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# Computer-Mediated Discourse in Social Media: A Study of Social Support among Algerian Internet Users

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**Thesis Submitted to the Department of English in Fulfilment for the "Doctorate" Degree in Sociolinguistics**

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# *Statement of Originality*

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

Signed: Maliha Khadidja MEZIANE

Date: 27/05/2018

# *Dedication*

"Imagination is the beginning of creation. You imagine what you desire, you will what you imagine, and at last, you create what you will".

George Bernard Shaw

*This dissertation is dedicated to:*

*All the persons I love and cherish: My dear parents, husband, daughters, brothers and sister, family members, friends and colleagues.*

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# Abstract

In the last decade, access to the internet has proliferated in a way that people are getting connected not only from homes, but also on multiple other devices like mobile phones, video games, hand-held tablets…etc. The result is people getting more connected to each other especially through social networks. When logged in, the aim has switched from getting in touch with others and making friends to looking for social support. In brief, social support can be defined as empathy-seeking or looking for persons who will 'understand you'. This fits people sharing the same issues (anorexia, obesity, cancer, illness…etc), yet the novelty with the internet concerns also 'basic' people who join online communities looking for social support. This study aims to investigate the link between gender, social support (with its four categories Tangible, Belonging, Self-esteem and Appraisal) and the language (Arabic and French) used by Algerian facebook users in different topics: Funny shows/Entertainment, music, sport, news, education, politics and religion. The findings are discussed in the joint framework of sociolinguistics and Computer Mediated Communication (CMC) theories to shed the light on the behaviour of Algerian users in online environments. The results show a main effect of gender and a difference in the choice of social support categories depending on the language used French and/or Algerian Arabic.

## CHAPTER TWO :LANGUAGES IN CONTACT AND LANGUAGE PLANNING IN ALGERIA

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# List of Acronyms

AA:        Algerian Arabic

BBS:       Bulletin Board System.

CA:        Classical Arabic

CMC:       Computer-Mediated Communication.

CMD:       Computer-Mediated Discourse.

DA:        Dialectal Arabic

E-Mail:    Electronic Mail.

ESA:       Educated Spoken Arabic

H:         High Variety

IRC :      Internet Relay Chat

L:         Low Variety

L1:        First Language

L2:        Second Language

LP:        Language Planning

MGT:       Matched-guise Technique

MSA:       Modern Standard Arabic

OSS:       Online Social Support

SA:        Standard Arabic

SS:        Social Support

WWW:       World Wide Web

- **Phonetic symbols of Arabic Sounds**

**Consonants:**

| Arabic | Name | Symbol | Arabic | Name | Symbol |
|--------|------|--------|--------|------|--------|
| ء | hamzah'[ʔ]' | ʔ | ص | ṣād '[ṣ]' | ṣ/sˠ/sˤ * |
| ب | bāʔ '[b]' | b | ض | ḍād '[ḍ]' | ḍ/dˠ/dˤ * ** |
| ت | tāʔ '[t]' | t | ط | ṭāʔ '[ṭ]' | ṭ/tˠ/tˤ * |
| ث | θāʔ '[θ]' | θ | ظ | ḍāʔ '[ḍ]' | ḍ/ðˠ/ðˤ *** |
| ج | gīm '[g]' | g | ع | ʕayn '[ʕ]' | ʕ/ʕ* |
| ح | ħāʔ '[ħ]' | ħ/H* | غ | γayn '[γ]' | γ |
| خ | xāʔ '[x]' | x | ف | fāʔ '[f]' | f |
| د | dāl '[d]' | d | ق | Gāf '[q]' | q/G** |
| ذ | ðāl '[ð]' | ð | ك | kāf '[k]' | k |
| ر | rāʔ '[r]' | r | ل | lām '[l]' | l |
| ز | zay '[z]' | z | م | mīm '[m]' | m |
| س | sīn '[s]' | s | ن | nūn '[n]' | n |
| ش | šīn '[š]' | ʃ / š | ه | hāʔ '[h]' | h |

Additional Optional Symbols (to be used consistently):

| | | | |
|---|---|---|---|
| ء | ʼ | ع | ʻ / ͨ |
| ث | th | غ | gh |
| ج | j | ص | ṣ |
| ح | ḥ | ض | ḍ |
| خ | kh | ط | ṭ |
| ذ | dh | ظ | ẓ |
| ش | sh | | |

**Vowels:**

| | | | | | |
|---|---|---|---|---|---|
| َ | short front/back low | a | ا | Long front/back low | ā |
| ُ | short high back rounded | u | و | long high back rounded | ū |
| ِ | short high front unrounded | i | ي | long high front unrounded | ī |
| و | semi vowel | w | ي | semi vowel | y |
| وّ | doubled | uww | يّ | doubled | iyy |
| وْ | diphthong | aw | اوْ | diphthong | āw |
| يْ | diphthong | ay | ايْ | diphthong | āy |

Source: **Journal of Arabic Linguistics Tradition** (http://www.jalt.net/jIpa.aspx)


## • **Operational Definitions**


**Blog**

Shortened version of "**web log**" (marketing terms.org, 2009). Blogs are a personal journal or diary hosted online, kept in chronological order, and read by interested individuals (Baker & Moore, 2008). Web logs are generally asynchronous, that is time delayed. That is, when people write a post, at some point, it is posted for the community to read. The posting process is not immediate, unlike what happens in chat rooms.

## Bulletin Boards

Internet resources that allow people to communicate asynchronously are referred to as Bulletin Boards, or BBs (Lieberman & Goldstein, 2005). Like listservs, the discussions are not in real time; however, the posts may be made directly to the internet, rather than via email. Users are asked to register and may receive updates through email.

## Chat Rooms

Chat rooms are online discussions conducted over the internet in a synchronous manner. Usually, chat rooms include groups of people who type messages, very similar to a face to face discussion. Chat rooms are held with as few as two individuals or many more than that. Chat rooms differ from instant messaging, in that instant messaging usually involves two people, who have the option of inviting more people, once the discussion begins.

## Internet Support Groups

Groups that are of self-help, rather than therapeutic in nature are support groups (Kernsmith & Kersmith, 2008). Groups may be managed and moderated by one or more individuals, often people who share the experience, which is the purpose of the group. For example, in a support group for parents of children with autism will most likely have a child with autism. The groups are conducted through the use of the internet, and are often asynchronous (Kernsmith & Kernsmith, 2008). That is, the discussions are threaded and posts are made at the convenience of the user, rather than at the convenience of the group. Other terms include social networks or computer mediated support groups.

## Listservs

Lists of email addresses are used to send out notices and messages to registered users. Listservs may be used as the primary discussion tool, to supplement threaded discussions, or to make users aware of new posts to the discussion board.

# General Introduction

The following study is concerned with an investigation of computer mediated discourse and the attractiveness of internet users towards non face to face communication. The recent interest that people are having towards modern technologies is leading to a new way of using the language; while some express their emotions with graphical smileys called emoticons, others redefine the writing by using acronyms and abbreviations leading to neologisms. Linguists started to pay attention to electronic speech recently (Baron, 2008; Crystal & McLachlan, 2009; Danet & Herring, 2007) with the different changes resulting being lexical, grammatical or orthographic with prosodic features, vowel deletion and 're-adapted' connected speech (Borochovsky-Bar-Aba & Kedmi, 2010).

What adds complexity is when the community is multilingual using various dialects, the case of Algeria, for some will write exclusively in Modern Classical Arabic (MSA) or in Roman form (French, English…etc) while others will use their keyboard to start a sentence in Arabic, integrating a French word, using a dialectal script word which is sometimes written in Arabic and other times in Roman, in addition to a smiley and some punctuations to add effects or to focus on a meaning. This is by far only a basic example of the writing of Algerian internet users with no consistency from a person to another creating many cases where the message understood is completely different from the one originally intended. One wonders whether it is a form of writing or a written speech with orthographic inclusions and phonetic representations with numerical codes. Algerian speech being part of the Arabic one, the investigations are timidly taking place (Haggan, 2007).

One of the results is misunderstanding when face to face interaction is omitted.

This study was first intended to focus on verbal conflicts and message misunderstanding, but after a long term observation of three years, we have noticed

that miscommunication was only a small element unavoidable when interacting but the actual aim was social support.

Therefore, the following study will explore how social support is constructed and deconstructed in Algerian online communities for both Algerian Arabic and Algerian-French speaking community.

Based on the literature, different definitions have been associated with the concept of 'social support'(Herring, 1996) ,yet the term is getting more complex in studies related to 'online social support', but for the case of research, Online Social Support broadly means 'comforting' online (Ko, Wang, & Xu, 2013).

Hence, 'lurking' at the discussions of Algerian internet users would reveal a great deal about behaviour, personality, identity and/or power which goes with research on sociology, psychology, cognitive and social sciences. In this sense, I will investigate what type of social support is found depending on the topic of discussion (music, sport, religion…etc) in some popular/reactive facebook groups of Algerian net users.

In addition, there has been much investigation on the way that CMC impacts upon relationships. Findings diverge in accordance with the social and organisational context of use, as well as through varying conceptualisations of media properties and communication.

However, there is consistency in the findings that CMC is qualitatively different from face-to-face communication. This qualitative difference has been found to arise from the properties of the medium shaping: (a) the information; (b) the relationship; and (c) the environment. Research into the relational effect of CMC is examined in terms of social cues, socio-emotional expression, trust and conflict.

Sociolinguistic studies give importance to the social side, the relationship between language and society is not to be neglected in this dissertation since the next inquiry compares these resulting types of social support for both speech communities :

Algerian web users with a dominating Arabic use and Algerian web users with a dominating French use. The result will show if there is any discrepancy and /or disparity in Online Social support depending on the language used.

With the aim of enriching investigations on the Algerian web sphere, the main research questions of this dissertation are as follows:

> RQ1: When online, people would unconsciously seek comforting (social support) whatever the topic of the community they choose to enroll in (Music, Politics, Sport…Etc) .What kind of Social Support is sought for in every topic ?: appraisal support, belonging support, tangible support or/and self-esteem.

> RQ2: Is there any difference in the dominating types of Online Social Support for Algerian Arabic and French speaking communities?

> RQ3: Is there a relationship between online social support, language use, gender and age?

An interdisciplinary methodology combining structural and ethnographic observation will be used with a special attention to 'digital research'.

The researcher hypotheses are:

> H1: In joining different facebook groups, Algerians not only want to contribute in a given topic (music, sport, fun…etc) but also unconsciously seek SOCIAL SUPPORT online thanks to the anonymity and special environment that internet offers.

> H2: The dominating type of social support will vary according to the topic and/or age and gender.

➢ H3: No difference will be found in the types of social support for the Algerian web users with dominating Arabic use and the ones with dominating French use whatever the social factor; age and/or gender because they belong to the same society/culture.

The research questions make it obvious that the focal point draws on the link between social support, the different domains that Algerian net users find popular and the variety of language used in relation to gender and age. Results could contribute greatly to the study of the behaviour of Algerian people when interacting behind the screen. In an attempt to explain the reasons, both literature and methodology are of great use.

One example is doing a sociolinguistic study in a classic environment compared with an online one, for research in computer mediated communication has flourished with a body of empirical research that is contradictory and confusing, and which offers recommendations for further practice all different from each other. This study is no exception, because the context of CMC and social support is done in a different context and a different place namely: the Algerian online community on Social Media.

Due to its geographical position in the Mediterranean, Algeria had witnessed many intrusions to exploit its resources and therefore many colonisations as well. But the one which has left a bigger impact was France. As a result, Algeria is a multilingual country speaking Tamazight (Berber variety), Arabic and French. Meanwhile, the language question is very complex in the country for Modern Standard Arabic (MSA) is used in official speeches and a local variety Algerian Arabic is the mother tongue of the majority of the population, and used for daily life interactions, nearly in all the domains.

Therefore, the sociolinguistic situation of Algeria is characterized with diglossia, code-mixing, borrowing and code switching between the cited varieties.

With the advance of computer mediated communication, code-switching is becoming common in north African Arabic in general since comments on social networks and news feeds very often contain code-switching (Salia, 2011) and one may (indirectly) understand that this unintelligibility gap is becoming narrower.

Due to the intensive use of the internet and social networks in particular, a general enquiry is to know how people behave online. How do they socialise in the absence of any physical clue (eye contact, face expressions…etc)? What attitudes or value judgments do they hold about others? What makes some groups develop and have a load of followers? How do some people become 'close' and share solidarity whether for compassion or conflict management? How are feelings expressed? What is the place of 'self esteem'? What are the characteristics of the Algerian online user?  Because those characteristics are all related to social support, this study explores how 'social support' is established?

The sample population of this research consists of groups of Algerian facebook users expressing themselves in French in addition to another group expressing themselves in Algerian Arabic. Finally, the main research question of this paper is to investigate the relationship between gender and social support for internet users. No answer could be possible without the exploration of language use since it is a valid 'measurable' tool available in this study. This is framed in sociolinguistics (which combines the psych/sociological aspect dominating this study) in addition to the scientific study of language.

Traditional ways of collecting data, conducting interviews, making poll questions, matched guise technique, semantic differential questions, surveys, Likert scale ethnographic interview to name a few  techniques used in the sociolinguistic ground  may no more be effective, representative and reliable when it comes to online communication. As more data is to be found from web-based resources, methodology to treat it should be reviewed as suggested by many researches especially in the field of CMC (Androutsopoulos, 2015).  For this study, a 'blended

data' will be sought for. So, cyclical procedures of blended data collection can begin with observation, followed by screen data collection and preliminary analysis, then establishing contact with selected participants.(ibid).

As for the organisation of the research work, four chapters make up the construct of this thesis. Chapter one deals with the relevant literature and sets the explanatory frame of other chapters. It is, in turn, made up of three subsections, with the first one sketching a number of key-concepts about computer mediated communication in general and computer mediated discourse in particular. In this part, the history of CMC, impact on communication, the different modes, social cues which are absent or rather different from a face to face communication will be explored.

The second subsection is a comparison between social support and online social support. Since the context of online environment is different from the normal one, definitions are also different due to this new environment. The various categories of social support and online social support will also be studied in the light of different frameworks adapted by researchers in the domain. In addition, social factors will be reviewed as factors of change, inclusion (or exclusion) in the online environment. The third subsection is linguistically oriented, with new phenomena arising due to the 'virtual' context, like languaging, polylanguaging in relation to communication through social media. Therefore, the writing system used in social network and language choice in these web groups will also be of interest, especially in a multilingual society like Algeria.

The second chapter discusses languages in contact in Algeria. The three main languages, namely Arabic, Berber and French are discussed separately. The fact that the Algerian society is multilingual makes it important to detail language choice between different varieties available depending on the context. For this very reason, the roots of this linguistic phenomena will be sketched from North Africa and the Maghreb to the last reforms in language planning and political decisions on the officialisation of languages will be under review. As for the online environment, Algeria is no exception and an emerging form of E-Arabic is spotted

here and there with the influence of computers. This element will be given particular attention as well.

Chapter three is about the methodology followed in the conduct of the case in point. It therefore summarises the overall methodology approach in terms of the study design, sample population, research site, and types of data (qualitative and quantitative). It also sketches the techniques used for data elicitation.

