting to discuss its sociolinguistic situation. Finally, it deals with education and language policies in Algeria. The second chapter deals with the practical part. It is the case study undertaken in Ahmed Ben Zekri secondary school, in which the researchers used interviews delivered to eight teachers of different scientific and literary subjects: Natural Sciences, Physics, Islamic Sciences and History. In addition, the researchers used classroom observation for these teachers as well as thirty-eight pupils. Furthermore, it describes the context of investigation, the sample population and defines the case study. This part is also devoted to qualitative and quantitative data analysis, data interpretation and discussion of the results. In addition, some implications related to CS are presented.
Chapter One:

Literature Review
1.1 Introduction

Since the 1970s, CS has been the center of exploration. Researchers from different fields like sociolinguistics, anthropology, sociology and psychology were interested in studying this phenomenon. In this study, the researchers' aim is purely sociolinguistic. This chapter deals with a theoretical overview of CS. First, it speaks about CS for its importance in bi/multilingual speech communities by giving its definition, types, the difference between CS and some related sociolinguistic phenomena, its reasons and other details. After, the researchers introduce some related key concepts to CS. Next, it deals with the sociolinguistic situation of Algeria and some outcomes of language contact. At last, it speaks about education in Algeria; Arabicization policy and the main educational reforms which concern languages, and how codes coexist within the Algerian educational settings. Hence, it is important to start with a definition of CS as a key term in this study.

1.2 Code Switching

CS in broad is the outcome of bi/multilingualism and language contact. It is one of the most important sociolinguistic phenomena. Looking at language from an interactional point of view, bi/multi-linguals shift from one code to another. CS according to Gumperz (1982:59), is “the juxtaposition within the same speech exchange of passages of speech belonging to different grammatical systems or sub-systems”. Here, according to this latter, CS reveals the existence of different words, phrases, or sentences within the same context either from one grammatical system to another ,i.e., from one language to another which is completely different like French/Arabic CS or from one variety to another within the same language as an example MSA/AA CS.

CS, on the other hand, is mainly perceived from two sociolinguistic perspectives. One which is social dealing with social meaning, how it is conveyed and for which purposes it acts. The second deals with the structure, that is to say it focuses on grammar, morphology, syntax and semantics. These two different perspectives to
CS are different in terms of interest but they are correlated and each one serves the other.

CS sometimes paves the way to borrowing because when a group of people gets used to a certain word, or phrase, by time it may become adapted to their language. As it is the case of the readymade words in Algeria, like: Déjà, Ok, nconnécté, ntéléchargé, normalement…, meaning: already, Ok, I connect, I download, normally, respectively. CS may happen intentionally or unintentionally, from one language to another, from one variety to another, or from one style to another. One of the most common theories related to CS is the markedness model.

1.3 The Markedness Model

In the mid-1990s, the Markedness model was developed as one theory of CS by Myers Scotton to focus on the social and psychological motivations that motivate CS, and to show that there are constraints which govern this phenomenon. It deals with the reasons of choosing one specific code rather than another. Because CS requires the existence of at least two codes, people have multiple choices to express one idea. When they choose a given code consciously, this is called a marked choice where codes are used systematically. Marked and unmarked models are related to speech communities and social factors in addition to negotiations with interlocutors.

a-The Matrix Language:

It is also called the base language. It was introduced by Myers Scotton (1993:20). It is the dominant language of greater importance. Its morphemes or vocabulary is the one which largely appears, and it is the first language of the speaker.

b- The Embedded Language:

It is known as the contributing language. It is opposed to the matrix language. It is inserted within this latter, and it plays a minor role in the sense that it obeys the rules of the base language.
According to Wei (2000), CS is regarded as a means and a message at the same time. It is a means because it is used as a tool to fulfill a given function for the speaker and it is a message because it reflects the speakers’ intention to the listener about why he/she has chosen a particular code rather than the other.

**c-The Distribution of Codes in Code Switching:**

In code switching, the implication of two or more codes is observable. However, what should attract attention is that codes are not used in an equal way. The dominant code is "the language we speak" it is called “the Matrix language” the primary code. While the other is considered as “the embedded language” or the secondary code. Generally, it is found that the structure and grammar of speech are taken from the primary language which is known and mastered more than the other one. This was criticized since CS is dominated by communal norms rather than just individual choices. The grammar of the primary language is dominating, especially when whole phrases and sentences are taken from a secondary code. In fact, CS is classified into different types according to different scholars.

**1.4 Types of Code Switching**

There are many debates among scholars and linguists about how to classify categories under CS phenomenon. Each scholar names and deals with CS from a certain angle. For instance, Blom and Gumperz (1972) divide it into situational CS and metaphorical CS. They divide it according to social function. However, Poplack (1980) focuses on the sentence structure in her categorization of CS. Muysken (2000) also deals with CS regarding the grammatical constraints. Here are the definitions of each one of these types:

**1.4.1 According to Blom and Gumperz (1972)**

Blom and Gumperz (1972) classify CS into two main types which are: Situational CS and metaphorical CS.
a-Situational Code Switching:

It happens according to the change in a situation, topic, participants or even the setting, Wardhaugh (1998) adds that bilinguals shift from one language to another whenever they want, according to change of setting, when dealing with the same topic.

b-Metaphorical Code Switching:

It is also known as conversational CS. It occurs within the same context, setting and participants for different purposes like: to emphasize, to show solidarity, and sometimes, it happens according to a situation by means of a shift from formal to informal and vice versa, like in the Algerian classrooms. Wardhaugh (1998) claims that in this type, people switch for the sake of showing group identity, or even when there is a change in a topic and not the setting.

1.4.2 According to Poplack (1980)

After Blom and Gumperz’ s (1972) division of CS, Poplack (1980) proposes different divisions of CS. She adds a third type named Grammatical CS which is also divided into three sub-types. It was viewed from a structural and a linguistic angle. It shows that switching between two codes especially if they are different unrelated languages is not random, but rule-governed and requires to be skillful in the target language. The sub-types under grammatical CS are:

a- Intrasentential Code Switching

The alternation between the two languages occurs at the same sentence boundary. It was called later Classic CS by Myers Scotton (1993) and Alter- national CS by Muysken (2000). However, it remains largely known as intrasentential CS. In this type
of CS, the combination preserves and respects both grammatical structures, as an example, let’s take Poplack’s (1980) example written in her seminal article, in CS between English and Spanish.

*English/Spanish*

Sometimes I’ll start a sentence in Spanish **y termino en Español.**

And I finish in Spanish.

Poplack argues in her research about New York Puerto Rican that speakers who switch intrasententially are balanced bilinguals, they have knowledge and grammar of both languages being switched to. In addition, she views that it is almost impossible to switch using this type without having grammatical background in both languages, i.e., this type of CS needs an advanced level of bilinguality and language proficiency because one will produce phrases, clauses or whole sentences with respect to the grammar of the foreign language.

Within the same sentence

![Figure 1.1 Intrasentential code switching](image)

**b- Intersentential Code Switching:**

In this type of CS, the alternation comes at clause boundaries. This means that the speaker begins a sentence in one language and the following one in another.

For example: **Sois courageux!** you can do it.

*be brave, you can do it*

This type of CS requires skills and language proficiency in both languages because the speaker will utter a whole sentence one language and the second sentence in another.
c-Extrasentential Code Switching:

It is also called tag switching or emblematic CS. It is the insertion of an expression from one language and put it in another language, as an example:

**Je n’ai pas fait attention**, sorry.
(I did not pay attention, sorry)

So, well, alright…are used for pragmatic effects, they are called discourse markers, they convey embedded meanings.

Code switching is correlated to other linguistic phenomena.

1.5 Code Switching and Other Linguistic Phenomena

CS, code mixing, borrowing and diglossia are sociolinguistic phenomena which characterize bi/multi-lingual speech communities. There is no agreement about the difference between CS and code mixing.

1.5.1 Code Switching Vs Code Mixing

The difference between CS and code mixing is a debating topic. While some scholars view that they are the same, others like Walwadkar (2013) views that they are not. He considers that CS represents the movement from one language to another while code mixing is linguistically and competently demanding. He says in this respect: "code mixing is the embedding of various linguistic units such as affixes (bound morphemes), words (unbound morphemes), phrases in order to infer what is intended, must reconcile what they hear with what they understand".
Muysken (2000) develops a typology of CS patterns where he suggests that bilinguals use three basic strategies or types which are:

**a- Alternation:**

As in the example given above in the intrasentential and intersentential. In this type both languages remain separated and occur in an A-B configuration. For example:

*Vas y*, keep reading.

(Go on, keep reading)

**b- Congruent Lexicalization:**

It happens when the two languages being switched have the same structure and grammar. Generally, in this case, the grammatical structure of both languages when being switched comes as A-B-A-B configuration. For example:

*English/Spanish*

I will finish all my work **este día** if I **empiezo** earlier.

(I will finish my work today if I start earlier)

This type of code switching largely exists between typologically related languages.

**c- Insertion:**

Here, there is an embedding of a constituent between the language constituents, usually the embedded constituent is a phrase. The configuration of CS comes as A-B-A.

for example:

Wait for me **une minute** I will be back.

(wait for me one minute I will be back).