The *blended method* will be applied because although the investigation of this thesis is in sociolinguistics, due to change of context (online environment), mixing the methods from other disciplines will be a better way for the validity and significance of the study.

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

CHAPTER ONE


# SOCIAL SUPPORT AND COMPUTER

# MEDIATED COMMUNICATION

**CHAPTER ONE:  Social Support and Computer Mediated Communication**

## 1.1.Introduction

In this chapter, we introduce the concept of social support and the different literature related to it. Then, different definitions will be acknowledged in relation to its integration in the wide world web. Indeed, Social Support and Online Social Support are becoming distinct concepts due to the different implications that research methodologies imply. In general, Online Social Support theories are investigated in the following part for validity considerations of the research that will follow.

## 1.2.Part I: Computer Mediated Discourse (CMD)

For any language, one of the aims of communication is to understand and be understood. This is not different when the verbal message is not aural-oral but written behind a screen creating a new atmosphere that some appreciate for the security and anonymity allowing them to overcome their reserve or introversion . This 'hybrid' like situation of communicating differently is referred to 'Computer Mediated Communication'  (Herring, 1996) in the literature diaspora and as 'Computer Mediated Discourse' (Herring, 2004) in linguistic studies, although sometimes both terms are used interchangeably or referred to as 'Electronic Discourse' (Meredith, Potter, lim, Ling, & Sudweeks, 2014).

Broadly speaking CMC is defined as human-computer interaction.(Thurlow, Lengel, & Tomic, 2004)with an interest in the field proliferating rapidly (Walther, 1996). It all started with emails as a mode of communicating  linking the social exchange with the context (Sproull & Kiesler, 1986); (Daft, Lengel, & Trevino, 1987);(Wright, Bell, Wright, & Bell, 2003). Other researches payed attention to the influence of CMC on cultural ties as Herring (Herring & International Pragmatics Conference, 1996) described these kinds of conversations as a new dimension of intercultural communication between different communities. Among other studies (Gibson, 2009), (Lea, 1992) some uncovered a socio-psychological facet  in relation to the outcomes produced in conversations. In teaching and education, the impact is

considerable (Althaus, 1997). One example is a study about supplementing face-to-face discussion with computer mediated communication which enhances academic performances of undergraduate students.(ibid)

In ethno-methodology, ways of treating online talk as research data constitutes a novel approach (Greiffenhagen, Christian and Watson, & Rod, 2005; Holtz, Peter and Appel, & Markus, 2011; Jowett, 2015). Apart from emails, online talk takes place through a range of modalities (Paulus, 2016) which have evolved over time from Usenet, chat discussions, forums, instant messenger to Facebook, Twitter and youtube.

Unlike Schegloff (2006) who states that "Computer chats should not be considered 'talk' at all" (p90), the majority of researchers in different disciplines regard computer chats and all ways of verbal writing through computer as a form of 'talk' applying methodologies that they would use to analyse normal talk with a predominance for Conversation Analysis (Ten Have, 2000)(Ten Have, 2007).The disciplines include linguistics (Crystal, 2006; Georgakopoulou, 2011; Vessey, 2015) , Sociolinguistics (Androutsopoulos, 2006; Thurlow, Lengel, & Tomic, 2011a) ,Pragmatics (Herring, 2013; Yus, 2011) and discourse analysis (Herring, 2004; Myers, 2010).

With a special attention to language studies, researchers have explored other features like gender(Herring, 2004), community, play and performance(Georgakopoulou, 2011)to name a few. This thesis goes with the view of Meredith & Potter (2013)who argued that "electronic discourse should be seen as electronic *interaction*"(p.374) and therefore the methodology applied  will be related to sociolinguistics and CMC.

### 1.2.1. Impact of CMD on communication

For (Clark, Herbert, Brennan, & Susan, 1991), the behavior of the persons change according to the medium of communication we use and the 'constraint' related to it. They argue that in whatever medium chosen to communicate with another person (computer, phone, …etc), there is always a place for 'constraint' embedded in the exchange since both the addresser and the addressee need to coordinate the content and the process for a successful conversation to take place.

In a recent literature review on the notion of arguing when talking, 'constraint' is not used but other terms which embody it are found, like 'conflict' (Grimshaw, 1990; Sheldon, Amy, 1992; Suleiman, 2004), 'misunderstanding'(J. House, Kasper, & Ross, 2003; McKinney & Aitchison, 2001, 2001; J. Milroy, 2001) or miscommunication (John J. Gumperz, 1982; Holmes & Stubbe, 2015; Maltz, Daniel, Borker, & Ruth, 1982) .

### 1.2.1.1.  'Constraint' as a Medium in Communication

Also widespread in the philosophy of language, 'Common ground' or 'grounding in communication' is a theory developed by Clark et al., (1991) which involves "mutual knowledge, mutual beliefs, and mutual assumptions" that is essential for communication between two people.On the one hand,communication can be altered by the constraint of the medium being used. On the other hand, it encompasses eight dimensions associated to constraints which are:

a) *Copresence*: the aptitude of the speakers to share the same environment
b) *Visibility*: when the members see what the others are doing
c) *Audibility*: when the members hear what the others are saying.
d) *Contemporality*: when members receive the message in real time without any delay that may cause some speakers to go forward when talking or others to slow down the conversation (resulting in misunderstanding)

e) *Simultaneity*: when the members are interacting with each other as a group for one member can talk and the other nods or makes a hand gesture to mean that they have understood the message, creating an effect of solidarity.

f) *Sequentiality*: when group members receive a message by sequence; i.e; a person answers on time then another comments on something else then another gets bck to the first idea, what is basically called 'turn taking'

g) *Reviewability*: when members can save then retrieve a message at their own pace (the case of emails)

h) *Revisability*: when a person decides to review his/her message, sometimes several times, before sending it.

One may notice that the eight dimensions cited above are all part of conversations while some are related to electronic conversations as an impact of CMD on communication.(Abbott, 2008)

On the table 1 below, the constraints are presented along the mediums being used.

| Constraint | Medium used |
|---|---|
| Copresence | Face-to-face, |
| Visibility | Face-to-face, video conferencing, |
| Audibility | Face-to-face, telephone, video conferencing, |
| Contemporality | Face-to-face, telephone, video conferencing, |
| Simultaneity | Face-to-face, telephone, video conferencing, |
| Sequentiality | Face-to-face, telephone, video conferencing, |
| Reviewability | Email, online messages |
| revisability | Email, online messages |

**Table 1: constraints and their mediums according to Clarke and Brennan 1991**

### 1.2.1.2.    The Place of Context in Language Studies

In his seminal paper of 1947, Malinowski (in Wolf, 1989)was the first to coin the term 'context of situation' where linguists and and anthropologists have widely accepted that meaning depends on different factors beyond linguistic structures. Previous concepts of context had defined it as "the text directly preceding and directly following the particular bit of text (sentences, phrase,word) an analyst was interested in."(Levine & Scollon, 2004). On the other hand, Malinowsky (p.306) insisted that the notion of context has to "burst the bonds of mere linguistics and be carried over to the analysis of the general conditions under which a language is spoken". In this definition, social scientists, anthropologists, linguists and language philologists have relied on for their research, since nowadays, it is on a thin line of contemporary studies based on the relationship between language, culture, social organisation as well as the study of how language is structured(Duranti & Goodwin, 1992).

On the whole, although linguists agree on the fact that context should always be taken into account, linguists disagree on the right definition of context and how it should be analysed. For students on languages, only the aspects of contexts which are invoked in a text or interaction itself should be considered (Schegloff, 2006) and those who claim that, in order to be meaningful, the notion of context must encompass broader social structures as the importance of power and domination through social institutions and ideologies (Fairclough, 1992; Van Dijk & Teun A, 1997).

Meanwhile, the most regular approach to context is by dividing it into component parts. One may cite Firth (Firth, 1957) who segmented it into three categories as follows:

- The relevant features of participants, persons, personalities
- The relevant objects in situation
- The effect of the verbal action.

Dell Hymes(D. Hymes, 1985; D. H. Hymes, 1986) relied on Firth's segmentation and suggested a division of context in eight categories in his book *ethnography of speaking,* as shown below:

SPEAKING CONTEXT

| SETTING AND SCENE | PARTICIPANTS | ENDS | ACT SEQUENCE | KEY | INSTRUMEN-TALITIES | NORMS | GENRE |
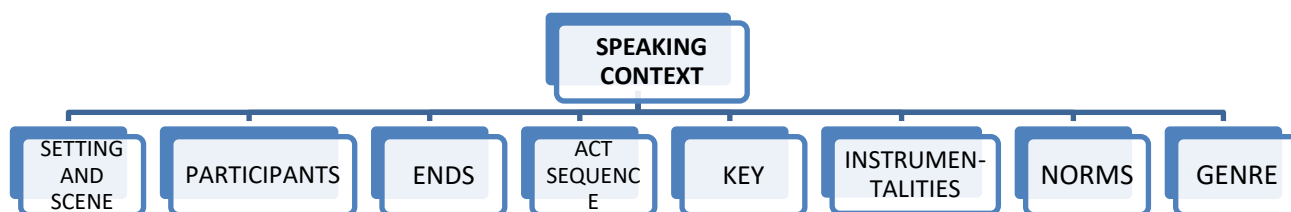
**Figure 1 Segments of context according to Hymes (1974,1976)**

Later, Halliday (M. A. K. Halliday & Hasan, 1997)(Morley, 1986)stated that context is a resource for meaning, making and understanding. He applied a different three model division with yet another concept different from the latter as follows:

| **FIELD** | **TENOR** | **MODE** |
|---|---|---|
| The nature of social action taking place | The roles and relationships of participants | The symbolic or rethorical channel and the role which language plays in the situation |

**Figure 2'Context' as divided by Hallyday and Hasan, (1985:12)**

### 1.2.1.2.1.    'Context' in Computer Mediated Discourse

From the point of view of Computer Mediated Communication, these models and divisions of context are problematic since they assume that communication takes place in the form of social interactions that occur in specific physical spaces and involve participants with defined roles and relationships, while in CMC, "new

temporal, spatial and social flexibilities introduced by technologically mediated contexts" (Kendall, 1999).

So far, the social presence is what makes the context important is CMC studies as a means of negotiating the communicative intentions and purposes of the people. In other words, the context is slightly different in mediated communication by technology from face to face interaction in the ways these media allow us to be *present* and be aware of other peoples' presence (Levine & Scollon, 2004).

### 1.2.2. Computer Mediated Discourse Modes

As humans, we are attracted by each other in order to socialise and establish a social closeness of security. This is mainly achieved through communication; and with the advance of technology, this communication still continues to take place but 'differently 'as Maslow's theory of human needs, formulated in the 1950s which *"illustrates that social interaction is essential to satisfying human needs at several levels, in particular needs for belonging, love, and esteem, although at all other levels the formation of social networks may facilitate the satisfaction of the various needs"*(IJsselsteijn, Wijnand and van Baren, Joy and van Lanen, Froukje, 2003:924).

Thus, many forms of communication have emerged through computer use, one may cite instant messaging, chat conversations, short message systems (SMS), emails, videoconferencing, virtual reality…etc. In this section, definitions of the main concepts will be accentuated in the light of CMC studies.

### 1.2.2.1. Synchronous VS Asynchronous Communication

Synchronous communication occurs when both the sender and the receiver get in touch *in real time*. The sender could address one person or a group waiting for answers at the time of typing. This is the case of chat and instant messages. This mode of communication offers directness and effectiveness.

Asynchronous communication however does not require an answer.The sender may have time to read, revise, think about an answer, write it, edit it and choose a time to send it at his/her own pace (as in emails)(Posner, 1993).

These methods gave rise to synchronous and asynchronous learning for example where students sign in an educative platform and connect with a distant teacher who tutors about a fixed topic known in advance and the learners could send and receive message instantly with the possibility to review their lecture if recorded and archived. This is only one of the possibilities among others that people are benefiting from mediated communication.(Thurlow, Lengel, & Tomic, 2011b)

At the linguistic level, many researchers are exploring this field in comparison to linguistic features of face-to-face communication. One example is the study of Garcia & Baker Jacobs (1999) about turn taking where they analysed four college students answers at the moment of chatting like decisions to write, post, edit or erase a message before sending it. They discovered that the turn-taking system in Quasi Synschronous-CMC is substantially different from the turn-taking system of oral conversation (Sacks, Schegloff, & Jefferson, 1974).

### 1.2.2.2.   Instant messaging and Chat

With the support of software, a person may send and receive a message instantly as defined in the dictionary 'an electronic message sent in real time via the internet and therefore immediately available for display on the recipient's screen'.

With the mobility that cellular phones connected to the internet and electronic hand-held devices, this mode of communicating is very popular. Generally, one may type a message and add icons, stickers and emoticons with different coulours and scripts. Also, it "*offers two main functions unique in CMC: the ability to know who is connected to the shared space between or among friends, and the ability to conduct a text-based conversation in real time*" (Hu, Yifeng and Wood, Jacqueline Fowler and Smith, Vivian and Westbrook, & Nalova, 2004).

As for the *chat*, this is used to mean conversing between friends in a familiar or informal manner, but nowadays, people would think about Internet Relay Chat as series of texts exchanges by using images, voice, video or a all these tools together. According to Crystal (Crystal, 2006) chat groups are "continuous discussions on a particular topic, organized in 'rooms' at particular Internet sites, in which computer users interested in the topic can participate." Chatting allows for anonymity sometimes with a freedom to choose and switch between pseudonyms which may enable certain users to feel more confident behind the screen and let aside their shyness. One has also to mention that this medium may allow people to be weak and fall in traps of their victims as in distant love affairs with strangers or children kidnapping.

On the whole, chat is a quick and efficient way to communicate although this fast way of typing may result in a 'language disruption' since the users are overwhelmed by the numerous messages to be replied to, here and there.

### 1.2.2.3.    Social Networks

If you hear words like Facebook, Flickr, Friendster, Google, Instagram, Linkedin, Myspace, Pinterest or Twitter, needless to say, this is about a social network although the list is not exhaustive. According to Boyd's study,  (Boyd & Ellison, 2007) a definition of social network sites is "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site."

One of the top social networks which is still evolving and adding functionalities day after day is Facebook. Founded in 2004 by Mark Zuckerberg along with his fellow Harvard College students, it includes several features like instant messaging, adding friends, joining groups, commenting, sharing and liking others' posts. Besides, it allows the users to post and receive photos, music, videos and play games, in both modes synchronous and asynchronous.

As written by Pérez-Sabater, C. (2013). "Battner Fiori (2009) put forward that it is a tool that goes beyond synchronous and asynchronous technologies; as part of Web 2.0 principles, it is a participatory platform where users can add information or modify the information already online, for example, a user can tag the pictures uploaded by adding the names of the people or a description".

### 1.2.2.4.    Email

Ray Tomlinson ( 2009) is credited for inventing email in 1972. He picked the @ symbol from the computer keyboard to denote sending messages from one computer to another. So then, for anyone using Internet standards, it was simply a matter of nominating name-of-the-user@name-of-the-computer. [1]

By definition, an email is an electronic message sent from one computer to another through internet (world wide web). It has many functions as to send messages to one person or many at the same time, attaching files in different formats from text to pictures and videos. It has an option to save the drafts, store documents on 'a cloud system' to be retrieved on a different date. With an email, there is no limit for writing and this represents an asynchronous way of communicating. Very popular in the workplace, it allows the users to be in touch and exchange reports at their own pace.  It is defined by Herring (1996)  as *" A text-based asynchronous, and involves message-by-message transmission. A distinctive feature of the e-mail message that dates back to the early 1970s is its header, containing "to," "from," and subject lines as well as routing information."* (p.114)

### 1.3.Social Cues

Fundamental issues need to be considered or at least mentioned when dealing with the research in computer mediated communication as it is somehow different from face-to-face interaction. One of them is the presence (or not) of social *cues*[2] ;i.e.; as soon as a person is communicating with another person behind the screen, he or she unintentionally looks for social cues. For instance, non-verbal behaviours,

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[1]Retrieved from http://www.nethistory.info/History%20of%20the%20Internet/email.html
[2]The term 'social cues' has been used in this research as coined by Billings, M. in his thesis (2008,University of Bath)

face wince, head nodding, sigh, moan, groan, or any detail which may give clues about the status of the person, being its clothes or accent (or even skin coulour, depending on the country and the society one belongs to).

Broadly, we categorise into social groups and 'judge' the other person we chat with (as authoritative, cool, aggressive, friendly, funny, happy, sad, normal, bizarre…etc) through interpersonal attitudes (informally known as value judgments) (Cafaro, Angelo and Vilhj, H.H. Vilhjálmsson, T. Bickmore, D. Heylen, & C. Pelachaud, 2012).

Social cues have been defined as content that gives information about a relationship(Walther, 1996) or discrete and easily discerned information (Billings, Angelini, & Eastman, 2008; Spears, 1992) while (Tanis & Postmes, 2003) argue that there is no exact definition yet about social cues as they have not been sufficiently investigated.

According to Billings (2008:27) research that examines interaction at the level of social cues, has found that:

> "CMC restricts the transfer of cues, leading to: less warmth (Short et al. 1976); reduced ability to deal with uncertainty and ambiguity (Daft and Lengel 1986); an increase in uninhibited behaviour (Sproull and Kiesler 1986); increased  intensity of attribution (Hancock and Dunham 2001); and more task-focused comments (Bordia 1997)".

That is to say, those changes are responsible of the alteration of the relationship causing misunderstanding, conflict, mistrust or any other social issue (as explored later in the practical part ).

### 1.3.1. Socio-emotional Expressions

Socio-emotional expressions induce the aptitude of persons to share their feelings and at the same time understand the feelings and emotions of others through specific expressions. They are clues which help the interlocutors to fully understand the emotional situation as some basic facial emotions are universally

recognised (Izard, 1971). In this sense, findings show mediated relationships to be: less socio-emotionally oriented; less inhibited(Joinson, 2001) ; and less valued(Cummings, Butler, & Kraut, 2002) .

As for mediated communication is concerned, it has been found to: encourage self-disclosure (Joinson, 2001); allow greater control over self-presentation (Bargh, McKenna, & Fitzsimons, 2002; Walther, Loh, & Granka, 2005); and enhance or expand relationship networks(Spitzberg, 2006) .

Gibbs (2000) found that when friends were using ironic expressions between them, they mainly did it with a 'special voice tone' to underscore the ironic intention (two thirds of the cases). Interestingly, emoticons like :-) or ^^ have been found on mails to paraphrase non verbal emotional signals. (Scholl, 2013).

This constitutes a major difference in comparison to face-to-face interaction since some web users may avoid some topics, or fear others because of the absence or misinterpreting of those socio-emotional expressions through the net.

### 1.3.2. Conflict, Disagreement and Impoliteness

When there is a controversy or opposition of interests and principles the result is often a conflictious situation. This often signals disappointment or annoyance in spite of being a natural act in any relationship. Relational difficulties could be prompted as the result of mis-expectations. In the absence of a social context (as mentioned previously in 1.1.3) and the interpreting of social cues in mediated communication, conflicts arise as well since the 'norms' of discussing online are 'violated'.

Studies of conflict in relation to CMC have proliferated in the last 15 years by (Baym, 1996; Danet & Herring, 2007; Georgakopoulou, 2001; Sage L. Graham & Hardaker, 2017; Sage Lambert Graham, 2007; Herring, 1996; Tanskanen & Karhukorpi, 2008)while Billings (2008) has found that computer mediated communication "reduces interpersonal warmth, increases uninhibited behaviour, and results in more extreme attributions (Hancock & Dunham, 2001)". Other

studies explored disagreements and impoliteness through the internet like Graham, S.L (Sage L. Graham & Hardaker, 2017) and Spencer-Oatey (2005); Spencer-Oatey (2002) who  propose that "(im)politeness is based on behavioral conventions, norms and protocols'' (Spencer-Oatey, 2005:99).

### 1.4.Speech style Behaviours

This section is about the literature related to the 'embedded rules' found in any basic conversation in general and not exclusively associated with computer mediated communication, although the majority of the theories would apply.

### 1.4.1.  A Sociolinguistic View

The primary theoretical foundation for conversational behaviour used in the present research comes from the discipline of sociolinguistics. According to Fasold (J. Milroy, 1991):

> when people use language, they do more than just try to get another person to understand (their) thoughts and feelings. At the same time, both people are using language in subtle ways to define their relationship to each other, to identify themselves as part of a social group"
>
> Fasold (1990:1)

Thus, a sociolinguistic view focuses on two main features: (1) the patterns of language used within identifiable social groups or social relationships; and, (2) what those specific communication behaviours mean to those who use them (how communication signals an aspect of one's self or identity as a member of a particular social group). In other words, investigating interpersonal communication based on the basic elements or patterns of a conversation (i.e., the structure of conversation) allows sociolinguists to discover conversational behaviours that communicate meaning within social relationships. According to Gumperz and

Tannen(John J. Gumperz & Tannen, 1979) individual speakers tend to use specific patterns of structural elements, and these characteristic patterns make up a person's conversational 'strategy' or 'style'. That is, individuals use particular ways of talking (style) during their conversations, and these conversational styles consist of habitual patterns for speech rhythm, pausing, tone, and turn taking. Although a person's style may vary to some extent depending on the demands of the particular context, Gumperz and Tannen (1979) claim that we should be able to identify the characteristic conversational style that a speaker uses in casual or friendly conversation.

According to Tannen (Tannen, 1983, 1984) High considerateness speakers operate from the rule of 'do not impose', thus, they avoid simultaneous speech. Therefore, the intention to be considerate or involved gives rise to each individual's style.  Tannen (1983, 1984, 1989) states that the most successful conversations occur when two speakers use similar conversational styles because both speakers share similar habits with regard to turn-taking pace and simultaneous speech. Moreover, social psychologists show that individuals report that they feel more enjoyment when conversing with people who use similar temporal styles as compared to those with people who use different styles .Tannen (Tannen, 1989; Welkowitz & Feldstein, 1969) explains what happens when people use different styles.She suggests that the speaker who uses a faster turn-taking pace and more simultaneous speech will interrupt his or her partner more frequently; thus, high involvement speakers are more likely to interrupt high considerateness speakers.

Interruptions occur when high considerateness speakers pause within their turn, and high involvement speakers perceive this silence as a lack of rapport, and thus begin speaking. However, the high considerateness speaker perceives the high involvement speaker as imposing his speaking turn; and thus; stops talking.

Therefore, an interruption occurs when a speaker stops talking as the result of the simultaneous speech initiated by another speaker. While high rates of one-sided interruptions indicate a 'clash' (or difference) in conversational styles, high rates of mutual interruptions and simultaneous speech indicate that both speakers are using

a similar high involvement style (Beaumont, 1995, 2000) .Conversational characteristics related to the use of a high involvement style (such as fast rates of turn-taking, frequent interruptions, and simultaneous speech) have been observed in conversations between women who are friends (Beaumont, 1995, 2000; Coates & Pichler, 2011; Madoc-Jones & Coates, 1996).Tannen(Tannen, 1994) speculates that friendship is fostered when two individuals use the same conversational style. She has shown that when friends talk about a shared experience, their conversational styles actually become more similar (their styles converge).

Nevertheless, Tannen's (1983, 1984) high involvement and high considerateness conversational styles can be measured empirically. Beaumont (1995, 2000) transcribed word for word on a turn-by-turn basis, audio taped conversations between mothers and their daughters, adolescent girls who were friends, preadolescent girls who were friends and women who were friends.

A coding scheme that measured overlaps between turns, simultaneous speech and successful interruptions was used to identify and compare speakers' conversational styles (as described by Tannen). Overlaps between turns occurred when the second speaker cut off only one word (or less) of the first speaker's utterance, or when the two speakers began speaking at the same time after a pause.

Simultaneous speech occurred when the second speaker began talking before the first speaker finished her utterance and both speakers continued talking and completed their utterances. Successful interruptions occurred when the second speaker cut off the first speaker by more than the last word of the utterance before the first speaker finished a complete utterance. Beaumont (1995, 2000) found that overlaps between turns, simultaneous speech and successful interruptions were correlated. That is, some speakers frequent rates across all the three speech behaviours –i.e., used a high involvement style), whereas others used less frequent rates (i.e., a high considerateness style). Thus, there is empirical evidence to support the construct validity of the concept of "conversational style" as conceptualised by Tannen (1983, 1984).

Furthermore, the use of the high involvement style appears to be common among girls and women and is related to both age and social roles (Beaumont, 1995, 2000). For example, adolescent girls tend to use a high involvement style with both their mothers and their close friends (Beaumont, 1995; Beaumont & Cheyne, 1998).

Similarly, mothers used a high involvement conversational style when they talked with their adult female friends; but, they used a high considerateness style when they talk with their daughters (even though both adolescent daughters and the mothers' friends used a similar high involvement style) (Beaumont, 2000). Beaumont's findings confirm those found by other researchers who showed that women tend to use a fast-paced, overlapping conversational style (e.g., Coates, 1989). Beaumont (2000) suggests that high involvement style is a style that women use with their friends; but, women switch to a higher considerateness style when talking with their children (i.e., a child directed conversational style). Therefore, based on Tannen's (1983) theory and Beaumont's (1995, 2000) empirical research, it is assumed that conversational style is related to, and changes, as a result of social context.

### 1.4.2. A Socio-psychological View

The preceding review focused on studies related to conversational behaviour as viewed by sociolinguists. In the discipline of psychology, it is social psychologists who have studied interpersonal communication. Social psychologists, however, tend to investigate individual differences in speakers' speech characteristics rather than conversation *per se*. Social psychologists investigate the qualities of individuals' styles of speech behaviours in varying contexts (e.g., in formal or structured settings, with strangers), rather than focusing on the dynamics of conversation itself. The most comprehensive theoretical perspective that has emerged from this approach is "communication accommodation theory", which was initially developed by Giles *et.al* (1991) approximately 40 years ago (it was originally called "speech accommodation theory", but soon was renamed as communication accommodation theory, or CAT)

The main finding of CAT is that certain intrapersonal social-cognitive factors lead interactants to adjust their speech behaviours to either converge or diverge and become dissimilar with each other. Individuals converge their speech styles when they want to facilitate social interaction; however; if they want to disassociate from their partners, they adjust their speech behaviours such that their speech styles end up diverging (Street, 1984). When individuals' speech styles converge, speakers adapt to each other's speech rates, pauses, and speech length; however, when individuals' speech styles diverge, they behave in ways that accentuate speech differences. Speakers who use similar speech styles also perceive each other as more likeable, trustworthy, warm, and friendly than those who use different styles (J. Fishman, Giles, & Clair, 1981). One of the primary factors that appears to predict speech convergence is whether the interactants perceive each other as having similar personalities, and speakers who perceive that they have dissimilar personalities are more likely to use different speech styles (Welkowitz & Feldstein, 1969). Therefore, the findings of social psychologists and sociolinguists on factors that influence speech or conversational behaviours appear to be similar, and provide parallel findings which suggest that similarities in personalities and feelings of intimacy or liking may be related to similarities in friends' conversational styles.

### 1.4.3. Conversational Behaviour and Topic Choice

Tannen (Tannen, 1994) suggests that the conversational topic may influence conversational style when she observed that friends used a higher involvement conversational style when they discussed past experiences that they shared together.

Mc Lachlan's(1991) findings also indicate that the discussion topic is related to conversational behaviour. He found that during a debate there were no gender differences in the amount of overlaps and back-channels used by men and women. It was found, however, that while women used fewer overlaps and back-channels during disagreements, as the discussion moved toward agreement, women used more overlaps and back-channels. The findings suggest that shifts in women's turn-taking pace may signal a shift in rapport between the conversational partners. Based on Mc Lachlan's and Tannen's findings, it was reasoned that conversational topics

that emphasise shared similiarities between conversational partners (e.g., past shared experiences) generate rapport between conversational partners, which would lead to higher use of high involvement conversational style among women than when women discuss disagreements (e.g., differences of opinions) with their conversational partners.

There is evidence to suggest that specific speech behaviours are associated with personality characteristics. For example, vocal attributes (i.e., loudness, voice contrast) and talkativeness are correlated with perceptions of emotional stability (Campbell & Rushton, 1978; Scherer, 1979). Furthermore, speech variables such as accelerations of temporal pacing of speech, pitch, and intonation correlate with scores on measures of extraversion (Scherer, 1979). Moreover, extraverts in terms of sociability are more talkative than introverts, and this is particularly true for women (Campbell & Rushton, 1978; Smolensky, Carmody, & Halcomb, 1990). Therefore, it seems reasonable to assume that personality characteristics (like extraversion) could be associated with characteristics related to the high involvement conversational style as conceptualised by Tannen and Beaumont (Beaumont, 2000; Tannen, 1984) (i.e., higher rates of overlaps between turns, simultaneous speech and successful interruptions).

### 1.4.4. Turn-taking and Conversational Interruptions

Conversational interruptions or as first defined by Sacks et al., (1974) as 'overlap' between speakers are found in a dialog when there is a violation in the "turn" of a speaker. Social conventions hold that during a speaker's turn-at-talk, each participant in a conversation should speak only when others are not speaking, or if overlap is to take place, that overlap should occur quite near the anticipated end of the current speaker's turn, when overlap is more expected and common (Sacks *et al*,1974). Being a member of the Algerian speech community, this social convention is true and applies to my country.

Later work by researchers interested in the relations between men and women in society (West & Zimmerman, 1983) used *Conversational Interruptions*

as measures of attempted dominance in cross-gender interactions. They viewed interruptions as a symbol of domination in human interaction, and used interruption tendencies as a dependent measure in cross-gender studies to further their socio-political view that men express their power over women through subtle, implicit means. In their research they attempted to define "interruption" in observable empirical terms:

> In contrast to overlaps, interruptions do not appear to have a systemic basis in the provisions of the turn-taking model. An interruption involves a "deeper intrusion into the internal structure of a speaker's utterance" than an overlap, and penetrates well within the syntactic boundaries of a currentspeaker's utterance.
>
> (West & Zimmerman, 1977)

Interruptions, therefore, potentially take the floor away from a current speaker (the speaker can usually raise his own speech amplitude and disallow disruption) and signify a place where the current speaker could surrender the floor.