Insertion has much in common with borrowing because both do not need second language proficiency or much knowledge of two languages. Muysken (2000) views that CS and code mixing are two distinct phenomena. Although other scholars such as Scotton (1992) consider them as being the same. There are many sociolinguistic phenomena that constitute a sort of ambiguity to be distinguished from CS, like borrowing.
1.5.2 Code Switching Vs Borrowing

Borrowings constitute part of the language integrated as they exist in the language they come from exactly by means of the same writing, same pronunciation and same meaning. A vivid example is English which has two thirds of its vocabulary taken from French. Gumperz (1982:89) claims that CS is "a communicative resource" and not "a communicative deficit". According to him, borrowing concerns words and clauses, and needs morphological as well as syntactic rules from the source language, while CS concerns the syntactic level and involves sentence fragment that is from one language. In addition, borrowing may happen with monolingual people, while CS may not. As an example from the Algerian speech community, old illiterate people use borrowed Fr words when they speak without knowledge of Fr grammar rules and syntax. Despite the fact that CS diverges with borrowing, it converges with diglossia which also characterizes bilingual communities, as it will be further illustrated in the following section.

1.5.3 Code Switching Vs Diglossia

CS and diglossia phenomena are interrelated. They differ in some points and they share some specific aspects at the same time. According to Gumperz (1982), in diglossia, language varieties are distributed in a stable manner, consciously for a given purpose or function which is being defined by context and not by participants’ intended effects. On the other hand, CS mostly happens unconsciously, fast and used for communicative effects. However, the common point between the first and the latter is that in both the shift or the switch may be between two or more varieties of the same language or from one language to another.

Speaking about specialization of function which exists in both, a good example exists in Arabic where AA is the low variety and MSA is the high. The first is acquired at home while the latter is learned at school to be used in formal situations. These two codes may be used simultaneously within the same conversation either consciously or unconsciously. In formal settings breaking the rules of specialization
of function. Both are used in the same speech situation, like in mosques where the Imam (orator) switches to AA in such a formal situation for communicative purposes. Another example from the Algerian setting is the field of education, in which CS occurs between H and L varieties which are: MSA, AA and Fr. There are various reasons which motive the occurrence of CS.

1.6 The Reasons behind Code Switching

As mentioned before, CS is an outcome of language contact. It plays an important role in the sense that it fulfills a set of objectives and serves people in their communication. According to Wardhaugh (1998) the selection of the appropriate language is very crucial in one’s conversation.

1.6.1 Reasons Developed by Gumperz (1982)

According to Gumperz (1982:144), CS contributes in making both linguistic and social meaning and he gives the following reasons for CS:

a-To appeal to the literate: For instance, one may switch to a high variety when speaking to show literacy and belonging to educated people. As an example from Algeria, people speak AA then switch to Fr, or even sometimes to English. Their aim is to show literacy and to be considered as educated.

b-To appeal to the illiterate: Literate people tend to switch to a more simplified variety when addressing illiterate people. In Algeria, people tend to switch from MSA or Fr to AA in specific cases such as when they are speaking to illiterate or old people because AA (Dialectal Arabic) is understood by everyone. A doctor speaking Fr to a patient will shift to AA when he recognizes that his patient does not understand.
c-To convey precise meaning: In this case, the speaker shifts from an elevated variety to another one which is casual and better understood in order to clarify the meaning and avoid misunderstanding, for example:

؟اَشَّوْهَا ٓسَسَأْلَهَا ٓجَتْنِي ٓتَسْرَافُ ٓتَتْحاَرُ ٓشُهَاَبَكَ.

“Good companionship, means to know how to choose your friends”.

d-To ease communication: In this case, people who switch aim to shorten the number of words and provide the meaning at the same time. So, they switch to another variety where meaning is conveyed economically. For example:

rak retard. Instead of: ماَتِّي ٓفَلَ وَتْمَثِلَ ٓبِ.  
(You are late. Instead of you did not come on time).

e-To negotiate with greater authority: When speaking with someone that you feel yourself as responsible or having greater authority over him, one may shift from one variety to another like in:

dَرَك ٓنُجُعِّ ٓفَلَ ٓقَدُّيَةَ، ٓعِتَرُسُ ٓعَنَّا ٓپَاَرَلَرَ.
(I will think about this case, then we will discuss).

f-To capture attention (stylistic, emphatic and emotional): When someone shifts from one variety to another accompanied with a shift in style or tone for the sake of gaining people’s attention. In Algeria, people when they show surprise, they shift to Fr saying: «c’est pas vrai!».

«no way !» with high pitch and exclamatory tone.

g-To emphasize a point: When the speaker wants to emphasize something he/she says something, then he/she repeats what has been said using another variety, like in «attention، ٓأَدْرَزُ ٓرَهَكَ» (be careful)

h-To communicate more effectively: Whenever there is an idea which is better transferred through another code, people find it more effective to use that code. Algerians in an informal situation may say:
ṣralah kíma ǧaza:? sínnima:r (to mean a bad ending which is not deserved).

**i-To close the status gap:** Foreigners when being in contexts where the spoken language is not theirs, they shift from their variety to the foreign one which dominates speech. A good example from the Algerian community are those people who came from Mali and adapted AA in order to be able to communicate.

**j-To establish good will and support:** In this case, people switch in order to show support to listener or favorable attitudes towards someone. As an example, AA\Fr jahhaf dak, c’est très bien.

(God bless you)

**k-To identify with a particular group:** This means switching to the language of a particular social group one belongs to in order to show his belonging.

### 1.6.2 Reasons Developed by Crystal (1987)

Crystal (1987) views that there are two main reasons for CS. People switch either to express themselves better, or to show solidarity with others.

**a-To express oneself better:** The first one is that the switch happens because the speaker feels him/herself better expressing himself/ herself when speaking a given language. So, it depends on the person’s emotions.

**b-To show solidarity:** The second one is that the person who switches wants to show solidarity with a specific network (group of people).

### 1.6.3 Reasons Developed by Hoffman (1991)

Hoffman (1991) suggests that there are reasons which make speakers switch from one code to another. They are summarized as follows:
a-For quoting: Whenever there is a quote, people are obliged to refer it to by the original language in order to be ethical and to keep its originality. Describing the Arabic language by a French man, he would say «c’est la langue des belles lettres» to mean that this language fits arts and poetry, and this was said by French linguists that is why it is quoted.

b-To talk about a particular topic: It is to switch to the language that is appropriate to talk about a given topic.

c-To express group identity: When people share the same identity, but do not share the same language. Such as in Burkina Faso, where many mutually unintelligible dialects are spoken, but one identity is shared.

d-To provide an emphasis about something: This means to insist on something using CS in order to influence the hearer.

e-To make an interjection: The use of words from another language that show astonishment, amazement or surprise.

f-To repeat in order to clarify: To repeat what was said using another language for the sake of clarification.

g-To soften or strengthen a request or a command: To make a given order seems polite or strong and to show formality.

h-Lack of facility and lack of register(untranslatability): Sometimes it is difficult to say a word at the level of pronunciation or grammar. People feel the need to switch to a variety which is easier and simpler. There are certain words which may exist in a code and not in another for people. This is what leads them to switch in order to be able to provide a given vocabulary. For instance, let us take the example of religious topics for Arabic which require MSA vocabulary.
i -To exclude others when a comment is intended for an exclusive audience: When speaking to an audience and making comments, CS may occur for the sake of excluding some people from being concerned with a given comment.

Because CS is the outcome of language contact, some concepts are tightly related to this phenomenon.

1.7 Key Concepts to Code Switching

When speaking about CS, there are important concepts that one should mention like: language contact, multilingualism, diglossia, register and code. These sociolinguistic phenomena have a tight relation with CS.

1.7.1 Language Contact

Language contact, according to Stolz (2008), is a sociolinguistic phenomenon which represents two or more speech communities being in communication. Language contact has to do with different domains such as: language acquisition, language processing and production, conversation and discourse, language policy and social functions of language. It has many outcomes including: multilingualism, bilingualism, diglossia and CS, which affects language lexicon, grammar and structure. Moreover, this contact may lead to convergence, by means of an agreement between those languages being in contact, or to a language shift which happens when those languages in contact are not equal in terms of prestige. So, people abandon their native language and adapt the other code. It may end with a language death, if the shifting group from their native language are the last remaining speakers of that code.

1.7.2 Multilingualism

Multilingualism is the use of two or more languages by individuals, or by the whole speech community. Nowadays, multilingual speakers outnumber
monolinguals. This is due to globalization and cultural openness. For instance, people's use of internet makes them in contact with other languages. Moreover, nowadays there is a need to learn others' languages and to be polyglots, i.e., to speak more than one language. Multilinguals acquire their first language from their environment in childhood which represents (L1). Children who acquire two languages in this case, i.e., (L1) with (L2) are called simultaneous bilinguals. Speaking in terms of linguistic economy, multilinguals have more benefits than monolinguals since they have a rich, wide language repertoire.

1.7.3 Diglossia

Literally, diglossia means two tongues. The term is used to describe a situation where two varieties, a high variety and a low variety, are used side by side in the same speech community in different contexts. Thus, the speaker is constrained whether to use the H variety rather than the L variety or vice versa. As stated by Ferguson (1972:232) diglossia is a situation “… where two varieties of a language exist side by side throughout the speech community with each having a definite role to play”. So, there is a high variety which is used in one set and a low variety in a different one. Hence, they are used in complementary distribution. Diglossia key concepts are as follows:

- **Variety**: Variety is a neutral term that refers to either a language or a dialect.
- **High Variety**: High variety is used in formal situations. It is guided by grammar rules and generally learned at school.
- **Low Variety**: It is used in informal contexts and acquired at home for casual interaction.