Confirmatory "uh-huh"-type overlaps, therefore, and other such non-disruptive overlaps, are not interruptions. West and Zimmerman regard disruption as the successful ability of an interruption to force the speaker to address the interruption in a cooperative manner.

Kohonen(2004) performed an analysis that synthesised operational definitions (Drummond, 1989; Lerner, 1989; West & Zimmerman, 1983). After excluding many "interruptions" that she found to fit into a set of predefined exclusionary principles, she found that actual interruptions (defined solely in terms of what they were not) constituted less than 1% of cases of speech overlap.

However, Kohonen's definition is somewhat restrictive and fails to provide an actual description of an interruption, according to the critics.Dissatisfied with the tendency of researchers like West & Zimmerman(1977) to define interruptions purely in negative, dysfunctional terms, (Kennedy & Camden, 1983) investigated the various functions of interruptions in group-work settings.

Analyses of videotaped interruptions showed that up to half of all interruptions served a positive purpose: to strengthen the message of the speaker who is interrupted, whether through supporting, clarifying, or repeating the message. This finding motivates a categorical division between *cooperative* and *competitive* interruptions , a distinction that Yang (2001) recently upheld.

Although Yang (2001) partially defines the two types of interruptions according to subjective concepts related to the mindset of the interrupter, including emotions and underlying intentions (a task which is not very easy to measure), a great contribution of his work is his finding that cooperative interruptions generally are associated with low-pitch and low-amplitude prosodic contours, but competitive interruptions are associated with high-pitch and high-amplitude prosodic contours.

As a conclusion, conversational Interruptions have been defined and categorised on several levels. In order to be an *interruption,* an utterance must at least overlap with another speaker's utterance. From there, the categorisation becomes difficult. As Kahonen (2004) demonstrated, it is possible to consider a number of points about defining interruptions as for cooperative vs. competitive ones. But as shown in the titles, interruption is also defined according to the culture the speakers belong to.

## 1.5.Part II: Social Support and Online Social Support

This part comprises a general view about social support and attempts to provide new definitions related to the concept of online social support.

### 1.5.1. Introducing Social Support

Many centuries ago, the notion of 'Social Support' had been presented by Darwin (Darwin, 1981) but not coined as such. He concluded that 'man is a social animal' in the way that people live better and in better conditions if they are in groups and having social ties like family, relatives and friends. In his theory, he advanced that thanks to social support, groups are protected from predators and this enables the continuation of the species(Araujo, Thuiller, Williams, & Reginster, 2005).

In his work about 'the Theory of Evolution', he also discussed about subjective matters as emotions, love, empathy, sympathy, satisfaction and pleasure and their important role and influence on a person by stating that "Those communities which included the greatest number of the most sympathetic members, would flourish best, and rear the greatest number of offspring"   (1981:309).

Later on, many scholars looked at the effects and benefits of such feelings on the personality although they had not yet used the term 'social support'.

One may cite the work of Durkheim (1952) on suicide; he concluded that "the more strongly a group is constituted, the greater it protects against suicide" (Williams, 2005). He asserted that the more people share in common, the more socially integrated they become.

Also, Simmel (1917) noted that in small groups "the contribution of each to the whole and the group's reward are visible at close range; comparison and compensation are easy "(1917:88).Among other studies, he reported that there is a negative psychological impact on people being in an urban life in comparison to a rural one.

In the following chapter, different definitions related to Social Support will be highlighted, although there is still no one agreed on its definition like the one reported by Hupcey (1998).

Social Support is a multi-faceted concept that had been difficult to conceptualise, define and measure. Although this concept has been extensively studied, there is little agreement among theoreticians and researchers as to its theoretical and operational definition.As a result, the concept remains blurry and almost anything that infers a social interaction may be considered social support since "Social support researchers have consistently ignored the complexity of the concept and have measured the variable in a simplistic manner." (Hupcey, 1998:1232)

### 1.5.2.  Definitions of Social Support

Although there is no clearly distinct definition, many researchers suggested different definitions according to their specialisations. In the current study one that fits best is "the individual's perception that one is cared for and loved, esteemed, and a member of a network of mutual obligations" (Cobb, 1976). It goes with the idea that social support is the exchange of assistance and help between individuals through social relationships, promoting a feeling of security and 'being cared for'.

Inspired by the work of Willams, P ( 2005) who classified the meaning onto thirty one definitions, I will set the different definitions into decades from the 70's until now on in order to illustrate the change and evolution of the concept especially with the rise of technology .

#### 1.5.2.1.   Social Support as defined in the 70's

In 1954, Barnes (1954) was the first to depict patterns of social relationships that were not explained by families or work groups. All the researchers who followed, draw attention to this strong link in detail as well as the role and impact whether on heath, well-being, psychology or stress.

The era of the 70's is characterised by different definitions of social support related to Health.

Caplan (1974) defines social support as :

> " Both enduring and short term supports are likely to consist of three
> elements: the significant others help the individual mobilize his
> psychological resources and master his motional burdens :they share his
> tasks; and they provide him with extra supplies of money, materials,
> tools, skills and cognitive guidance to improve his handling of his
> situation" (p.6).

One may infer that this definition sheds lights on the importance of helping the others.

Along with Cassel (Cassel, 1974; Cobb, 1976), Cobb (1976) states that "Social support is defined as information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligation" (p300).This definition exposes the fact , as a health concern, persons suffering may 'feel better' when they know that they are cared for and loved.

Gottlieb (1978) writes about the role of emotionally sustaining behaviours, problem solving, the indirect personal influence as well as the environmental action that a helping behavior may have on others (he took the case of single mothers).

Still related to health, Lin et al (1979) made an investigation on social support related to Chinese-American population where the role of social ties has been stressed by saying "social support may be defined as support accessible to an individual through social ties to other individuals, groups and the larger community" (p.109).

### 1.5.2.2.   Social Support as Defined in the 80's

The era of the 80's is characterised by more sophisticated definitions of social support related to well-being and psychology.

Kahn and Antonucci (1980) as well as Hirsch et.al (1992) talk about the cognitive guidance, emotional support and assistance besides positive effects of

interacting with others while " Five categories of possible support include (a) Cognitive Guidance, defined as the provision of information or advice, or an experiment of something troubling; (b) Social Reinforcement, defined as the provision of either praise or criticism regarding specific actions; (c) Tangible assistance, such as helping (or declining the help ) with chores or child-car; (d) Socialising, such as going to the movies or dinner with others; and (e) Emotional Support, defined functionally as an interaction which made one feel better or worse when one had already been feeling upset or under pressure (Kahn & Antonucci :162).

One researcher who is largely cited in this domain is House (1981) who made an inductive research where emotional concern, instrumental aid and information appraisal are integrated to make the definition more comprehensive than before. Thus, he generalised the role of social support as an 'interpersonal transaction' for everyone whether scientific expert or layperson, involving one or more of the following: "(1) emotional concern (liking, love, empathy), (2) instrumental aid (Goods or services), (3) information (about the environment), or (4) appraisal (informational relevant to self evaluation." (p.39).

Other researchers relied on the upper definition and used it in clinical research to relieve patients from stressful life events or psychological and physical health, like (Schaefer, Coyne, & Lazarus, 1981) and (Pilisuk, 1982), (Barrera & Ainlay, 1983), (Procidano & Heller, 1983) , (Leavy, 1983) or (Shumaker & Brownell, 1984) who stated that it is "an exchange of resources between two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient." .Although this definition may seem minimalist, it actually gives insights for health assistants (including physicians) about the exchange, social behaviour and reciprocity between persons.

Just as a remedy, social support continues to draw attention of researchers during this time among them Cohen, Sheldon, & Syme(1985); Jacobson (1986); MacElveen-Hoehn & Eyres (1984), Nan Lin, Dean, & Ensel (1986) who linked it to depression and Jacobson (1986).

Heller et.al (1986) linked the concept to 'self esteem' and how a person may be relieved if he/she feels important or praised by others  like in " A social activity is said to involve social support if it is perceived by the recipient of that activity as esteem enhancing or if it involves the provision of stress-related interpersonal aid (emotional support, cognitive restructuring , or instrumental aid)" (p.467)

In the work of Peggy A. Thoits(1986), it is reported that support offered by others mirrors the efforts made by an individual to cope with a difficult situation.

Albrecht & Adelman(1987) introduce the role of non verbal communication by stating that "Verbal and non verbal communication between recipients and providers that reduces uncertainty about the situation, the self, the other, or the relationship and functions to enhance a perception of personal control in one's life experience. (Retrieved from Stewart, 1993).

### 1.5.2.3.    Social Support as Defined in the 90's

The era of the 90's is characterised by definitions of social support related to psycho-social and physical factors like stress influencing the persons.

Hilbert (1990) and Dunkel-Schetter & Skokan (1990) investigated unsolicited support from family and friends, intended support and positive interaction.

Vaux (1990) was the first to associate the concept with social networks. In this sense, he says :

> "Social support is best viewed as a complex process unfolding in an ecological context. This process involves transactions between people and their social networks, including the active development and maintenance of social network resources, the management of support incidents to elicit appropriate social behavior from the network and the synthesis of information to yield support appraisals" (p.508).

Cutrona and Russels (1990) and Sarason et.al (1992) address interactions between personality, relationship and situation.

Later, Hupcey (1998) and Coffman & Ray (1999) elicited the notions of being there, caring, respecting, sharing, believing or doing. Hupcey (1998) states that: "Social support may exist whether or not the recipient perceives it, as long as it has a positive outcome" (p.313).Hence, he defined it as " a well intentioned action that is given willingly to a person with whom there is a personal relationship and that produces an immediate or delayed positive response in the recipient" (ibid).

### 1.5.2.4.    Social Support as Defined in the Twenty First Century

By reading all the above definitions, one may have a general view to understand the concept of social support. Therefore, it is needless to get into details in this section for a definition of social support in 2000 because this is the core of the following research and there will be a special section dedicated to it. What one needs to know is that the definition has evolved so much to include social networks and computer mediated communication.

Among the few who did not link the concept to CMD are Burleson, Brant, & MacGeorge (2002) who defined social support as " verbal and nonverbal behavior produced with the intention of providing assistance to others perceived as needing that aid " (p. 374).

Also, Shaughnessy, (2004) talked about Self-efficacy and confidence levels as dependents upon social support from parents, students, and the institution. Besides, Gomez (2009) stated that  receiving social support was an effective socialisation way to help new members assimilate into an organisation.

Nevertheless, the definition of House (1981) will be given more attention since this investigation has close ties with it.

### 1.5.3.  Categories of Social Support

In examining the social support aspect, findings indicate that the socialisation process is facilitated for the sample population that we will use for this research

through House's (1981) four categories of social support which are: emotional, instrumental, informational, and appraisal. These four categories were later studied by many researchers and the version used for this investigation, would be the measures used in psychology developed by S. Cohen & Hoberman (1983). The adapted questionnaire is listed in the Appendix section.

The following categories will be detailed in the following section.

### 1.5.3.1.   Self-esteem

Also called *Emotional Support*, this category is associated with sharing life experiences in general and involves the prerequisite of empathy, love, trust and caring. It consists on the conviction that others are willing and able to provide caring and understanding (Helgeson, 1993; Schaefer et al., 1981).

As cited by Frison & Eggermont (2015) "Perceived emotional support or information leading the subject to believe that he is cared for and loved, esteemed and valued and belongs (Cobb, 1976) has been recognised to improve individuals' well-being (Murberg & Bru, 2004; Rueger, Malecki, & Demaray, 2010)".

As emotional support is sought in friends, it is however perceived differently nowadays since friends are to be found online and in social networks (Liu & Yu, 2013)as they facilitate supportive interaction among teenagers(Hampton, Goulet, Rainie, & Purcell, 2011).

In addition, according to Rains (Rains & Brunner, 2015) "Perceived support availability is a fairly robust predictor of beneficial health-related outcomes (Gruenewald & Seeman, 2010; Holt-Lunstad, Smith, & Layton, 2010; Uchino, 2009) ." Examples include expressions of caring, concern, and sympathy towards relieving pain and stress.

### 1.5.3.2.  Tangible Support

Also called *Instrumental support, it* involves the provision of tangible aid and services that directly assist a person in need. It is provided by close friends, colleagues and neighbours. Examples would be lending money, borrowing a car, calling and transporting a person to emergency…etc.

At this stage, the help sought is to be fulfilled with a concrete help like money or a touchable thing. It is not linked to giving advice and/or opinions.Examples include providing       financial       or       practical       assistance       (e.g., job referrals) for a network member in need.

### 1.5.3.3.  Informational Support

*Informational support* involves the provision of advice, suggestions, and information that a person can use to address problems. The person in need may consult friends, relatives and family members to give their opinion, retell from their experience and provide trustworthy information. The person would feel confident in decision-taking because he has sought advice from trustworthy persons. This step does not involve any physical or material matter. It could be a phone call, an email or an opinion resulting from face-to-face interaction.

Examples include advice, factual input, and feedback to help network members evaluate actions and make decisions.

### 1.5.3.4.  Appraisal Support

*Appraisal support* involves the provision of information that is useful for self-evaluation purposes: constructive feedback, affirmation and social comparison. The person is certain that when in need, the called person may come physically and stay as a companion for a time until the other feels better. It is a social behavior of getting physical contact which may relieve the person in need. Examples include providing companionship or verbal reinforcement about one's choices. Still others have examined the relationship between social support and psychological distress,

size and structure of a social network, and individual differences such as attachment motivation and relationship commitment(Vaux, 1988).

### 1.5.4. Differences and Issues in Defining Categories of Social Support

In defining social support, some differences are to be found related to issues resulting from the wide range of definitions found, as explained in this part.

#### 1.5.4.1. Introduction

There are as many definitions as there are studies related to Social Support. What adds complexity is that even the measures used to differentiate between the categories still vary from one research to another. What is certain, however, is that social support is always linked to emotion, caring and well-being of the individual while overlaps are inconsistent when it comes to the categories. One example is tangible support which is used intercheangibly with instrumental support, while others qualify it with the emotional one.

In this section, the issues resulting from such a 'blurring' definition are highlighted, following the pioneering study conducted by Tardy (1985) stating that *:" The solution, however, is not to get people to reach consensus on a single definition. Rather, the solution is to recognize and discuss issues involved in defining the concept at the theoretical and operational levels." (Tardy, p.188).*

Such Issues are summarised as aspects of social support in a figure as; Direction, Disposition, Description/Evaluation, Content and Network.

#### 1.5.4.2. Issues

Aspects of social support related to issues are summarized below.