Ferguson (1959) sets out a framework to show the functional distribution of (H) and (L) varieties under nine rubrics for both of them in order to allocate each one in its specific context. The following table exposes the specialization of function of H and L varieties.
**Table 1.1: The specialization of function of high and low varieties** (adapted from Ferguson's 1959)

<table>
<thead>
<tr>
<th></th>
<th>High variety</th>
<th>Low variety</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prestige</strong></td>
<td>Prestigious</td>
<td>Non-pretigious</td>
</tr>
<tr>
<td><strong>Standardization</strong></td>
<td>Standard</td>
<td>Non-standard</td>
</tr>
<tr>
<td><strong>Stability</strong></td>
<td>Relatively stable</td>
<td>Relatively stable</td>
</tr>
<tr>
<td><strong>Lexicon</strong></td>
<td>Large vocabulary (some lexis is shared with L)</td>
<td>Restricted vocabulary (some lexis is shared with H)</td>
</tr>
<tr>
<td><strong>Grammar</strong></td>
<td>More complex</td>
<td>Less complex</td>
</tr>
<tr>
<td><strong>Literary heritage</strong></td>
<td>Written, wider</td>
<td>Non-written, limited</td>
</tr>
<tr>
<td><strong>Phonology</strong></td>
<td>Different from L</td>
<td>Different from H</td>
</tr>
<tr>
<td><strong>Acquisition</strong></td>
<td>Learned throughout schooling</td>
<td>Acquired as a mother tongue</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>Associated with formal contexts</td>
<td>Reserved to informal interaction</td>
</tr>
</tbody>
</table>

In 1967, the term diglossia was expanded by Fishman to cover other situations where the H and the L varieties are genetically unrelated which means that they are
not derived from the same language, as in the case of Paraguay: Spanish is the H variety while Guarani (a local Indian language) is the L variety. This is referred to as: extended diglossia. With such an expansion, two types of diglossia are determined: Classical Diglossia and Extended Diglossia.

1.7.4 Register

Register is also known as jargon, a non-technical term. It is the total range of technical terms related to a special field or a profession. For instance: legal register as: prosecutor, defendant, consultant, proceedings, medical register like: cardio, cephal, and economic register such as: revenue, expenditures, elasticity.

1.7.5 Code

Wardhaugh (2006) defines the term code as a neutral term to refer to any system used for communication. He views that this term is useful since it does not reflect emotional states like: creole, pidgin, dialect, or standard language.

The word CS itself contains the term code, which means here that people are using a code that is composed of two different codes. Moreover, in the so called diglossic situations, the distinction between codes governs the choices; each code should be employed within a specific setting.

People have different views about CS. Therefore, they display various attitudes towards this linguistic phenomenon.

1.8 People 's Attitudes Towards Code Switching

Before the 1970s, people used to have negative attitudes towards CS. It was viewed as a Language deficiency and incompetence marker, deficit and stigma. It was regarded as filling- up gaps between languages and they considered that it is a threat to their mother tongue languages, and they believed in the idea of one language one nation.
Recently, people switch back and forth and sometimes this switch is conscious, but most of the time, people are unaware of this switch. Holmes (2013) claims that beliefs towards CS are negative in various societies even though mastery in intrasentential CS needs good control of both varieties, as in Britain. That is to say, monolinguals generally have negative attitudes towards this shift between varieties. For instance, French/English CS in Britain is called [Tuti-Futi], while Mexican Americans call it [Tex-Mex]. In Panjabi [Broken-up] means CS between Panjabi and English. For purists also there must be one language homogeneity, refusing multilingualism and thus, they see CS as a threat to their identity and language. However, Holmes (2013: 41) argues that CS: “In places such as PNG and East Africa, where multilingualism is the norm, attitudes to proficient CS are much more positive”. This means, in multilingual speech communities, CS is a language proficiency marker. Furthermore, it reflects competences in both languages. In multilingual settings like these provided in the previous quote, people have positive attitudes towards CS. Another reason which made people accept CS and have positive attitudes towards it is literacy since it made people open-minded and accept language variation, in addition to the communicative purposes since people all over the world nowadays find CS useful for many purposes.

The researchers’ concern in this study is to investigate CS in the Algerian educational context. Hence, it is worthy to shed light on the sociolinguistic situation in Algeria.

1.9 The Sociolinguistic Situation of Algeria

Algeria is a complex speech community due to historical, social, cultural and political factors. Historically speaking, Algeria was the center of invasions of many civilizations such as Phoenician, Carthagian, Byzantine and French, throughout time, it constituted a particular sociolinguistic situation. This latter paved the way to distinct language contact phenomena like borrowing, bilingualism, CS and diglossia. Code alternation is remarkable in some of these phenomena like in CS, while in others code choice is done accordingly to the situation. Political factors on
the other hand are responsible for today’s linguistic situation in Algeria, since there is a policy behind language planning.

1.9.1 The Linguistic Profile of Algeria

Algeria is *de jure* a bilingual country. However, *de facto* a multilingual speech community where various varieties are found, namely: MSA, AA, Berber, and Fr. MSA and AA are said to be varieties descending from the so called Classical Arabic, the name of the formal standard form of the Arabic language in the pre-Islamic era and the language of religion and Holy book, the Qur’an. This latter was preceded by Berber; the language of the first inhabitants of the Maghreb in general and Algeria specifically and that variety still exists only in specific regions. Fr spread as an outcome of the French invasion of Algeria, and through the linguistic imposition and imperialism. Thus, it gained an important status in Algeria till nowadays.

1.9.1.1 Modern Standard Arabic

MSA is a simplified form of the so-called Classical Arabic, where only a few differences mainly lexical are noticed. It was the national and official language of Algeria after one year of independence in 1963. It is a Semitic language which belongs to the Afro-Asiatic family. In the seventh and eighth centuries, Muslims came to Algeria to spread Islam using their Arabic language. Thus, the language spread especially because of its association with religion (*Qur’an*). MSA is written in official documents of the government, and used in formal settings such as: education, media, newspapers, speeches delivered by politicians, literature, mosques and universities, especially in literary fields. Algeria is part from the Arab world, thus MSA is considered as a lingua franca among Arabs.
1.9.1.2 Algerian Arabic

Algerian Arabic or colloquial Arabic is a subdivision of MSA. It is the medium of daily interaction among Algerians. It is acquired at home for communication in informal settings: street, home, market…. Chemami (2011) states that 70% of Algerians use it as a mother tongue, while about 30% acquire one of the Berber varieties.

AA is characterized by borrowing. This is due to many historical events, civilizations and cultures that Algeria witnessed through many centuries. For example, words from Spanish are adapted to AA due to the Spanish invasion especially in the west of Algeria “Oran” in 1732, for instance: ‘couzina’ (la coucina) which means ‘kitchen’.

Due to the Ottoman occupation in the sixteenth century, many Turkish words became parts of AA. For instance, the morpheme (dji) which refers to the doer, in words such as: qahwadżɪ (the waiter).

AA also got words from Berber, this is because of the mixture of Algerians with Berbers in big cities like Algiers (khodmi, smiqri...). (knife) (frozenness). However, Fr is the most influential language on AA due to the long era of colonialism and contact with French people. There are core borrowings when there are no equivalents in AA, and cultural borrowings when there is an equivalent but still Algerians keep using French words (frigidaire, tabla, sac, vista….)(fridge, table, bag, coat).

There are some phonological (accent) and lexical differences among AA speakers, but still there is mutual intelligibility. AA constitutes a dialect continuum with other Maghrebi dialects: Morocco and Tunisia.

1.9.1.3 Berber

Br was considered as a national language in April,10th 2002 by the constitutional amendment, but in February 2016 it became an official language recognized by the Algerian constitution as a joint-official language with MSA;
which has a co-status. Berbers are said to be the first indigenous inhabitants of Algeria; they settled down because of trade, so they brought their language. Br is written in two scripts: Latin letters and Tifinagh.

Br is used in media, radio, advertising, instruction. However, it is limited in some places. Br is a Hamito Semitic language spoken by over five millions, in distinct areas like Egypt, Mali, Niger, Tunisia Morocco, and Algeria.

In Algeria, Br has different varieties located in different areas: Chaouia (Ta chawit) in Aures (Batna and some neighbouring cities like Oum El Bouaghi and Khencbla). Kabyle (Ta kbaylit) in Kabylia: Tizi-Ouzou, Bejaia, Jijel. In addition to small Kabylia which includes parts from Algiers, Setif, Bordj Bou Arreridj, Mozabite in Mzab (Ghardaia). Touareg in the south (Hoggar). Chenoua in Chercherl and Tipaza. Tamashekht in the Sahara.

In the last years, there have been many attempts to spread Tamazight widely in Algerian schools, but they always face opponents.

1.9.1.4 French

Although Fr has no official status in Algeria, it is widely used in many domains. This is due to the long period of French colonization (132 years). Fr is used in various domains. It is taught at schools starting from primary school, until university. Being considered as a foreign language used in discussions, in speeches delivered by officials, in some administrations as in banks and post offices, in higher education where technical sciences like: Biology and Medicine are taught in Fr. It is taught in primary school from third year till secondary school as a second foreign language. It is also found in media and some newspapers. Algerians are influenced by Fr. Thus, it has a covert prestige since they regard it as the language of civilization and development. Moreover, the mastery of Fr is required in many jobs i.e., a francophone has better chances to work than an Arabophone. The relationship between AA and Fr gives birth to extended diglossia. This variation has resulted in some outcomes of language contact phenomena.
1.9.2 Language Contact in Algeria

Algeria is a very complex language context where various language contact phenomena are found; multilingualism, CS, borrowing and diglossia.

1.9.2.1 Multilingualism

Multilingualism is the ability to use two or more languages. It is safe to say that Algerians are bilinguals in the broad sense of the term. Many Algerians master Fr, Berber, or both with different degrees; some are passive, while others are active. Most of them are late bilinguals since they learn Fr in the primary school. Educated people; doctors, teachers are bilinguals using Fr frequently. Speaking at a micro-sociolinguistic level, individuals master different languages. For instance, some Algerians master Turkish, Spanish, Chinese and Italian because of the wide exchanges and commerce between these countries and Algeria, in addition to tourism. This multilingual situation motivates Algerians to switch between different varieties.

1.9.2.2 Code Switching

CS is the alternation between two languages among bilinguals. Algerians often switch to Fr in almost all their speech. For example: c’est pas vrai! (no way!). Sometimes, CS occurs by purpose in order to show prestige or demonstrate language skills, but sometimes, it happens unconsciously when there is a lack of vocabulary.

Algerians also switch to MSA, but only for special functions, for instance, when speaking about religious topics, when quoting or giving proverbs. Berbers switch to Tamazight for some reasons like to show group identity or to exclude others from their speech. CS is also found in written slogans and advertisements in streets and shops. Sometimes CS pave the way to borrowing.
1.9.2.3 Borrowing

It is the bi-product of language contact where lexical items are adapted phonologically, morphologically and syntactically from one language to another. In Algeria, many borrowed words are adapted from many languages, for instance: Turkish, Spanish, Berber. Borrowed words are integrated in AA and they became part of its lexis and even monolinguals use them without being aware of that. For example: ça y est which means (that’s it), camion (truck) tiliphone (mobile phone). Most of borrowings are taken from Fr because of the long period of colonization and the contact with French people, or when certain words have no equivalent in AA, for instance: télécommande (remote control). Algeria is also a diglossic speech community.

1.9.2.4 Diglossia

Diglossia is the use of two varieties (H) and (L) in different contexts. Algeria is one of the best examples of diglossia.

According to the nine rubrics proposed by Ferguson (1959), H and L are distributed as follows in Algeria:

**Function:** MSA is associated with formal and official settings, AA is used in informal contexts.

**Acquisition:** AA is acquired from infancy, while MSA is learned at school. Some acquire Berber as a mother tongue.

**Standardization:** MSA is strictly standardized, AA in non-standard.

**Phonology:** MSA and AA phonological systems are somehow different from one another.

**Prestige:** MSA is prestigious because of its association with Quran, and literature, AA is non-prestigious.

**Literary Heritage:** All literature is written in MSA, some folk literature in AA.

**Grammar:** MSA has a more complex grammatical system than AA.

**Lexicon:** Vocabulary is shared between MSA and AA. However, some words from MSA have no equivalent in AA and vice versa.
**Stability:** The situation is relatively stable for centuries.

The issue tackled in this work is code switching in the Algerian classrooms. Thus, it is necessary to spotlight on education in Algeria.

### 1.10 Education in Algeria

After independence, education in Algeria has witnessed a set of changes which attempted to reconsider some weaknesses.

#### 1.10.1 Historical Overview about Education in Algeria

During colonization, France tried to erase most of educational settings in Algeria. It got rid of 1000 primary and secondary schools in the 1830s. Then, education was restricted only in madrasas (Qur’anic schools). Only 10% of Algerians were literate as stated by Benrabah (2001). After that, France tried to build some schools not for providing knowledge and civilization to Algerians, but to create job chances to French teachers. After independence, Algerian policy makers tried to reconsider education through some reforms.

#### 1.10.2 The Educational System in Algeria

The system of education in Algeria is divided mainly into four major stages. First, the Primary (elementary school), where pupils go to school starting from the age of 6 to 11 years old (for 5 years) and they end up with a test. Second, the Middle School, in which they start approximately from 11 to 15 years old (4 years) ending with an exam called “Brevet or BEM”. The next level is Secondary School, in which pupils generally enter it from 15 to 18/19 years old (3 years) they end with the most important exam called “Baccalaureate”. In this stage, there are literary and scientific streams where pupils are free to choose. Finally, after passing the Baccalaureate exam which is necessary to move to the next level. Pupils will be
oriented to study at university, in which there are many fields distributed in distinct universities (50 universities).

Pupils study Fr as a second foreign language, English as a foreign language, in addition to other languages in secondary school: Spanish, German.

Education in Algeria is free and compulsory.

The Algerian university follows the LMD system: three years for License, two years for Master and three years for Doctorate (PhD).

Primary, middle and secondary schools are under the ministry of education, while university is under the ministry of higher education and scientific research.

1.10.3 Language Policies in Algeria

There are two main language policies which affected education in Algeria: the Arabicization Policy that took place between 1962 and 1999, and the Educational Reform Policy in 2003.

1.10.3.1 The Arabicization Policy

After independence from French colonization, there were some language policies set by the government, which aimed to revive Algerians’ identity through reintroducing MSA and claiming it as a language of education akin to the other domains like administrations which were Arabized because Arabic is the language of Islam and the Quran. In addition, it represents a cultural heritage from ancestors. Moreover, because it is the language of the Arab nation and identity. It has gone through many steps:

a-Arabicization of Culture:

It happens through Arabizing cultural settings: theatres; cinemas, magazines, radio and television, and by encouraging the use of Arabic in cultural domains through changes of the names of streets using Algerian names of martyrs or famous
figures and writing them in Arabic scripts, and also some institutions like economic industries.

b-Arabicization of Education:

In the first years of independence, there was no big change in the method of teaching; it stayed the way it was with the French colonization. This is because there was a lack of qualified teachers of Arabic. Thus, the Algerian government decided to bring expatriate teachers from the Middle East: Syria and Egypt to teach in Algerian schools in 1963-1964 through adding courses of Islamic Sciences and Arabic lecture.

c-Arabicization of Administration:

It happened through Arabizing the official documents of the Algerian administration to be given to citizens.

1.10.3.2 Educational Reform Policy

Starting from 2000, the Algerian government shed lights on promoting education in Algeria by developing the Algerian teachers' socioeconomic and competency levels and increasing their number. According to Chemami (2011) there was an establishment of new curricula and revisions for the status of the existing languages. Behind that order, historical and political alliances were taken. This was done by the Commission of the National Reform of the System of Education (CNRSE) which was created in March 2000 and composed of 153 teachers and linguists. Their aim was to improve the level of education by introducing new methods of teaching, for example the Competency Based Approach (CBA).
1.11 Conclusion

CS is a sociolinguistic phenomenon which occurs in many communities around the world, and in Algeria particularly due to many reasons, which have been already mentioned. Since Algeria is a complex language situation, its speakers tend to switch to a large extent, sometimes even without being aware. This linguistic behavior does not happen only in society, but also in educational settings where teachers and pupils often switch from MSA to AA or Fr for different reasons.

The first chapter has dealt with some theoretical considerations about CS. It has provided definitions, types, reasons proposed by various scholars and some related key concepts to CS. Then, it has tackled the sociolinguistic situation in Algeria. It has presented an overview about education in Algeria and the main language policies which Algeria has gone through. The second chapter will be devoted to the case study. It will contain reporting, analyzing, interpreting and discussing the findings.
Chapter Two: The Case Study
2.1 Introduction

The second chapter is devoted to the practical part. First, it tackles some methodological concerns of this research. Later, it describes the setting of the study and deals with the type of research method and the sample population. Then, it comes to present the research instruments used for data collection. Finally, it analyses, interprets and discusses the results obtained from the informants in an attempt to answer the research questions and check hypotheses in order to confirm or infirm them. This research was conducted in Ahmed Ben Zekri secondary school in Tlemcen. The researchers used classroom observation and teachers’ interview as tools for data collection. The results obtained from these tools were analyzed quantitatively and qualitatively.

2.2 Methodological Concerns

This research aims to uncover how MSA, AA and Fr are used in scientific and literary courses in the Algerian scientific stream classrooms in the secondary school, since these codes exist side by side in Algeria. Moreover, the researchers seek to look for the reasons behind switching from one variety to another during both scientific and literary courses.

2.3 Situation Analysis

For the sake of exploring CS in the Algerian educational context, and in order to explain the reasons which lay behind such a phenomenon, this study was carried out in Ahmed Ben Zekri secondary school in Tlemcen. This school which is also known as ‘lycée polyvalent’, includes a large population in terms of teachers (60 teachers) and pupils coming from different regions, with different linguistic backgrounds. There are two streams starting from second year: Sciences and Letters. Pupils of the first year, second and third year use different varieties: AA, MSA, in addition to Fr and English as foreign languages.
The sample of this study was a second year scientific classroom. The chosen courses were two scientific courses: Physics and Natural Sciences, and two literary courses: History and Islamic Sciences. Concerning scientific subjects, four hours per week are devoted for each one, while the number of hours in the week for literary courses is two hours for each one.