### 1.5.4.2.1.      Direction

Because Social Support is a process both given and received, there is no issue related to the direction, i.e, who gives and who receives. The issue lies in the fact that some researchers do not investigate both directions but only one. For example, the majority focus on 'receiving'social support with few working on the 'conveyance of support'(C. I. Cohen & Sokolovsky, 1979; Fischer, 1982; McFarlane, Neale, Norman, Roy, & Streiner, 1981; Miller & Ingham, 1976; Tolsdorf, 1976)

### 1.5.4.2.2.      Disposition

This is studied either as 'availability of support' meaning the quality or quantity of support to which people have access eg.(Barrera, Sandler, & Ramsay, 1981; Sarason, Levine, Basham, & Sarason, 1983) or under the name of 'enactment' which refers to the actual utilization of these support resources e.g. (Barrera et al., 1981; Burke & Weir, 1978; Carveth & Gottlieb, 1978)

### 1.5.4.2.3.      Description /Evaluation

Those are two distinct facets of social support which are often studied as competing conceptualisation e.g.,(Monroe, 1983; Sarason et al., 1983), although evaluation is concerned with people's satisfaction of social support only e.g.(Barrera et al., 1981; Cauce, Felner, & Primavera, 1982).

### 1.5.4.2.4.      Content and Network

This is actually the core of research on Social support since it is concerned with the confusion of the categories firstly cited by House (1981). Since, if the act of 'giving money' to someone is different from 'tapping him on the back for agreement', both constitute an act of social support. It is the classification which is problematic. Is this an example of emotional support or appraisal or both, or neither the first nor the second. In this sense, many alternatives are found (Carveth & Gottlieb, 1978; Coppel, Fiore, & Becker, 1983; Walker, MacBride, & Vachon,

1977, Gottlieb 1978), since some categories are examined individually and others in combination with each other.

**Network:** Also known as the social dimension or the people. While some studies focus on the members of the network, others rather deal with the characteristics of the people in the support network and other studies question the mere existence of a supposed network(Hammer, Makiesky-Barrow, & Gutwirth, 1978; B.J Hirsch, 1981) . Tardy (1985) insists however, that investigations should focus on the people providing and/or receiving support.

The network members can be family, friends, neighbours, colleagues, care-givers…etc.

The figure below represents a summary of the listed issues.
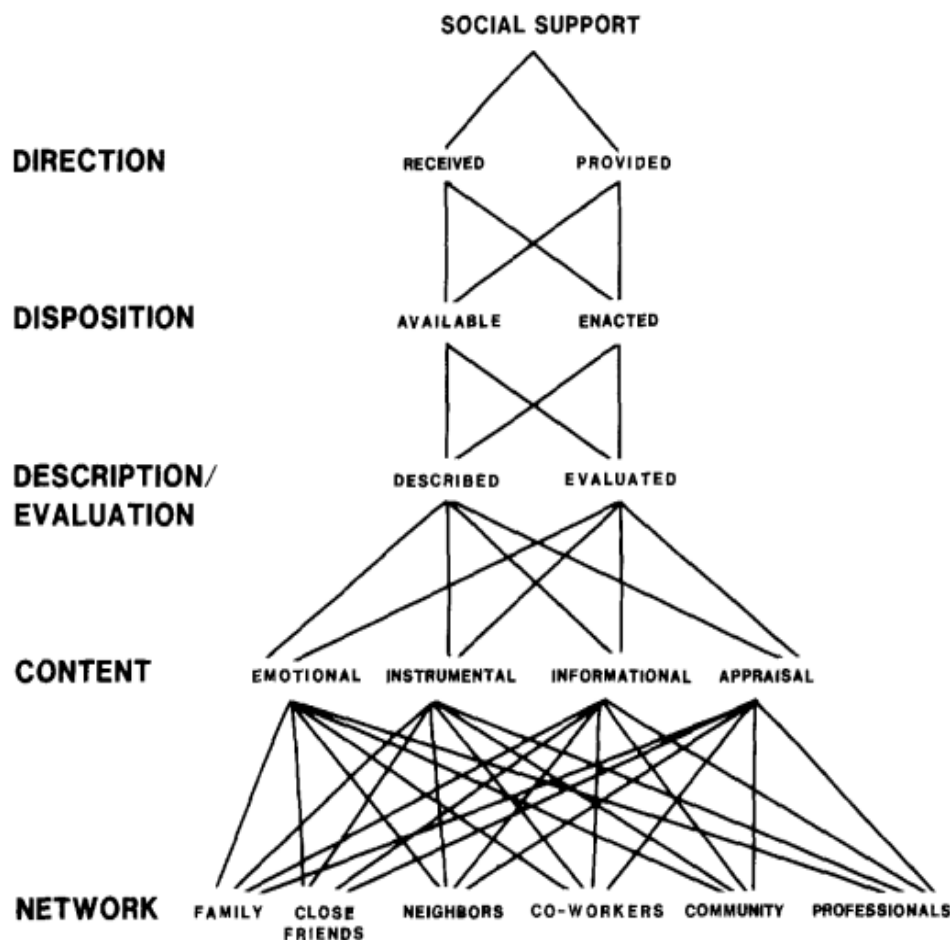


**Figure 3: Aspects of Social Support by Tardy, 1985.**

## 1.6.Online Social Support

In this section, online social support is defined as different from S.Support.

### 1.6.1. Introduction

With the rise of internet use, social support has been transferred into the world wide web with online communities developing in every topic. Therefore, many platforms have been created by caregivers especially for people suffering from different diseases as a parallel juncture with the physicians' healing process.

Many are devoted to mental and psychological disorders, ranging from anorexia to dementia, while others are gender-based like breast cancer or prostate. Meanwhile, some groups are age-oriented like teenage hazing or ageing, and this has ascended confusion and perplexity in the definition and the research methods applied to the concept.

In brief, unlike social support, online social support is not exclusively associated with sickness, illness and injuries but rather means 'caring' as a broad term since Social support moderates caregiver burden, yet studies using different conceptualisations raise questions about validity.

One example is about the framework of Cooper's (1984) methodology, as an integrated literature review was used to examine 50 studies (1980-1995) involving adult caregivers of older family members. The findings report inadequate explication of social support, potential spuriousness and reverse causation, threats to statistical conclusion validity, and lack of generalisability were found. Hence, progress has been made in care-giving and social support research, yet many problems remain. Recommendations about future research include multiple measures of support, controls for spuriousness and reverse causation, valid and reliable instruments, and samples of diverse populations. (Vrabec, 1997).

In the same context, the methods used to research the data are different from SS as shown in the following part.

### 1.6.1.1. Algeria : Mobile infrastructure/ Broadband statistics and analyses

In order to understand the impact as well as the relationship between internet and online social support, a picture of the internet and broadband access of the country is of prime importance as shown in the table below:

| | Numbers | Year | Source |
|---|---|---|---|
| Algerian Internet Usage | 15,000,000 Internet users   37.3% of the population | June/2016 | according to IWS[3] |
| Algerian Internet Usage | 15,000,000 Internet users   36.5% of the population | 2017 | according to IWS |
| | | | |
| Mobile penetration | 108% | End of 2016 | According to internet telecommunications research site on the internet[4] |
| | | | |
| Facebook Users | 15,000,000 | June 30, 2016 | according to Facebook[5] |
| | | | |
| Latest Population Estimate | 40,263,711 population 37.5% | 2016 | according to US Census Bureau[6] |
| Latest Population Estimate | 41,063,753 population 36.5% | 2017 | according to US Census Bureau |
| Gross National Income | GNI per capita is US$ 5,340 | 2015 | according to the World Bank[7] |
| Country Area | 2,381,741 sq km | 2017 | According to internet world stats[8] |

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[3] http://www.internetworldstats.com/stats1.htm
[4] https://www.budde.com.au/Research/Algeria-Mobile-Infrastructure-Broadband-Operators-Statistics-and-Analyses?r=51
[5] http://www.facebook.com/
[6] http://www.census.gov/
[7] http://www.worldbank.org/
[8] http://www.internetworldstats.com/af/dz.htm

**Figure 4: statistics about Algerians internet users**

The table shows that just as Algerian population is increasing, the rate of broadband and wireless internet access is increasing too.

### 1.6.1.2.   History of Online Social Support (OSS)

A historical eye-view is necessary about the birth of OSS before depicting the definition(s).

Previously, before the introduction and spread of the internet (early 1990s), online social support communities primarily were formed on dial-up 'bulletin board[9]' services. Messages seeking and giving support traveled by means of volunteer relay from one area of the world to another by way of local operators. Online commercial services then developed; support groups on commercial online services such as 'Prodigy', 'CompuServe' and 'America Online' provided a means for a larger number of people facing similar concerns to connect and communicate electronically.

In the mid-1990s, the use of 'listservs', or 'e-mail based discussion lists', based on health conditions developed very quickly. At the same time, large-scale consumer use of the World Wide Web substantially hastened the development of further online communities, incorporating modalities such as 'discussion boards' and 'chat' services. These online support communities represent a notable change in the quantitative and qualitative experience of social support, yet at the same time retain many traditional characteristics. Their development has spurred the formation of an "underground" by which persons in need of support for health concerns can quickly pass information along from one person to another, gaining support from persons who understand their condition. (LaCoursiere, 2001).

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[9]See the table of 'operational definitions' for further details about these technical terms in page 5.

### 1.6.2. Online Social Support  Definitions

At any point in time, it happens to anyone to be diagnosed and enters the internet in order to have more information that matches his/her curiosity. The next step after talking to relatives/friends can be to follow online groups and members who share the same interest related to their illness, or what is known as a Cop "Community of Practice".

Joining an online CoP may be of great benefit but the main reason is seeking trust, caring, affection and comfort. Accordingly, this step of taking part on a discussion board online with full anonymity behind a screen in order to look for supportive feelings has extended beyond patients suffering from specific illnesses. It is also the concern of million of net users every day to overcome their daily life issues as it became part of their basic routine seeking positiveness. This is what is named in the jargon as Online Social Support (OSS)

Online Social Support has been defined as *"the cognitive, perceptual, and transactional process of initiating, participating in, and developing electronic interactions or means of electronic interactions to seek beneficial outcomes in health care status, perceived health, or psychosocial processing ability."* (LaCoursiere, 2001).

The writer adds that *"It incorporates all components of traditional social support, with the addition of entities, meanings, and nuances present in a virtual setting, and unique to computer-mediated communication."*

The author makes a focus on the uniqueness of CMC and its benefit as well as positive impact in mutual self-care.

### 1.6.2.1.  Vrabec's Framework

Traditionally developed in the health-care context, SS occurs first from doctor to patient, and then develops into OSS from doctor to patients online, or from patients-to-patients online with or without practitioners. This provides a

powerful effect on physical and mental health enhancing mutual exchange especially in stigmatised diseases (T. Ferguson, 1997)

In health literature, Vrabec (1997) set a framework with three functions as follows:

- Structural aspects of the support network: they involve the members who make up the group like family members, relatives, friends, neighbours and acquaintances.
- Functional types of assistance available or received: this category is related to emotions and expressions. A person provides instrumental, tangible or physical exchange supporting and comforting the others.
- Nature of the support: this category is empirical by research with related variables.

Also, SS has been cited in different researches as a mitigator of depression and mortality with a positive role in mental functioning. (Hunkeler et al., 2000)

### 1.6.2.2.   Lacoursiere's Framework

This framework extends beyond the health care milieu and uses multidisciplinary methods related to social sciences in general. Lacoursiere defines OSS as a trajectory or a dynamic process with many fluctuations over time as a positive feedback phenomenon. Thus, the positive experiences increase positive outcomes which in turn, provide more impetus to seek support and vary from one individual to another.  (Lacoursiere, 2001).

Part of this framework is 'linking'. It is defined as "the conscious and/or unconscious process of relating and weaving emerging awareness to previously learned thoughts or information; it is the final outcome of online social support" (Lacoursiere, 2001:7).

Linking in this sense is not only related to connectedness and intertwining, but also to the relation of OSS with web-based vernacular. In other words, the person who is active member of a group would develop a special relationship with the online members that only he/she will understand. It is a process of integration where the

words in the forum would have a special meaning far different from the first days where the member connected. Facts and perceptions would be linked at the end of the experience while individuals form their own personal meaning of the online social support environment.

### *1.6.2.3.* **Other studies about OSS**

Barnes & Duck (1994) define OSS as an exchange of verbal as well as non-verbal messages, which transmit emotion or information in order to reduce the uncertainty or the stress of a person. Accordingly, they highlight the importance and impact of positive support between people. All the studies draw attention to the same types of support be it Emotional, informational or tangible.

For the team of Tixier and Lewkowicz (2010) OSS studies are mainly related to benefits and drawbacks. With numerous advantages, they cite media accessibility, availability of participants, the suppression of geographical distances and frontiers and asynchrony. On the other hand, some drawbacks mainly related to technical issues are referred to like the necessity to have a computer linked to the internet, the decontextualisation of the communication (which may favour misunderstanding) and the lack of qualification from the helpers themselves. They criticise previous works related to OSS because the communicative event or speech act is rarely the main objective of the researchers. (Unlike this thesis which focuses on sociolinguistics).

### 1.6.2.3.1. **MISS (Models of Internet for Social Support): An Interdisciplinary Approach**

Tixier et al (2010) suggest a model inspired from a multidisciplinary perspective with an innovative and more reliable methodology aiming to:

- analyse online social support activities
- model these activities
- computer-based functions improving online social support

They intend to confront on one hand the observation of real online social support exchanges for instance on newsgroups (bottom-up approach), and on the other hand, the main theories related to social support (top-down approach).

It is divided into six steps summarised in the table below:

| 1. Functional description | In this step existing forums related to social support are set aside for analysis. |
|---|---|
| 2. Sampling | Sequences of the exchanges related to OSS forums are isolated as scripts of patterns of interaction. |
| 3. OSS conditions | Literature theories related to OSS are applied in order to identify the conditions for the successful outcome of a social support exchange while combining steps 2 and 3 allows to define communication contract(s) for OSS |
| 4. OSS functions | The conditions of success of a social support exchange are outlined to design the functions from step 3. |
| 5. Implementation | Once the functions have been designed, the next step is to implement them in a special platform according to the type of support: emotional, informational and/or tangible support |
| 6. Evaluation: | This last step constitutes the final outcome of the framework since it allows testing and evaluating the |

| | |
|---|---|
| | analysed data. It comprises:<br><br>• Usability test to evaluate the relevance of the scripts<br>• Use evaluation in real settings;( their example was a platform used in a healthcare network dedicated to Alzheimer's disease) with the aim to provide assistance to friends and families of sick people.(Tixier et al., 2010) |

**Table 2: MISS (Models of Internet for Social Support) developed by Tixier and Lewcowicz al ( 2010)**

### 1.6.3. Issues Related to Online Social Support

Many issues may result due to online social support. This section investigates this with the appropriate literature.

#### 1.6.3.1. A General View

Joining any group online in order to look for support will have an impact on the person (consciously or unconsciously).

With more than 4 million persons suffering from Diabetes in Algeria and nearly 3 million from cancer (source: National Office of Health in Algeria, 2017), many Algerian patients suffering from different deseases are looking for online social support in their area. One of the best example, is the website http://sahti-dz.com which has been granted as best website in the Algerian web Awards 2016. This site dedicates forums, bulletin boards as well as other Social network sites (Facebook, twitter, Pinterest, google share, linkedIn..etc) for health of the citizens. This shows the promise and potential of OSS as a fact that at least patients are attracted to.

Below is a screen capture of the general Bulletin board in French:

**Figure 5 example of a health forum in Algeria sahti-dz.com**

The topics vary from basic headaches to cancer treatments and patients are free to choose the language, although it is mainly in French, some topics are originally launched in English (named 'lithotomy' by UNALUZAJQE in the above example), while others include Arabic or French and AA in their replies spontaneously.

The next example snapshot is to show the affluence and success of the OSS platform by measuring the number of comments and dynamicity of the forum. (892 in pediatrics)

| Sujet | Participants | Messages | Dernier message |
|---|---|---|---|
| Propolis<br>Démarré par: erynia | 3 | 217 | il y a 1 mois et 3 semaines<br>erynia |
| Who's listening to Jason Aldean?<br>Démarré par: Anst | 1 | 668 | il y a 1 mois et 4 semaines |
| Pédiatrie<br>Démarré par: Admin-sahti-K | 4 | 892 | il y a 1 mois et 4 semaines<br>Admin-sahti-K |
| Épilation au lazer<br>Démarré par: Amina | 1 | 683 | il y a 1 mois et 4 semaines |
| L'Algérie ne veut plus de vaccins « suspects » !!!<br>Démarré par: Algérie ne veut plus de vaccins suspects | 1 | 654 | il y a 1 mois et 4 semaines |
| traitement d'oedeme macculaire<br>Démarré par: djouaher | 1 | 675 | il y a 1 mois et 4 semaines |
| Golf cart taxi scottsdale<br>Démarré par: Philipmib | 1 | 680 | il y a 1 mois et 4 semaines<br>buy metformin |
| Tomothérapie<br>Démarré par: rachid | 1 | 468 | il y a 1 mois et 4 semaines<br>nzolismurgy |

**Figure 6 Snapshot from the website sahti-dz.com showing the number of messages.**

While many studies focus on how people cope and overcome stress issues through OSS, others focus on the psychological and mental improvement of the persons as detailed in the following section.

### 1.6.3.2.    Psychological Issues

For Dietrich (2010), people who are suffering from psychological issues find OSS groups very useful. Examples comprise but are not limited to Suicide, depression, drug, alcohol addiction and bereavement. These persons rely on an organised 12 step programs entirely online with a high efficiency, replacing face to face interaction.

Also OSS has been shown to be extremely helpful for persons who lost a loved one as electronic connectedness offers the bereaved persons the ability to feel supported in a social network. Thus, research on bereavement has shown they this group category are at higher risk of mental and health problems  such as depression or anxiety disorder (Vanderwerker & Prigerson, 2004)

### 1.6.3.3.    Other Issues

According to Schwerdtfeger's research (2008), caretakers should turn to online support groups to help cope with stress.

Stress can be generated for all age categories, whether a child because he failed at an examination or an elder suffering from loneliness. Depending on the insurance contract, in the United States for example, care givers may go to homes in order to talk, listen and try to comfort the persons who called them. This is time consuming and bound to place unlike OSS platforms which offer being connected at one's pace.

Additionally, social stress is found in many circumstances at any time as an outcome of the complex human interactions and human nature of the persons. Social stress can manifest in marriages, peer groups, and work environments and may not be immediate or acute; while social stress the typically chronic nature of social stress is nonetheless harmful (Folkman & Lazarus, 1988).

As a result, people suffering from social stress may develop mechanisms to cope with stress and handle it through OSS. This implication will reduce their stress, since according to the cognitive Transactional Model, people with a weak network of support and few coping techniques may feel stressed with small, less significant hassles. On the opposite, those with a more advanced support system may experience less feelings of stress with the same level, or more stressors (Baum, 2004)

### 1.6.4.  Factors related to  Online Social Support

As suggested in this part, research provides evidence that other factors may influence the way we deal with OSS like age, gender or ethic category.

### 1.6.4.1.    Gender Differences

Men and women can be different in many matters. Stress coping is one of them in dealing with social relationships (E. . Greenglass, 2002). Some studies

indicate that women outnumber the men in the use of the internet for social support like the study conducted by (Seçkin, 2009) who found that out of 31 OSS groups for cancer,  approximately 75% of the participants were women.

In line with gender differences in OSS groups, Sullivan (2003) showed that posts provided *Emotional Support* (though compliments, thankfulness, politeness and positive encouragement) sharing personal information in a group about Ovarian problems. While in the group of Prostate in men's discussion, it was about *Informational Support*. Participants posted technical sequences to inform the others. Alternative treatment options were discussed, and the men seemed to adhere to a set of well established group norms; the discussions were informational and not personal in nature.(Dietrich, 2010).

It is not yet clear why this difference exists. Dedovic *et al*. (2009) have posited that the gender differences in coping, utilising social support, may be accounted for in some part because of the gender socialisation process rather than some biological explanation.

### 1.6.4.2.   Age Differences

Many studies examine online social support across all populations, including adolescents, adults, and the elderly (E. Greenglass, Fiksenbaum, & Eaton, 2006; Leung, 2007).

For Leung (2007), although some children and adolescents use the internet for entertainment, relaxation, information, social identity and the ability to develop and maintain social relationships; other children and teenagers use it to help alleviate stress and depression through support groups.

For the old persons/seniors, mastery of technology and low vision can be a barrier to getting online although roughly 4 million senior citizens were using the internet according to Carnegie Mellon Cylab (2009). This number is in constant rise throughout the world (statistics unavailable in Algeria for this age-category)

The users are most often wealthy, well educated, married men while many retired people are not able to afford the expenses associated with being online (Hardt & Hollis-Sawyer, 2007).

It is important for seniors to join OSS groups as it could help them to overcome loneliness, ageing and cope with stress for different matters like being stigmatised. This research is to be criticised as well since it attests that the more people are getting older, the more their social circle shrinks. This is to be verified because it may not be true for all societies (like Algeria with the high place of elders in the family) (Gow, Pattie, Whiteman, Whalley, & Deary, 2007)

### 1.6.5. Outcomes

Outcomes or results are at the level of individual after spending time online joining some OSS groups. The effects are considerable while some research is about the effectiveness and others about the positive values. This part will deal with both positive and negatives outcomes of OSS.

### 1.6.5.1. Positive Outcomes

Different studies focus on the individual and the direct outcome related to OSS. When a person feels 'weak' because of a sudden personal event (illness, death, joblessness…etc), stress becomes a factor that may lead to disastrous outcomes like suicide. Hopefully, many persons seek online support to cope with stress as they develop special mechanisms to feel less lonely and manage their problems. In this sense, a summary of Dietrich (2010) investigation is adapted below.

- **Wright's Study:** (Wright, 2000) this research values the link between time spent online in SS sites and the feeling of wellness, since people of this study report to feel less lonely, more satisfied and pleased with the help of family and friends through SS sites. Also, Wight reports that the more people spend time communicating online (writing/ talking), the more satisfied they are and less stressed they become.

- **Lieberman and Goldstein's Study:** (Lieberman & Goldstein, 2005)this research explored the impact of asynchronous discussion on patients. The results demonstrate that psychologically; the quality of life improved and the members felt less depressed and better emotional well-being. Also, for the lurkers (people who read the posts without commenting or participating) have also positively benefited from OSS group sites.

- **Baum's Study:** (Baum, 2004)unlike the preceding ones, this study does not focus on patients but on caregivers and parents, in other words 'the helpers'. The result is that this category of population feels connectedness and less isolation when joining OSS related to what they do. People caring for disabled and loved ones, decrease their stress and increase their sociability thanks to OSS.

- **Huws et al. Study:** (Huws, Jones, & Ingledew, 2001) also related to caregivers who may experience stress and isolation, this study concludes that caregivers would generate new understanding about their area of concern thanks to OSS. It also highlights that OSS is not enough for this category of people to keep up with their job, as they need free time for shopping, activities and discussing face-to-face with other people out of their circle.

### 1.6.5.2.  Negative outcomes

Although positives outcomes are important to enumerate, one should not neglect the negatives outcomes as well, which may be related to cutting with the face to face interaction and moving to social sites to seek assistance or help. Some are listed below:

- **Mulveen and Hepworth's Study:** (Mulveen & Hepworth, 2006)this study investigated Anorexia as an online supportive group. The results showed that as people were anonymous and free to talk without stigma behind the screen, they pushed and encouraged other members as a 'need' to be anorexic. Members found emotional support to set a

goal for loss weight and complimented each other. The researchers called this position as 'the sinister side of OSS'.

- **Kraut et al. Study:** (Kraut et al., 1998) this study is more general and concludes that actually the internet isolates the individuals, leads to less communication among family members and reduces the size and scope of social circles resulting in loneliness and despair. Although it does not focus on Online Social Support but Online Social sites in general, the current research has mixed conclusion and is not very comprehensible on the clear-cut between the positive and negative outcomes of OSS sites.

## 1.7.Part III: POLYLANGUAGING, CMC, Facebook

New concepts related to linguistics are arising due to the interaction in online communities.Polylanguaging is one of them as explained in this part.

### 1.7.1. Introduction



**Figure 7: snapshot from a funny Facebook page representing Algerian speech on the internet as a form of 'polylanguaging'**

If one considers the following excerpt (figure 7) written by Algerian adolescents on Facebook, will the reader categorise the conversation to a particular 'language'? or rather bilingual/multilingual citing all the languages used? Or maybe it is a register, sociolect, jargon or typical bilingual conversation with its features of diglossia, code-switchiing, code-mixing and borrowing?

In this conversation, the two interlocutors converse in Algerian Arabic , the local dialect shared by all Algerians; in addition to some words in French, many words assimilated into Arabic (although originally borrowed from French), but also other words from English, Italian and Spanish maybe.

Does this mean that the two teenagers master all the cited languages?

These questions are challenging the notion of 'language' named as 'French', 'Arabic', 'Danish'…etc and contradict the structuralist approach of De Saussure (1917) with a clear cut context-bound syntax and grammar. In fact, the way of 'categorising' languages is rather an ideological concept born in Europe to set dissimilarity. If we consider the example of African 'languages', the coloniser set the word 'language' to name 'Shona', 'Berber', 'Tsonga' or 'Tswana' to name a few. But in fact, the language was an overlap of many others which the coloniser denied and used it as a way of divising and categorising the population knowing that it is the Europeans (in the 1700's) who labelled  the language as such and not the speakers of that language. (Makoni & Pennycook, 2005) .

History proves that the white Christo-European missionaries had a vision that Africa was a blank slate and they had to 'map' it (Blommaert, 1999). Unlike georgraphy, botany and natural sciences, languages were 'invented' by the coloniser according to 'their' limited knowledge of the local speech, as reported by Makoni and Pennycook (2005) "Missionaries, administrators and other colonial functionaries wrote grammars and textbooks which were based on very particular constructions of languages rather than the local languages used by the natives themselves, contributing to the Christianization of 'indigenous' languages' (Isichei, 1995; Renck 1990)."

Often, the language that they named as such, was a contact language including English and dialects from the local places. The inhabitants themselves could not fully understand what was supposed to be 'their' mother tongue. It was a supremacist idea to view Africa (or India) from how it 'should be' according to Europeans. This was particularly emphasised in the 1800's and the locals were fully aware how their 'indigenous' language was codified. As Makoni and Pennycook reported about Rusike's comment (Makoni & Pennycook, 2005):

> No African was given a seat in the unification committee and the use of the results is that the newly formed language is all a mixture of Xhosa, Zulu, Ndebele, Kitchen kaffir, Nyanja and English. To my mind it's not Shona language that the white people are trying to force but a white man's language. (Rusike, Bantu Mirror 1934)

In 1957, Chomsky was already skeptical in naming 'languages' as defined categories with clear borders and for sociolinguists, it was very difficult to separate languages like 'German' and 'Dutch' which are in fact dialects of the same root with high mutual intelligibility (Romaine, 2006).  Naming a language was a nationalist idea encompassing an ideology while it should be a social act as stated by Makoni & Pennycook "*languages do not exist as real entities in the world and neither do they emerge from or represent real environments; they are, by contrast, the inventions of social, cultural and political movements*". (2006: 2).

In fact, 'language' should be seen, analysed and researched as 'set of features' which goes with  recently developed sociolinguistic understanding that this view of language cannot be upheld on the basis of linguistic criteria.Jørgensen  *et al*(2011) state that :

> "Languages" are abstractions; they are sociocultural or ideological constructions which match real-life use of language poorly. This means that sociolinguistics – the study of language as a social phenomenon - must work at another level of analysis with real-life language use".

Since language is not monolithic and changes over time according to many factors, it should be studied and investigated by taking into consideration those factors. The language of facebook and social media and chat in general is one of the factors that should not be neglected. The current study cannot be based on former research on language ignoring this CMC feature. In this sense, Jørgensen et *al* state that "*The notions of "varieties", "sociolects", "dialects", "registers", etc. may appear to be useful categories for linguists. They may indeed be strategic, ideological constructs for power holders, educators, and other gatekeepers (Jørgensen 2010, Heller 2007). However, what speakers actually use are linguistic features as semiotic resources, not languages, varieties, or lects (Jørgensen 2004, 2008, Møller 2009)".*

A need for a new methodology to study (and transcribe) spontaneous language acts is primordial as the way we communicate is definitely changing with the extensive use of CMC. Ritzau (2015) comments that:

> The idea of distinct, countable languages as objects of analysis has been dismissed (Makoni and Pennycook 2007; Heller 2007; Lemke 2002), and suggestions for new approaches are currently under discussion. The notions of languaging (Jørgensen 2010b), polylanguaging (Møller and Jørgensen 2011;Jørgensen et al. 2011), linguistic repertoire (Blommaert and Rampton 2012; Blommaert 2009) and register (Agha 1999, 2005) all view language as a social phenomenon among human beings rather than as coherent units isolated from use.

Along with languaging, other concepts are being introduced in modern sociolinguistic diaspora as *"the concept of translanguaging in the current social context of diversity [...] hybridity in language such as transidiomatic practices (Jacquemet 2005), crossing (Rampton 1995), code-meshing (Canagarajah 2011), or cognitive-psychological theories such as Dynamic Systems Theory (De Bot, Lowie and Verspoor 2007)"*(Moyer, 2016)

For the purpose of the current investigation, new concepts will be defined as languaging, translanguaging and polylanguaging as mentioned in the following part.

### 1.7.2. Languaging

The term 'languaging' was first used in 1973 by Maturana and Verela (Chilean biologists) as a structural approach to what they named *autopoiesis* by stating that " we cannot separate our biological and social history of actions from the ways in which we perceive the world (Maturana & Verela, 1975)".

Other authors who have used the term are Becker, Chambers, & Wilks(1988) and Mignolo (2000) who defines it as "a form of thinking and writing between languages"(p.226)

Jørgensen describes languaging as 'the phenomenon that human beings use language in interaction with others, in order to change the world".

For Møller & Jørgensen (2012) languaging is the use of language and not of a particular language. In this sense they define it as "*The human capacity to acquire (or develop) arbitrary signs for creating and negotiating meanings and intentions and transferring them across great distances in time and space, is traditionally considered organized in so-called "languages".*

### 1.7.3. Polylanguaging

As the current study will deal with data from social media sites (youtube and facebook), 'polylanguaging' as a sociolinguistic phenomenon will be used for analysis since it comprises alternation of codes online as stated by Jørgensen et al.(2011).