2.4 Case Study

The case study is a research method which relies on the study of an instance, a group of people or a community. According to Yin (1993:11) a case study “refers to an event, an entity, an individual or even a unit of analysis. It is an empirical inquiry that investigates a contemporary phenomenon within its real-life context using multiple sources of evidence”.

There are various types of the case study. It can be chosen according to the number of units. Either the single case study if the researcher takes only one case from the target population, or the collective case study which takes more than one entity for the sake of comparison. In the other hand, the aim of research can be served by: explanatory, explanatory or descriptive case study.

The explanatory case study has the objective of looking for the reasons of a specific issue. It answers the question ‘why’. The descriptive case study describes a given problem. It attempts to answer the question ‘how’. The exploratory case study looks for solutions and suggestions of a phenomenon. It answers the question ‘why and how.’

In this study, the researchers selected a single exploratory case study taking one classroom and they attempted to compare the varieties used in literary and scientific courses and to look for the reasons as well.

2.5 Sample Population

Sampling is the process where the researcher choses his/her target population that he/she will undertake the research with. It aims to limit the scope of the study,
to save time and efforts, answer research questions, to prove or reject hypotheses and finally to achieve generalization, which is not necessarily always reached because it is tightly related with the number of the sample; the larger the sample is, the more results can be generalized.

In this research, it was a non-probability (purposive) sampling. Since the researchers’ purpose was targeted only to scientific stream, they chose a sample which is identical to their objective. This latter was composed of teachers and pupils from Ahmed Ben Zekri secondary school in Tlemcen. There were eight teachers; two of History, two of Islamic Sciences, two of Natural Sciences and two of Physics (males and females), in addition to thirty-eight pupils of second year scientific stream. The researchers chose a near setting to their living regions so that they would be able to be in touch with the target population. At first, it was difficult to have permission in order to get access to school and conduct the research. The present study was done in November 2018, because at that time pupils had already done their tests and they were about to take their exams. This made the study easy to be conducted.

Practicing observation was easy. Two sessions were devoted for each one of the four subjects. However, the researchers found difficulties when conducting the interview. When starting their interview, the sample was not wholly collaborative; two of these interviewees felt afraid of being evaluated either at the level of skills proficiency or linguistic competence, even though they were told that it was just a linguistic study, and they started asking detailed questions about the reasons behind the research. After a long explanation, the researchers ensured anonymity and non-evaluation. Hence, they felt at ease and gave answers.

**2.6 Research Instruments**

The researchers used two different tools which are teachers’ interview and classroom observation for the sake of having both quantitative and qualitative data, and because using more than one research tool provides more reliability and validity to the work.
The following diagram summarizes the design of this chapter.

![Diagram of research design]

**Figure 2.1 The research design**

2.6.1 Classroom Observation

Observation is a research tool that is used to gather data about people's attitudes, behaviours and actions. It is beneficial in the sense that it helps to gain data from real situations. Furthermore, it allows to confirm or reject hypotheses.

In this study, the researchers used a structured observation where they developed a grid and prepared in advance what to observe. The researchers were non-participants. They were just sitting at the back and taking notes about what they observed in relation to the grid. It was a disguised observation because pupils did not know the researchers' aim and teachers were not given details. They were just told that it is a linguistic study after being asked about their permission because doing observation in such a way makes participants behave in a natural manner.
As mentioned before, both teachers and pupils were observed. The main focus was on observing the switch between MSA, AA and Fr and the frequency of the use of each code as well as the reasons behind that use, in addition to teachers' reactions towards their pupils' use of each variety and vice versa. Therefore, in this research work, observation tends to provide answers for both research questions.

Observation was practiced with a second year scientific classroom in Ahmed Ben Zekri secondary school. The sample population was observed during eight sessions, ie., two sessions were devoted to each; (Natural Sciences, Physics, Islamic Sciences and History). They were sessions of one hour from November to December 2018.

2.6.2 Teachers’ Interview

As a research tool, the interview is defined as conversation or meeting between the interviewer and the informants who respond to the interviewer’s questions. Interviews are useful in the sense that they may be conducted face to face, over telephone or via internet options as e-mails, skype and the like.

Boyce and Neale (2006, np) define this research instrument as: “conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, programme or situations”. This means, it is a helpful data collection tool that is used in order to get information about people's opinions, attitudes and facts about a given topic. Moreover, it is beneficial for researchers when dealing with questions that need to be answered directly. In addition, whenever a question is not understood, it is reformulated by the interviewer.

There are three types of interview according to Cohen et al (2007), the structured, the semi-structured and the unstructured.

Structured interviews take place orally where all the respondents answer the same questions that were prepared previously by the interviewer who uses the same wording with all the interviewees. This type helps to get both quantitative and qualitative data unlike the other two types which only provide qualitative data. That is why the researchers in this study opted for this type. In addition, it is less time
consuming, and enables researchers to compare answers and analyze data easily in comparison to the other two types. On the other hand, the semi structured interview constitutes a general outline about the main points that will be discussed. Hence, the interviewer asks questions without following a specific order or wording. Then in the third type which is the unstructured interview. The researcher just explains the topic for the informants, and they discuss freely by giving their attitudes and opinions.

As mentioned before, the structured interview was used in this research in order identify the reasons of CS. The interview was delivered to eight teachers of the following subjects: Islamic Sciences, History, Natural Sciences and Physics.

The researchers asked some questions related to the varieties used by teachers and others related to their pupils’ switch. (See appendix A)

2.6.2.1 Questions Related to Teachers’ Code Switching

The first question aimed to compare the varieties used by teachers of literary courses as opposed to those of scientific courses. Moreover, the second sought to know the factors of switching to AA and Fr.

2.6.2.2 Questions Related to Pupils’ Code Switching

The first three questions related to pupils’ switch aimed to uncover the factors that lead pupils to switch between MSA, AA and Fr. The last question aimed to identify the percentage of switching to each variety.

2.7 Results

In this research, the investigators attempted to investigate CS in Ahmed Ben Zekri secondary school as an Algerian educational setting. In order to study this sociolinguistic phenomenon in such a context, the researchers analyzed the data obtained from teachers’ interview and classroom observation.
2.7.1 Analysis of Classroom Observation Data

The researchers conducted eight sessions of classroom observation. Two for each of the following courses: History, Islamic Sciences, Natural Sciences and Physics. There were thirty-eight pupils (males and females) and the four teachers of the previously mentioned subjects. The time of observation was two hours for each session. The results are displayed in the following tables.

The table below shows the frequency of CS among teachers of scientific courses.

**Table 2.1 Code switching frequency among teachers of scientific courses**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Use of MSA</th>
<th>Use of AA</th>
<th>Use of Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

During scientific courses, the researchers observed that the 4 teachers of scientific courses always switched between MSA and AA. They sometimes switched to Fr. This is due to some reasons that will be shown in the following tables.

The two tables below show the reasons of switching between MSA, AA and Fr by teachers of scientific courses. The observers illustrated each reason by one or two examples.
<table>
<thead>
<tr>
<th>Reason</th>
<th>Examples</th>
<th>Reason</th>
<th>Examples</th>
<th>Reason</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>*To explain the lecture.</td>
<td>* ál hadaf min ha:ða lmuṣṣaṭṭaḥ howa qiːża:s ?anna:qilija (The aim of this graph is to measure conductivity) *ṣiba:rat ʕaːbit ʕalaːja hɪː. (the static cell statement is).</td>
<td>*To give instructions and description when conducting an experiment.</td>
<td>*nqiːsu nnaːqilija (We measure conductivity) *nyṭarru ʕifkira mna ssanad (we extract the idea from the document).</td>
<td>*To talk about scientific terms.</td>
<td>*juḍbaṭ ttawaː tor ʕinda ɗeux Voltes (Frequency should be adjusted two volt).</td>
</tr>
<tr>
<td>*To dictate the lecture to be written on the board.</td>
<td>*ʔinṭilaːqan mna lmuːnḥana: ʕalaːqaːsa hɪː. (based on the graph, the conclusion is as follows). *maːða jumaːθooːl (what does it represent?).</td>
<td>*To emphasize a point.</td>
<td>*jaːk qoːlna ʔaːnına ddaːra tumaːʊl (we already said that the diagram represents..).</td>
<td>*To ease communication</td>
<td>*Glucose / Glycogène/Insuline (glucose, glycogen, insulin) *ʕard ssanad un et ɗeux(Presenting bound one and two).</td>
</tr>
<tr>
<td>*To ask questions.</td>
<td>* To convey exact meaning.</td>
<td>* To provide equations about physics.</td>
<td>*briːsibaːratn ʕaːraː: bəːʕ naːʕfarfu nnisba ( in other words, to know the percentage).</td>
<td>*To capture attention.</td>
<td>*La semaine prochaine ʕandkʊm devoir (Next week you will sit for the test).</td>
</tr>
<tr>
<td>Teachers of Scientific Courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*Deux virgule cinq, sigma. (two and half sigma).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*G égal k sigma(G=K6).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*Alors. (so).</td>
</tr>
<tr>
<td>Teachers of Scientific Courses</td>
<td>Use of MSA</td>
<td>Inclusion of AA</td>
<td>Inclusion of Fr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------</td>
<td>----------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reason</td>
<td>Reason</td>
<td>Reason</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Examples</td>
<td>Examples</td>
<td>Examples</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*To give instructions.</td>
<td>*To negotiate with greater authority.</td>
<td>*To name devises of physics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*To end the lecture.</td>
<td>*To ask questions out of the lecture.</td>
<td>*To establish good will and support.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*ri:da k?a?na ha:đa dars ljîwîm(so this was today’s lecture).</td>
<td>*?ko:n râ:hi l?dî:r l?fawḍa(who is disturbing?).</td>
<td>*To utter numbers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*bien (good).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*quatre, page vingt (four, page twenty).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Voila, d’accord (that is it, alright).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Teachers used MSA to give instructions about the lecture. They switched to AA in order to clarify ideas, and to Fr to fill linguistic gaps and to talk about scientific terms.

*Pupils’ Reaction:

When the teachers used MSA, pupils answered in MSA but they also switched to AA and Fr. When the teachers used AA, their pupils interacted with them using AA. Pupils switched to Fr whenever the teachers switched.

The table below shows the frequency of CS by pupils during scientific subjects.

**Table 2.4 Frequency of pupils’ switch in scientific courses**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Use of MSA</th>
<th>Use of AA</th>
<th>Use of Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Pupils during scientific courses always switched to AA either with teachers or with each other. They sometimes used MSA especially when answering questions. They sometimes switched to Fr when speaking about scientific terminology or devices of Physics.
The reasons and examples that the researchers observed are demonstrated in the following two tables.

Table 2.5 Code switching among pupils in scientific courses

<table>
<thead>
<tr>
<th>Use of MSA Reason</th>
<th>Examples</th>
<th>Inclusion of AA Reason</th>
<th>Examples</th>
<th>Inclusion of Fr Reason</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>*To communicate more effectively.</td>
<td>*jumāḥθīl ḥaːḍa ˈraːsm ṣannaːqīlīja (This graph shows conductivity)</td>
<td>*ṭṭīːχ ʾnmdndːr ṭṭaːrūbə (sir, can I make the experiment)</td>
<td>*ṭṭīːχ ᵃʃliːf Ṉoːxɾəʒ (sir, may I go out).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* To talk about a particular topic.</td>
<td>*mawɗʊːʕ ḥaːḍa lbaːθ ḥuwa…. (the research topic is …).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*To answer questions.</td>
<td>*ʔannatiːzə hīja (the result is).</td>
<td>*ṭṭīːχ ᵃʃlaːf iktaːb lqdtm ṣaːfī: kīma ẓẓdːd (sir the exercise in the old book is not the same as the new).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pupils in Scientific Courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2.6 Code switching among pupils in scientific courses

<table>
<thead>
<tr>
<th>Use of MSA</th>
<th>Inclusion of AA</th>
<th>Inclusion of Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reason</strong></td>
<td><strong>Examples</strong></td>
<td><strong>Reason</strong></td>
</tr>
<tr>
<td><em>To convey exact meaning</em></td>
<td><em>jumāthīl</em> lmunhāna:… (the curve represents…)</td>
<td><em>ʔana sābnt nnaṭi:ṣa zoẓ (I found result two).</em></td>
</tr>
<tr>
<td><em>annāṭi:ṣa hija (the result is…).</em></td>
<td></td>
<td><em>ʔaḥla:la ha:ssa:Ṣa (what time is it?).</em></td>
</tr>
<tr>
<td><em>To ask questions.</em></td>
<td><em>ʔūstā:da ttamari:n tašlfard jko:no: ha:kda (are the activities of the test the same as those?).</em></td>
<td><em>To ask questions.</em></td>
</tr>
<tr>
<td><strong>Reason</strong></td>
<td><strong>Examples</strong></td>
<td></td>
</tr>
<tr>
<td><em>To discuss with classmates.</em></td>
<td><em>La valeur</em> (The value).</td>
<td></td>
</tr>
<tr>
<td><em>On vas essayer (we will try).</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>ʃi:χ kajan deux méthodes? (Sir are there two methods?).</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pupils in scientific courses switched between the three varieties for the above mentioned examples.

**Teachers’ Reaction**

-The teachers appreciated the use of MSA by their students. They were flexible when their pupils switched to AA and Fr.
As far as CS in literary classrooms is concerned, this tables shows its frequency among teachers.

**Table 2.7 Code switching frequency among literary teachers**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Use of MSA</th>
<th>Use of AA</th>
<th>Use of Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Always</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During literary courses, the 4 teachers always used MSA, but they also sometimes switched to AA. The 4 teachers never switched to Fr.

The reasons and examples are shown in the following table.
### Table 2.8 Code switching among teachers of literary courses

<table>
<thead>
<tr>
<th>Use of MSA</th>
<th>Inclusion of AA</th>
<th>Inclusion of Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reason</strong></td>
<td><strong>Examples</strong></td>
<td><strong>Reason</strong></td>
</tr>
<tr>
<td><em>To introduce the lecture.</em></td>
<td><em>sawfa nukmīl ma: tabaqa: lana mīna ddars</em> (we will continue what is left from the previous lecture).</td>
<td><em>To strengthen a request.</em></td>
</tr>
<tr>
<td><em>To ask questions.</em></td>
<td><em>fārī muṣṭaḷah līttuḥa:d lītfī:qi</em> (the explanation of the term African Union).</td>
<td><em>To reformulate questions for emphasis.</em></td>
</tr>
<tr>
<td><em>To negotiate with greater authority.</em></td>
<td><em>ma:ḥiṣa ?ahda:f līazy w ᵃʔōʔaqa:fi:</em> (what are the purposes of the cultural invasion?).</td>
<td><em>To negotiate with greater authority.</em></td>
</tr>
<tr>
<td><em>To answer questions.</em></td>
<td><em>ḥa:ḏīḥi ᵃḥda:ḥira ᵃḥja līazy w ᵃʔōʔaqa:fi:</em> (this phenomenon is cultural invasion).</td>
<td><em>To establish good will and support.</em></td>
</tr>
</tbody>
</table>
When observing teachers of literary courses (History and Islamic Sciences), the researchers noticed that they encouraged the use of MSA. In addition, they refused and discouraged the use of AA by their pupils by giving them negative comments. They did not switch to Fr and they refused their pupils’ switch to Fr.

*Pupils’ Reaction:

When observing pupils’ reaction, the researchers noticed that sometimes even being asked in MSA, they replied switching to AA. Whenever teachers of literary courses switched to AA, their students always switched to AA. Moreover, pupils avoided using Fr.

The table below indicates how often pupils switch during literary subjects.

**Table 2.9 Frequency of pupils’ switch in literary courses**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Use of MSA</th>
<th>Use of AA</th>
<th>Use of Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Always</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pupils in literary subjects always used MSA, and sometimes switched to AA. However, they never switched to Fr.

The reasons and examples of CS are shown in the following table.
### Table 2.10 Code switching among pupils in literary courses

<table>
<thead>
<tr>
<th>Pupils in Literary Courses</th>
<th><strong>Use of MSA</strong></th>
<th><strong>Inclusion of AA</strong></th>
<th><strong>Inclusion of Fr</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reason</td>
<td>Examples</td>
<td>Reason</td>
</tr>
<tr>
<td></td>
<td><em>To answer questions.</em></td>
<td><em>taqālī:d lāyār (To imitate the Western World).</em></td>
<td><em>To ask for clarification.</em></td>
</tr>
<tr>
<td></td>
<td><em>To discuss points.</em></td>
<td><em>?attakāː;muna l?qtasāːːdiː huwa (economic integration is).</em></td>
<td><em>To talk about topics out of the lecture.</em></td>
</tr>
<tr>
<td></td>
<td><em>To answer homework questions.</em></td>
<td><em>?alqūjam l?filmaː?ja hja (social values are...).</em></td>
<td></td>
</tr>
</tbody>
</table>
Pupils in literary subjects avoided CS to Fr because in most cases, their teachers gave them remarks not to use this language.

*Teachers’ Reaction:*

Teachers in literary courses encouraged the use of MSA by their pupils (ʔahsant) (excellent…) to motivate them to use MSA. Teachers sometimes refused their pupils use of AA.

### 2.7.2 Analysis of Teachers’ Interview Data

The objectives of this research were to explore CS between MSA, AA and Fr in both scientific and literary courses as well as to look for the reasons behind the use of each code in such a context.

The nature of these questions pushed the researchers to choose teachers’ interview as a tool and to analyze the data gathered from this research instrument. As already mentioned, the interview was submitted to eight teachers: two of each subject. It was a structured interview composed of 4 main questions and other sub-questions.

The interviewees were given the same questions, structured and divided into two sections as follows: questions related to teachers’ CS and questions related to pupils’ CS. The results are presented in the following tables.