We will consider a speech act as 'polylanguaging' when elements from different languages and dialects are found in an online conversation even if the speakers do not master the languages mentioned as Levender (2017) notes *: "Users who polylanguage are those who include elements in their posts from a variety of languages even though they might not be speakers of those languages."*

He suggests the following example from the study of Jørgensen et al. (2011):

Har købt the equipment, skal bare finde tid til at lave en spektakulær én kun tje dig morok, den skal være speciel med ekstra spice :P, sorry tar mig sammen denne weekend! insAllah

*Translation*: have bought the equipment, must just find the time to make a spectacular one just for you **morok** [Turkish = old man, father], it must be special with extra spice :P, sorry pull myself together this (weekend)! **insAllah** [Arabic = if God wills it]

although he speaks neither Arabic nor Turkish.

This implies that speakers may integrate some features from other languages even if they don't master them. Reasons and attitudes towards such behaviour will also be highlighted in the current investigation, although it is no surprise that they do conform to code switching and code mixing attitudes in face to face conversation.

In brief, if one should re-consider the snapshot from figure 7, it is a form of polylanguaging, since the writer includes elements from more than one language although he may not master them all. Polylanguaging is also related to competency alternation of codes. Jørgensen et al. (2011) note these diverse language practices in social media sites and concludes by stating that 'Users who polylanguage are those who include elements in their posts from a variety of languages even though they might not be speakers of those languages.'

## 1.8. Social Media

This part introduces social media in general with its special features.

### 1.8.1. Introduction

Today, it is no surprise that social media are present everywhere for every age category, from the farthest remote village to the most developed city; internet has joined the gap between the teens and the elders who become friends on social media sites like Facebook. Additionally, Social media are present in every sector from education to business and marketing. Moreover, people are becoming so close

to social media that they may even affect their personality. One example is cited by Mehdizadeh's study about psychologists who identified some young adults as suffering from low-esteem due to the great amount of self-promotional content on their Facebook page.(Mehdizadeh, 2010)

While research is constant in this area, on the market place, some job employers require the facebook page of the interviewees in job selection in order to have an idea about their profile, and an extreme case, was job employees asking for the facebook password of the job seekers in order to access their private files (chat log, pictures…etc) as reported in the *Sydney Morning Herald* (2012).

Therefore, this section cites the main literature associated with Social media and their correlation with the current study.

### 1.8.2. Connectedness and Connectivity

The emergence of social media sites came through different phases while the main purpose was a promise for connectedness. When facebook started, it targeted more transparency, a new form of democracy where everything is visible for everyone everywhere and every time. It also focused on human connectedness, meaning people would deliberately choose to become friends with others whatever the place according to some criteria they would choose. Years later, the shift from this deliberate connectedness into connectivity became uncontrollable. Van Dijk (2013) states that *"Over time, social acts of self-expression on SNSs quickly began to give way to more conscious acts of self-staging as people's presence and popularity was increasingly measured by their online manifestation"*.

Unlike connectedness, connectivity is a form of artificial intelligence monopolysed by softwares and special algorithms which suggest web pages you may like and follow according to your recent search. Another form of connectivity is when you no longer look for a friend, but your SN will recommend who you *may* know or you *should* be friend with. Therefore, the self-promotion is easily constructed (reconstructed and deconstructed too) in nowadays social networks. Many forms of data become public as the software reminds you of a parent's birthday, how long

you've been 'friend' with a person, the best memories to be shared about an event and much more.

This personal and behavioural data are becoming valuable resource to be exploited by marketers for example.

When a person 'follows' a page, 'likes' a product or 'comments' about a reaction, this is automatically translated into algorithms which reveal your needs and behaviour. Marketers who use to 'buy' these data now contact persons automatically of their SN pages and suggest an offer like ; trip, restaurant, event…etc. this is better explained by Van Dijk (2013)who states that:

> The more connections users make to both human and nonhuman entities, the more social capital they accumulate (Ellison et al., 2007). And the more social capital people assign to things and ideas, the more economic capital can be gained from connectivity. The automatic mining of personal and behavioral data is arguably platform owners' most important driver for promoting online traffic; at the same time, standardizing data input guarantees better results.(p.202)

### 1.8.3.  Online Social Capital

Although Social Capital denotes "the resources accumulated through the relationships among people (Coleman, 1988) Social capital is an elastic term with a variety of definitions in multiple fields (Ellison, Steinfield, & Lampe, 2007) .

Bourdieu and Wacquant (1994) define social capital as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (p. 14)

 Social capital researchers have found that various forms of social capital, including ties with friends and neighbours, are related to indices of psychological well-being, such as self esteem and satisfaction with life (Bargh et al., 2002; Helliwell & Putnam, 2004) .

The Internet has been linked both to increases and decreases in social capital. In this context, many studies are in contradictions. One example is Nie (2001) who argued that Internet use detracts from face-to-face time with others, which might diminish an individual's social capital, while Bargh & McKenna (2004) criticised this research and suggest a reverse  position.

Other findings claim that online interactions may supplement or replace in-person interactions, mitigating any loss from time spent online (Wellman, Haase, Witte, & Hampton, 2001). In addition, other studies about online networks, have concluded that computer-mediated interactions have had positive effects on community interaction, involvement, and social capital (Ellison et al., 2007; Hampton & Wellman, 2003; Kavanaugh, Carroll, Rosson, Zin, & Reese, 2005).

To enforce the positive effect of social media, Ellison's study posits that  (2007) online interactions do not necessarily remove people from their offline world but may indeed be used to support relationships and keep people in contact, even when life changes move them away from each other. In addition to helping student populations, this use of technology could support a variety of populations, including professional researchers, neighbourhood and community members, employees of companies, or others who benefit from maintained ties.

### 1.8.4.  Multilingualism /Language Choice in Social Media Sites

What languages do people who are multilingual, and have the ability to use many languages, choose in the internet? Or at a more restricted level, what is their language choice in Social Media Sites? Those questions are being investigated by CMC researchers, among them Danet and Herring (2007) in their article entitled 'Multilingualism and the Internet'. They have cited examples of countries like Switzerland, Tanzania and the European Union and found that in those countries, English which is the non-native language of any citizen from the cited places, is the one being used and chosen above all the other local varieties, sometimes as a lingua-franca.

In this case, they have also questioned whether because of English, all the local languages would one day disappear or rather thanks to English, there would be a language revitalisation? Later, they concluded by making the link between English language and globalisation as explained below.

In Switzerland, German, Italian and French are the official languages of the government and the administration while Romansh is used by the citizens, the high variety of German is used for writing and in formal contexts. A study of medical students was carried about their language choice in emails and it revealed that 80% used English as a neutral choice or a lingua franca in their mails, knowing that it is not the mother tongue of any group category for Switzerland.('Switzerland - New World Encyclopedia', 2018; 2012)

For Tanzania, access to the internet is reserved for the government or a certain category of the population (elite, university). The majority do not have web access from homes, notice that even access to electricity grid is complicated, for they need to get to a cyber space in order to be connected. During the British colonisation, the local Tanzanians were instructed in Kiswahili and the Asians or Europeans in English. After independence, both Kiswahili and English were recognised as official languages. Acording to Mafu (2004) , English dominated the Tanzanian internet although people had a very low level in mastering the language.

In the European Union, many translators work thoroughly in order not to exclude any language of the union, and therefore, leaflets booklets and speeches are all available in many languages allowing a freedom in language choice. But according to Wodak and Wright (2004); English is by far the most used language, concluding that most europeans speak English.

All of the above situations question the link between English and globalisation, since under some conditions, the local varieties may disappear. But at the same time, those varieties are under-represented (Mufu, 2004) like hundred local ones in Tanzania, and if they would have access to representation one day, it

must be through English, a language used thoroughly on the web. Therefore, the case would be of revitalisation and preservation. In this context, Gerrard and Nakamura state:

> "As Unicode progresses and the infrastructure underlying communication technologies spreads, large populations of the world will increasingly be able to spend more and more of their day online in their own languages, as is already true of Japan(Gerrard & Nakamura, 2004)

### 1.8.5. Audience Design and CMC

In any speech, audience is what shapes the intention of the speaker targeting a specific category of the population rather than another one. In sociolinguistics, Bell (1984) started his research from a pertinent question "why do some speakers change their language style in some situations?" This has, later on, stressed the theory of *speech accommodation* (already developed by Giles in 1975 and reedited in 1991(Giles et al., 1991)which explains this communicative phenomenon by eliciting dependent factors like :speaker, hearer, context...etc.

Therefore, audience design is of great value in any natural speech conversation, while interlocutors shift their language choice according to the audience. In this part, Bell's theory of Audience Design is first explained, and then a comparison is stated in the new context of CMC.

### 1.8.5.1.   Bell's Model of Audience Designing (1984)

Primarily tackled by the early sociolinguist William Labov, 'style-shifting' constitutes a reality in spontaneous communication with specific techniques (set by Labov) used in the sociolinguistic interview. Bell's theory however, does not neglect the audience and stresses attention on it, since speech alone does not count for all types of style-shfting (Bell, 1984).

Inspired by Giles speech accommodation theory, Bell's theory started from a basic notice, although from the same studio, the broadcasters in a local New Zealand's radio altered their style depending on the program they animated; one attracted

people from a high economic status and the other one, the audience was mainly composed of people from low economic status.

He then identified sociolinguistic variables (postvocalic [t]in this context) responsible for this style shifting, since the broadcasters expressed themselves differently according to the intended audience. Bell's model states that speakers accommodate their speech according to their audience, to express intimacy or solidarity with them as they can also express distance by choosing another speech style.

In his framework design, four types are predominant:

*Addressee: to whom the speech is directed (known by the speaker)

*Auditor: listeners not known by the addresser but are indirectly addressed

*Overhearer: new listeners who do not know the topic (non-ratified) while the speaker is aware of them

*Eavesdropper: neither the speaker not the hearer know about each other (or each others' topic) non-ratified.

In the light of Bell's model theory (1984), the next part deals with Audience design in the electronic context of CMC, although communication in this case is written and not spoken.

### 1.8.5.2.   Audience Design in Facebook

When people decide to write a post on Facebook, their listed friend see it but also some people who will look for a person and are not friends (yet) with that person. This condition makes the social network a semi-public network where the writer can not have a clue about the audience (and as he can know with whom he is talking ).

In this framework, Bell's model (1984) of tuning/accommodating/adjusting one speech according to the addressee is not totally respected.

Because the readership is 'invisible' two people can become friends because both are friends with the same friend, or because they belong to the same group, or they may have the same interests, or could belong to the same family, or another mathematical algorithm made by facebook which suggests a person simply because both of you are located in the same geographical area. This situation does not exist in real life as there is a confusion in the context of befriending a person , in other words, different contexts are allied as one large 'conflated' audience (in P.Sergeant's terms). This phenomenon particular to Social Networks is known in the literature as "context collapse" (Marwick & boyd, 2011; Wesch, 2008).

Because of this context collapse and according to Sergeant et al. (2014), Bell's categories (speaker, addressee, auditor and over-hearer) do not match exactly in a framework of a semi-public audience like facebook. In this context they state that "online audiences are imaginings of the poster's understanding of a community's practices" (p.181).

They rather divided the participants into five (5) categories with the last two categories emerging from speculations about the directed audience. They are as follows:

A. poster of the message (speaker)

B. addressee

C. active friends

D. wider friends

E. internet as a whole.

### 1.8.5.3.   Sergeant et al. 's Model of Audience Designing (2014)

The following model has been proposed by Sergeant et al. (2014) as an alternative to Bell's model (1984) because the communication takes place on the social network facebook. Also, it has been designed following a multilingual facebook community, who consented to be the sample population of this research,

communicating all the posts written in the group. The listed categories above are explained in the following part.

- Poster of the Message (speaker)

This defines the person who initiates a conversation by posting on the 'wall' of the facebook group, or it can also be the person who writes a comment and will receive replies related to that comment only (indirectly to the main wall post).

- Addressee

Within a group, when a member writes on the wall a post to initiate a conversation, it could be public for people who do not belong to the group and therefore are unknown to the addresser, or directed to everyone withing the group (so the addresser has an idea about his audience) or it could also be a 'hinted' message that few could understand. This may be in a form of a picture 'tag', or a special message where few would respond because they have a shared memory with the 'poster'.

- Active Friends

When a person updates facebook status targeting some persons expecting an answer (or reaction: like, unlike), he/she usually will use strategies to be understood only by some, or rather not to be understood by a wider audience. Generally, the targeted friend is a person who replies within seconds and the poster is sure to have a reaction within minutes. This case can be related to a cinema film where, within the group, some have watched together, or a general complaint directed to the members seeking solidarity or intimacy or affection or advice...etc.

- Wider Friends

In Bell's term 'Over-hearers' or more recently, Androutsopoulos (2013) 'lurkers', this category is delimited when the poster has in mind, that other persons even out of the circled group may read and respond/react to the written post. He writes with the intention that the 'imagined' reader who does not belong to the group may respond or not, lurking that is only by reading the post and not reacting at all. This

may be the best situation of a language choice targeting a wider audience. For example, the person who posts withing a circled group, knows the friends in. When those friends are multilingual, he may choose to use a language over another or a romanised version of a language for that no excuse about the keyboard will be showed by the respondents (in this case active friends). Rather, he/she will use a language for a wider audience, known by everyone, even if it is not the native tongue of the persons in the group, to signal or elicit responses from larger persons. In many studies, this language is English acting as a Lingua Franca. In Sergeant's study (2014), an example of a girl named 'Eva' posting on the group wall that she is 'missing a certain man, and that it is not Sinterklass'. She is excluding some members withing the group, and at the same time including others out of the group. As she posts in English (in a multilingual group) she also includes other members (unknown to her) as an invitation maybe to initiate a conversation.

- The Internet as a whole

One consequence of facebook talk is that a conversation may be stored, saved, archieved and accessed far more before it has been written. Depending on the settings set in every profile, data become searchable and scalable to a wide audience. The addressee may be a person known (ratified) to the poster or unknown (non-ratified) imagined (or not) in order to be included (or excluded) in further conversations. It could also be an unknown addressee targeted for a conversation to be initiated in the future (or never).

This comparative study highlights the importance of the addressee in language choice as it is different in face to face talk in comparison to computer mediated communication.

## 1.9. Conclusion

In this chapter, I have argued that the concept of social support, as it is defined in the literature, is    already developed in the social sciences and has a long way to

go in the future. However, when applied to computer mediated communication, it becomes a different concept with its own rules and paradigms, and thus should be studied on its own because different from the original one.

In this sense, Social support in CMC is under-developed yet multiple definitions have been advanced in this chapter, in addition to previous research in the domain designed for a generalised application has been acknowledged too.

In order to illustrate the implications of using Online Social Support in Sociolinguistic research, the next chapter focuses on the linguistic side in general and the sociolinguistics of the country where this study takes place; Algeria.