These two tables show the answers given by both teachers of literary and scientific courses concerning their CS.
<table>
<thead>
<tr>
<th>Answers</th>
<th>Teachers of literary courses</th>
<th>Teachers of scientific courses</th>
</tr>
</thead>
</table>
| **Answer 1**  
The varieties used by teachers when teaching | 3 out of 4 teachers (2 of Islamic Sciences, 1 of History) said that they use MSA and AA. Moreover, they reported that they do not switch to Fr. On the other hand, 1 teacher of History said that he relies only on MSA when delivering lectures. | The 4 teachers of scientific courses (Physics and Natural Sciences) said that they use MSA and switch to AA as well as to Fr when it is necessary. |
| **Answer 2**  
Teachers feel the need to switch to: AA in order to: | 3 out of 4 (1 of History, 2 of Islamic Sciences) replied that they switch to AA:  
- For clarification when pupils find difficulties in understanding because they believe that understanding happens better through mother tongue.  
- When providing pupils with examples from real life situations.  
- To simplify complex ideas.  
- They consider some pupils’ low linguistic background in MSA.  
- To keep students motivated and attract them whenever they are not concentrated. | The 4 teachers of scientific courses said that they switch to AA for multiple reasons:  
- Switching to AA sometimes happens unconsciously.  
- It is something habitual.  
- It is easier to get information through AA. |
Table 2.12 Teachers’ code switching

<table>
<thead>
<tr>
<th>Answers</th>
<th>Teachers of literary courses</th>
<th>Teachers of scientific courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The 4 teachers said that they do not feel the need to switch to Fr.</td>
<td>The teachers said that they switch to Fr in order to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-To provide pupils with scientific terms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-To name devices, units.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-To provide numbers of equations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-They switch when making experiments in Natural Sciences and Physics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-To prepare pupils who will choose a scientific speciality at university since the lectures are delivered in Fr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-They believe that Fr is the language of science.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-When there is no equivalent of a word in Arabic.</td>
</tr>
</tbody>
</table>

Answer 2

Teachers feel the need to switch to: Fr in order to

The above two tables reveal that teachers of scientific courses are in need to switch to Fr contrary to those of literary courses. However, they both feel the need to switch to AA.

The teachers’ answers related to their pupils’ CS are reported in the following three tables.
<table>
<thead>
<tr>
<th>Reasons of pupils’ use of MSA</th>
<th>Teachers of scientific and literary courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Answer 3</strong></td>
<td>- 5 teachers out of 8 of both scientific and literary courses answered that pupils use MSA to ask questions.</td>
</tr>
<tr>
<td></td>
<td>- 6 teachers answered that pupils use MSA to answer questions rather than AA.</td>
</tr>
<tr>
<td></td>
<td>- 4 teachers (3 of Literary courses and 1 of Scientific courses) reported that pupils use MSA to discuss points.</td>
</tr>
<tr>
<td></td>
<td>When asked about other reasons, the teachers reported that:</td>
</tr>
<tr>
<td></td>
<td>- Pupils use MSA to provide definitions or quotations.</td>
</tr>
<tr>
<td></td>
<td>- Pupils with higher level use MSA when participating.</td>
</tr>
<tr>
<td></td>
<td>However, pupils with less proficiency use it when uttering one word answers.</td>
</tr>
<tr>
<td>Reasons of pupils’ switch to AA</td>
<td>- 3 teachers out of 8 (literary and scientific courses) answered that their pupils switch to AA to ask questions. Only 2 teachers said that their pupils use AA to answer questions and 4 teachers (1 of literary courses and 3 of scientific ones) answered that pupils use it to discuss points.</td>
</tr>
<tr>
<td></td>
<td>When asked about other reasons of CS to AA they said:</td>
</tr>
<tr>
<td></td>
<td>- There is a lack of linguistic competence in MSA for some pupils.</td>
</tr>
<tr>
<td></td>
<td>- They fear to commit mistakes and to be corrected in front of mates.</td>
</tr>
<tr>
<td></td>
<td>- Some pupils express their ideas better through AA, they use it to ease communication and to provide examples.</td>
</tr>
</tbody>
</table>
### Table 2.14 Pupils’ code switching

<table>
<thead>
<tr>
<th>Answers</th>
<th>Teachers of scientific and literary courses</th>
</tr>
</thead>
</table>
| **Pupils’ switch to Fr** | The 4 teachers of literary courses answered that their pupils do not switch to Fr during their courses neither to ask questions nor to answer or to discuss points.  
-The 4 teachers of scientific courses said that pupils do not switch to Fr in order to ask questions nor to answer or discuss points. Yet, they use it for other reasons:  
- To provide technical terms.  
- Whenever there is no equivalent in Arabic.  
- To show linguistic abilities and Fr mastery.  
- Sometimes, the switch happens unconsciously.  
- Some pupils are influenced by cultural and family backgrounds. |
| **Answer 4**  
A: The frequency of pupils' switch to AA | A- Teachers of literary courses:  
Among the 4 teachers, 2 of Islamic Sciences and 1 of History said that switching to AA happens sometimes, 1 said that pupils always switch to AA.  
- They estimated CS to AA by pupils between: 40 % and 50%.  

b- Teachers of scientific courses:  
2 teachers said that their pupils sometimes switch to AA, in the other hand, 2 said that theirs always switch to AA.  
When asked about the percentage of CS to Fr, they said it is around 70%. |
Table 2.15 Pupils’ code switching

<table>
<thead>
<tr>
<th>Answers</th>
<th>Teachers of scientific and literary courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B: The frequency of pupils' switch to Fr</strong></td>
<td>All the 4 teachers of literary subjects answered that their pupils never switch to Fr, on the other hand, 1 of Natural Sciences said that pupils sometimes switch to Fr. 1 of Natural Sciences and 2 of Physics reported that switching to Fr occurs always by pupils.</td>
</tr>
<tr>
<td><strong>The percentages given by teachers about switching to Fr:</strong></td>
<td>Teachers of literary courses said 5%, while teachers of scientific subjects replied that it is between 60% and 75%.</td>
</tr>
</tbody>
</table>

The above three tables related to pupils’ CS reveal that CS occurs to fill linguistic gaps. Moreover, teachers of scientific courses are more flexible towards switching to AA and Fr by their pupils in comparison to teachers of literary subjects. As such, pupils during scientific sessions tend to switch more than in literary sessions.

**2.8 Interpretation and Discussion of the Main Results**

CS is a sociolinguistic phenomenon which occurs in Algeria, especially in education which is the researchers’ concern so as to uncover the varieties used in literary courses in comparison to the scientific ones. Moreover, to know the causes which lead both teachers and pupils to switch from one variety to another.

Regarding the first hypothesis which claims that MSA, AA and Fr are used in scientific courses, while only MSA and AA are used in literary ones, interesting findings were obtained. The teachers’ interview and the classroom observation
revealed that teachers and pupils in scientific courses use MSA which is the language of instruction. Moreover, MSA symbolizes the language of Quoran which has great value. It reflects their identity and belonging to the Arab nation. In addition, it is a high variety associated with formal contexts. It is the standard language used in education. They sometimes switch to AA as it is the mother tongue in Algeria and as such the daily medium of interaction. AA facilitates understanding since there is a variability among pupils’ proficiency in MSA. AA is also used because Algeria is a diglossic speech community and Algerians get used to AA. They better express their thoughts in AA. The switch to AA is habitual and happens unconsciously. The results also show that teachers and pupils switch to Fr in scientific courses. Yet, in literary courses, they switch only between MSA and AA as this latter is considered as a subdivision of MSA. Furthermore, the nature of literary subjects does not require Fr. Hence the first hypothesis is confirmed.

The second hypothesis raised by the researchers states that the reasons behind switching from one variety to another are as follows: MSA is used for instruction, AA is used for clarification of ideas, and Fr is used for the introduction of scientific terms. After the analysis, the researchers found that the main causes of using MSA were: MSA is the official language in Algerian education, it is used to dictate, to ask questions, to talk about a particular topic (religious topics in Islamic Sciences), to provide definitions, to begin and end the lecture. Pupils use MSA to present their research works and assignments. MSA is also used to quote verses from Quoran and Hadith. Teachers switch to AA because there is a variability in pupils mastery of MSA and thus, to clarify the explanation of ideas, to provide examples from real life situations, to make an emphasis about something, to ease communication, to convey exact meaning, to repeat in order to clarify, when teachers comment on their pupils behavior, to reformulate ideas or questions, some pupils express themselves better in AA. Pupils also switch to AA to discuss with each other. The switch to Fr was noticed in scientific courses for some reasons: to make communication easier, to capture attention, to make an interjection, to establish good will and support, to name technical terms, to name devices of Physics, equations, units and to do
experimentations. This switch is may be due to the lack of scientific register in Arabic. These reasons prove the second hypothesis.

Some of these reasons match with those that have been proposed by some scholars, among them: Gumperz (1982), Crystal (1987) and Hoffman (1991).

The results of this work go with other existing doctorate theses which dealt with CS in the field of education. One of them is ‘Ibrahim- Hashim Al-Huri’s thesis (2012). He conducted his research in El Yemen schools. Another one is Fatmi Fayçel (2018) who tackled this phenomenon in Algerian primary schools. Out of the Arab speaking world, S Rose and O van Dulm (2006) investigated the functions of CS in multilingual classrooms in South Africa where some of the reasons they mentioned are similar to this research.

The researchers’ point of view regarding CS in Algerian classrooms is that using more than one variety may affect pupils in a negative way. Thus, some implications are put forward.

2.9 Implications

Switching between codes in an educational context has always been a question of contention among educationalists and policy makers. Some scholars believe that CS is beneficial, while others like Cook (2001) see that it should be avoided. According to Norouzi and Namaghi (2015 para 9) “despite the pedagogical functions of L1, some practitioners dogmatically reject L1”. In this vein, the researchers of this work consider that CS may affect pupils negatively. Even if pupils and teachers are influenced by their social contexts, formal contexts require the linguistic purity and maintenance of language. CS decreases pupils’ proficiency. It can be a threat to MSA, it can affect their identity. In addition, it can be said that there is a specialization of function which characterizes and that should manipulate such a situation: MSA remains the formal high variety in Algeria akin to all the Arab countries, which is the appropriate variety for education and learning that should be given its value. AA on the other hand, should be decreased in schools,
and this requires efforts from policy makers, language planners, teachers and pupils, for the sake of developing learners’ competence and proficiency in MSA, and in order to preserve MSA and to respect rules of speech which suggest that the speaker is restricted by context and participants when speaking.

The researchers suggest the following:

* Suggestions related to the school environment.

The ministry of higher education may enhance the quality of future teachers by creating new specialities at university in order to graduate and prepare them for the task of teaching.

- Teachers can give students activities which require only the use of MSA (puzzles, fill in gaps, one-word answers, play roles…).
- Teachers may encourage pupils to speak MSA from the primary school by rewarding them.
- Pupils may exercise MSA by listening to media, reading books, or watching films.
- Pupils may also take decision to chat in the social networks using MSA in order to get used to and to encourage each other.
- Pupils may participate in the Arabic language events like the international day of MSA (18 December).

* Suggestions related to the family.

- Parents’ role is also important. They can encourage their children to use the standard language (MSA) from an early age so that it will not be difficult for them to learn it at school.
- It is advisable for parents to make their children having positive attitudes towards MSA from childhood by motivating them to read interesting stories, to watch cartoons in the standard language and to make full dialogues in MSA.

2.10 Conclusion

The second chapter has been devoted to the case study which the researchers chose for their practical part. It has presented the objectives of this research. Then, it
has described the context of investigation. It has also defined the case study, its types and purposes. Moreover, it has defined the sampling process and justified the choice of the researchers’ sample. It has provided some theoretical considerations about the research instruments which the researchers chose for collecting data namely; classroom observation and teachers’ interview. After presenting the research methodology, the researchers analyzed the data obtained qualitatively and quantitatively. After that, they have made an interpretation and discussion of the main findings. By the end, the researchers put forward some implications regarding CS in classrooms.
General Conclusion
General Conclusion

CS is one of the outcomes of language contact. It is the alternate use of two languages or language varieties in the same conversation by the same speaker.

CS is attested in many speech communities around the world, and the Arab speaking world is no exception. People tend to switch between one variety and another for different functions and in different social situations. The researchers have chosen the educational setting for its important role to investigate CS. In this study, the researchers took Ahmed Ben Zekri secondary school as a case study, they aimed to identify to what extent MSA, AA and Fr were used in the Algerian scientific stream classrooms by making a comparison between the varieties used in literary and scientific courses. In addition, they attempted to find the causes which led teachers and pupils to switch between codes.

This work was divided into two chapters. The first one tackled some theoretical considerations about CS and the theories of various scholars concerning the types and reasons behind CS. Then, it defined some related key concepts to CS. In addition, it included the sociolinguistic situation in Algeria by mentioning the varieties spoken in many parts of the country. After that, it shed light on language contact phenomena in Algeria. By the end, it provided an overview of education in Algeria. The second chapter was devoted to the case study. It included some methodological concerns and situation analysis. After reporting the results obtained from the teachers’ interview and the classroom observation, the researchers interpreted and discussed the main results. Finally, they provided some implications.

The investigators came up with interesting findings concerning CS in the Algerian classrooms. In literary courses, teachers and pupils used MSA and they sometimes switched to AA, but they did not switch to Fr. However, in the scientific ones they switched between MSA, AA and Fr. Teachers of literary subjects encouraged the use of MSA by their pupils, but they refused switching to Fr. Yet, teachers of scientific subjects used Fr and they were flexible when their pupils switch to Fr. This approved the first hypothesis which claims that MSA, AA and Fr
are used in scientific courses, while only MSA and AA are used in literary ones. The main reasons of CS were that each variety was used for a specific reason. MSA is the official language used for instruction. It is used to ask and answer questions by both teachers and pupils. It is used to present research projects and to dictate the lecture. Moreover, to talk about a particular topic as in Islamic Sciences. MSA is also used for quoting. The reasons of switching to AA were as follows: to ease communication, to convey exact meaning, to emphasize a point, to repeat in order to clarify, some pupils express themselves better in AA, to provide examples from real life situations, to discuss with classmates. Fr was used for some purposes: to capture attention, to make an interjection, to talk about scientific terminology, to provide equations about physics, to establish good will and support, to name devices of physics, to fill linguistic gaps because of lack of register. These results confirm the second hypothesis put forward by the researchers which suggest that the reasons behind switching from one variety to another are: MSA is used for instruction, AA is used for clarification of ideas and Fr is used for the introduction of scientific terms.

This research may help in reconsidering the actual varieties used in education by language planners and policy makers.

The researchers were hindered by some obstacles. It was first difficult to have the permission to get access to make data collection, but after many administrative procedures, they were finally allowed to enter the secondary school. It took them too much time to get in touch with teachers in order to conduct the interview. These limitations prevented the researchers to generalize the results. The researchers hope that in the future there would be less procedures and easier documents to let the researchers make data collection.

This study did not cover all aspects of CS in education. Further studies may tackle some issues such as: how may this switch affect the quality of education? Is CS a threat to the official language (MSA)? What are the solutions suggested to overcome this problem? Does this switch in the educational settings affects positively or negatively the learners’ level?
The researchers hope that future researchers would widen their sample and extend the period of research.
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Appendices
Appendix A: Teachers’ Interview
Teachers’ interview

Time:
Module:
This interview aims at identifying to what extent Modern Standard Arabic, Algerian Arabic and French are used in teaching / learning process during History, Islamic Sciences as they represent literary courses, and Natural Sciences and Physics as scientific courses. Moreover, to know the reasons behind the use of each variety.

Questions:
1 Which variety do you use when teaching: Modern Standard Arabic, Algerian Arabic, French?
2 When do you feel the need to switch to:
   * Algerian Arabic?
   * To French?

3 Do your pupils use MSA:
   * To ask questions?
   * To answer questions?
   * To discuss points?
If there are other reasons, please specify.

Do they switch to AA:
   * To ask questions?
   * To answer questions?
   * To discuss points?
     If there are other reasons, please specify.

Do they use French:
   * To ask questions?
* To answer questions?
* To discuss points?
  
  If there are other reasons, please specify.

4 - How often do your pupils switch to AA?

   Never □  Sometimes □  Always □

   - How much is the percentage of this use?

   - How often do they switch to French?

   Never □  Sometimes □  Always □

   - How much is the percentage of this?
حوار الأساتذة

المناعة:

المادة:

عدد الأساتذة:

يهدف هذا الحوار إلى تحديد إلى أي مدى تستخدم اللغة العربية الفصحى والدّارجة واللغة الفرنسية في مجال التعليم والتعلم في مادتي التاريخ والثورة الإسلامية باعتبارهما مادتين أبيبتيتين، وكذلك مادتي العلوم الطبيعية والفيزياء كمادتين علمييتيتين، إضافة إلى معرفة الأسباب وراء استعمال كلّ واحدة.

الأسئلة

1 ما هي اللغة التي تستخدمها خلال التدريس: اللغة العربية الفصحى، الدّارجة، اللغة الفرنسية؟

2 متى تحتاج إلى تغيير اللغة إلى:
   * الدّارجة؟
   * اللغة الفرنسية؟

3 هل يستعمل تلاميذك اللغة العربية الفصحى ل:
   * طرح الأسئلة؟
   * الإجابة على الأسئلة؟
   * مناقشة الأفكار؟

إذا كانت هناك أسباب أخرى يرجى التحديد، هل يستعملون الدّارجة ل:

* طرح الأسئلة؟
* الإجابة على الأسئلة؟
* مناقشة الأفكار؟

إذا كانت هناك أسباب أخرى يرجى التحديد.
هل يستعملون اللغة الفرنسية:

* طرح الأسئلة؟
* الإجابة على الأسئلة؟
* مناقشة الأفكار؟

إذا كانت هناك أسباب أخرى يرجى التّحديد.

4 في العادة، كم من مرة يستعمل تلاميذك الدّارة؟

أمّا دائمًا
أحيانا
أبدا

كم هي النسبة المئوীة لهذا الاستعمال؟

في العادة، كم من مرة يستعمل تلاميذك اللغة الفرنسية؟

أحيانا
أبدا
دائمًا

كم هي النسبة المئويّة لهذا الاستعمال؟

شكراً
Appendix B: Classroom Observation
### Classroom Observation:

**Level:** Second Year Secondary School  
**Time:**  
**Number of Pupils:**

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Frequency</th>
<th>Teachers’ Reaction</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of MSA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of AA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of French</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons</td>
<td>Frequency</td>
<td>Pupils’ Reaction</td>
<td>Examples</td>
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</tr>
<tr>
<td>Use of MSA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of AA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of French</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Use of MSA**

- Never
- Sometimes
- Always

**Use of AA**

**Use of French**