*CHAPTER TWO*

# *LANGUAGES IN CONTACT AND LANGUAGE PLANNING IN ALGERIA*

# CHAPTER TWO :LANGUAGES IN CONTACT AND LANGUAGE PLANNING IN ALGERIA

## 2.1 Part I : Languages in Contact in Algeria

## Introduction

Due to its extraordinary situation, Algeria has always been targeted by numerous colonial assaults at different levels since some were 'on the side' of the locals, while others overtly came to 'conquer'.

Back in time, the geography of the country makes it a land with a huge potential for agriculture, tourism and what we call now 'Grenary' (Balout, 1955) because of its flourishing production of wheat. But it was also famous for ceramics and crafts making among the top in the Mediterranean Basin. Archeology attests of imperial ruins (146 B.C) representing affluent places like Timgad, Djemila, Tipaza or Carthage to name a few. The premises of modern cities were developed in this region (monetary system, aqua-pipes irrigation system, libraries, arts…etc) in addition to cultural and religious positions (figures like St Augustin, Apulée, Tertullien and s. Cyprien)(Le Bohec, 2005)

Beside the landscape, the local population acquired a reputation of 'Rebellious' or insurrectionary; people who never totally accepted what was imposed on them. (One may cite Berber figures like  Jugurtha, Takfarinas and even women leading-fighters like' Dihiya/El Kahina')('Dihya', 2017; Gross & McMurray, 1993). Basically, the population never accepted to be totally assimilated to any powerful 'new comer' be it Berber, Roman, Ottoman, French, Spanish or, at a different degree, Arab.

This mix makes the population's race classified as North African or Maghrebi on the ethnic side. But how about the language? Indisputably, the question is very complex to answer as this chapter is devoted to understand the linguistic situation of Algeria today with the main influences of French, Arabic and Berber. A brief historical background is outlined in addition to modern day speech in the 'era of technology'.

## 2.2 From North Africa to Algeria

The part of Africa called "the Maghreb" was first inhabited by the Berbers of whom we find the Touareg and Kabylians of today, who still speak a language called "Tamazight".

Long time ago, the Phoenicians (originated from Syria) have settled along the North African coast, as in Carthage near Tunis, and soon gained in power. This led them to be in war against Rome (148 B.C). From this time, the Roman empire invaded Africa not without any consequence as Millar explained " one area that Graeco-Roman culture remained the merest façade, for another that it completely obliterated a native culture (Millar, 1968).

The Romans first dominated Tunisia, and then went into the interior regions where they installed soldiers' camps in many places, in order to ensure security and obedience.(Wells, 1995)

During this period of relative peace, the Roman civilisation brought a real prosperity to the Maghreb; roads and aqueducts, thermal bathes and villas were built and whole towns were created like Timgad and Cherchell that the ruins still attest of their past existence.(Grimal & Woloch, 1983)

But the authority decreased by the fourth century and new incursions appeared in the area like the Vendals and the Byzantines followed by the Arab wave of "islamisation".

The Arabs were great conquerors from the Arabic peninsula; they first crossed North Africa (647) despite the resistance of the local people the Berbers, under the guidance of Oqba Ibn Nafa'a. Meanwhile, the Berbers shared the government of the Maghreb and had to fight during centuries against the second Arab settlement (11th B.C) of the Hilalis (Claudot-Hawad, 2007).

After the battles that followed, three big kingdoms appeared nearly at the same period: One in Tunis where the second crusade of St Louis stopped, the second in

Fes (Morocco) which was about to dominate the whole north of Africa, and the last in Tlemcen which was the centre of arts and civilisation in the middle age.

In addition to many places, the Ottomans followed their conquering expansion as stated below:

> "From the plains of Anatolia, the Ottomans rose to become a world empire, uniting the Middle East under their rule from the Balkans in the northwest to the Hijaz in the south, going as for in North Africa as Egypt, Libya, Tunisia and  Algeria. Much of the Middle East and North Africa was administrated by the Ottomans…"(M. J. Fazili, 2016)

This Turkish domination had a brutal ruling on the local population. Algiers, the residence of the Bey (the Turkish ruler) was the centre of piracy in the Mediterranean Sea. This maritime insecurity with the so-called offense of the French consul in Algiers (April, 1827) in addition to the bombing of a French vessel (August 1829) determined the French to invade Algiers in 1830.

The French conquest started in the West of Algiers, in Sidi-Ferruch precisely, despite the Turkish presence in Staouali, where the fort protecting Algiers was taken by force, corresponding with the collapse of Dey Hussein authority in the area.

During this period of restricted occupation (1830-1840) the French took possession of the ports. Emir Abd El Kader, a chief leader from Mascara (West of Algeria) named "the prince" by the population, rebelled against this occupation since the French did not stop in Algiers, but went into the interior regions as well where the invasion soon turned into a total occupation (from 1840).

> "The Arabs of the Tell(…) proved more resilient than the French had anticipated but in november 1832, on the Eghris Plain, the charismatic Abd-el-Kader was chosen by a group of tribal leaders to head a djihad (holy war) against the French." (Lorcin, 1995)

From an initial force of 18,000 men, the military presence in Algeria rose to 42,000 in 1837 and 108,000 in 1846.(Lorcin, 1995).

This period of total occupation has witnessed the fight against Abd El Kader followed by the occupation of the Kabylie (1857 and 1871), the one of the M'zab (1882) and of Touat in the South (1900). In 1881, Tunisia accepted to be a French protectorate followed by Morocco in 1912 (Shepard, 2008).

### 2.3. Socio-historical View of Languages in Algeria

Languages in contact due to oriental and occidental societies in contact have led to the emergence of some linguistic phenomena, which definitely characterise Algeria nowadays mainly: bilingualism and multilingualism. This is principally because of the invasions, colonisation and people's migrations which occurred in Algeria long time ago, a fact that makes Algeria's linguistic map very diverse,on which linguistic plurality is grounded, not similar to the neighbourhood countries as cited below .(Tabory & Tabory, 1987)

> […]The Algerian situation is complex, as it is at a crossroad of tensions between French, the colonial language, and Arabic, the new national language; Classical Arabic versus colloquial Algerian Arabic; and the various Berber dialects versus Arabic. The lessons from the Algerian situation may be usefully applied to analogous situations by states planning their linguistic, educational and cultural policies. (Tabory & Tabory, 1987: 64)

In daily situations, the speech of the Algerians is mainly in dialectal Arabic and/or Berber (which is also called Tamazight) as vernacular languages, particularly used in oral form, while classical Arabic/ Modern Standard Arabic stands as an official and national language. It is also characterised by some words in French or derived from French, due to the historical role that France played in Algeria.As

Salhi (2002) puts it forward "The linguistic landscape in this region [North Africa] is broad and involved, and the great complexity of the language situation is apparent".

This "mix" of languages makes up the typical way of speech used by the Algerian population. In fact, what is 'atypical' is an Algerian speaker who doesn't use any of the 'mix' in his/her speech, be it a foreign, borrowed or assimilated word from another language.

From all the peoples who got established in Algeria, the Arabo-Muslims are the ones who left the biggest mark in Algeria's history. United under the religion of Islam, the local inhabitants and the Arabo-Muslims spread Islam throughout the territory as well as the other side of the Mediterranean sea. The mix of Berbers and Arabs has led to a mixed language with all its varieties, and make up today the Maghreb dialect. In this sense, Aitsi Selmi (2002)sketches a general overview and rises interest by stating:

> Despite the numerous Arabisation laws introduced with the aim of imposing Arabic as the sole national language, Algeria is still a multilingual country where at least three languages are in competition ... The first language is Berber or Tamazight, which is the language of the indigenous people of NorthAfrica. Although this language is mentioned in none of the country's constitutions, it has succeeded in achieving a certain degree of official recognition as a result of social pressure – including strikes, riots and demonstrations – from the Tamazight-speaking populations.

He then continues by saying :

> The second language is Arabic, a diglossic language whose High variety has been declared constitutionally the national and official language of the country. The Low variety is viewed as a degraded form of pure Arabic and therefore has no official status. Like Tamazight, it is classed in the derogatory category 'dialect'. The objective of all governmental linguistic laws has been to eliminate all dialects and replace them with High Arabic. The third language is French, which is the country's linguistic inheritance from the colonial period (Aitsi Selmi, 2002).

Thus, the process of "Arabisation" (transforming into Arabic) occured at the same time as "Islamisation".In this context Jean Despois (1958) states that among all the foreign influences in North Africa until the arrival of the French in the 19th century, it is Islam and the muslim civilisation which have the most profoundly left their print in society.

From 1830, Algeria became a French colony and the French language was imposed throughout Algeria despite the presence of the so-called indigenous languages: dialectal Arabic, Berber and Classical Arabic. The colonial ruling had a severe policy of acculturation, based on obscurantism and ignorance which rather targeted the denial of the Berber and Arabo-Muslim identity and cultures (Taleb Ibrahimi, 1995), even if the French government at the time of 'La Troisième République', i.e., the Third Republic, changed its way into a new policy which would enable the Algerians to get instructed (Ageron,1968:319).

Whatever the political position, the French language has dominated the area during all the colonial period, as an official language.(Benrabah, 2005)

After the Algerian independence in 1962, the Algerian authorities wanted to re-shape the linguistic map of the country. Arabisation was a linguistic and political process which made classical Arabic become a national and official language(Grandguillaume, 1983:12).

This process targeted a hegemonic status of the Arabic language within the Algerian society, while at the same time trying to keep what has been inherited from the colonisation; the French language had a status of foreign and privileged language. Despite this political decision, it was impossible to deny the role of the French language in the socio-economic sphere, since it was a language used by a lot of Algerians. (Grandguillaume, 2002:147).

In fact, the debate over the Arabisation policy has always been put in the front line as a traumatism provoked by the political decisions which wanted the Arabic language to become a symbol of national sovereignty (Benrabah, 2005). In this respect, Aziza Boucherit (2006 :65) writes :

> From the independence day of Algeria to nowadays, the Arabic language has been considered as an expression of sovereignty, identity and unity of the nation. Forty years later, the linguistic and cultural differences should not be considered as factors of disunion anymore, but factors of gathering in a state where the Arabic and Berber components would coexist and the nation would assume its colonial past including the negative and dark aspects, but also the positive. In this respect, the language could be seen as a means of opening to the world. (Translation mine)[10]

However, in reality the linguistic situation of Algeria is quite different, in most of the cases, daily life interactions are in dialectal Arabic, Berber and French.

Thus, the linguistic conflicts are due to misunderstandings between the local population and the politician decision-makers as there is a school policy, and a dominant ideology in society, as far as languages are concerned. Investigations in the area have proved that there hasn't been a real linguistic policy, based on scientific research and scholar studies, but it was only political achievements made in order to implement Arabisation and spread Arabic language as proposed by the

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[10]De l'indépendance de l'Algérie à nos jours, la langue arabe a été considérée comme l'"expression de la souveraineté, de l'"identité et de l'"unité de la nation. Quarante ans après l'"indépendance, les différences linguistiques et culturelles devraient pouvoir êtreconsidérées non comme des facteurs de désunion mais de rassemblement dans le cadre d'un état où coexisteraient les composantes arabes et berbères de la nation et où se verraitassumer le passé colonial sous tous ses aspects, négatifs et douloureux, mais aussi positif et, en ce sens, la langue pourrait être vue comme un moyen d'ouverture au monde.

arabophone sphere in the country, as a conformist attitude of the pro-Arabic decision makers.(Miliani, 2003).

The political decisions were not congruent with the people's expectations. Likewise, these decisions were part of a political framework which arose at the end of the sixties, where the aim was to"nationalise".

Moreover, the objective expected by the people was to get rid of poverty and the daily social constraints left by the harsh policy of the coloniser. Thus, the French language is still taught and used in daily interactions of the Algerians. Even if considered as "foreign" language, French is meanwhile the language of science and technology in school institutions as well as universities (Medical studies, technology…etc).

Despite the numerous changes that took place at the level of the school system since 1970's, French is still the privileged language of a part of the Algerian population, at a greatest extent in the capital city, and little by little it has been admitted as a tool to enhance the social status, as it is used not only in daily life and real situations, but also in socio-professional situations and family life interactions.

## 2.4.A Brief Overview of Languages in Contact in Algeria

A close attention to the language used in daily situation by the Algerians, is mainly composed of Arabic and French words, this is the first thing that foreigners notice when being talked to in Algeria, while words from French language are not only inserted in the sentences produced by the Algerians, but also adapted and assimilated lexically, phonologically and grammatically.

Many of these words are 'borrowings' which have been added to the Algerian dialect. One may cite words like /fali:zæ/ derived from the French word "valise" meaning a suitcase, or verbs like /nəprɛpa:rɛ/ adapted from the French word "preparer" i.e to prepare .

As this study investigates the language of Algerians online, an overview of the linguistic situation of the country is necessary although differences exist from one city to another.

This part sheds light on some linguistic phenomena specific to the country as multilingualism, bilingualism, code switching, code mixing and borrowing.

## 2.4.1 Multilingualism

Multilingualism is a complex process which has received particular interest by researchers and thus has numerous definitions that do not 'fit' every multilingual country.

De Angelis & Selinker (2001)state that : "Technically, a speaker of three languages (one native and two non-native languages) may potentially mix the components of all his/her language systems, and is faced with the task of keeping his/her languages apart in production"(Cenoz, Hufeisen, & Jessner, 2001)

This approach is rather neuro-linguistic exploring the relationship between inter-language and language transfer.

A novel one (Blommaert, Collins, & Slembrouck, 2005) critises existing accounts of both linguistic and communicative competence by arguing that:

> " multilingualism is not what individuals have and don't have, but what the environment, as structured determinations and interactional emergence, enables and disables. Consequently, multilingualism often occurs as truncated competence, which depending on scalar judgments may be declared 'valued assets' or dismissed as 'having no language'.

Surprisingly, early researches classified multilingualism even as a 'disorder' or a 'derivative fact' as reported by Auer & Wei (2007)

> Multilingualism was considered to be the consequence of some kind of disturbance in 'the language order', such as migration or conquest, which

brought language systems into some kind of unexpected and 'unnatural' contact with one another, often leading to structural simplification (which, in the language ideology of the 19th century, usually implied degeneration.) (p.2)

Interested in the ability to speak and understand several languages, Diamond (2010) was fascinated in his investigation of New Guinea highlanders who were able to converse simultaneously in several local languages, while it turned out that everyone could speak at least 5 languages, a man spoke 15 languages in this small-scale traditional society. The conclusions of his scientific study on the cognitive effect of multilingualism reported that "*children raised bilingually develop a specific type of cognitive benefit during infancy, and that bilingualism offers some protection against symptoms of Alzheimer's dementia in old people*".

In the linguistic literature, multilingualism and bilingualism have been used interchangeably to refer to the use/knowledge of more than one language by an individual or a community. Therefore two types are to be distinguished: individual and societal multilingualism.

Individual multilingualism is concerned with the acquisition of two or more languages, how they are comprehended and represented in the mind for speaking and writing. Societal one, however, is concerned with "…*its institutional dimensions, that is, with issues such as the status and roles of the languages in a given society, attitudes toward languages, determinants of language choice, the symbolic and practical uses of the languages, and the correlations between language use and social factors such as ethnicity, religion, and class*" (Sridhar, 1996:47)

On the social use of language, the relationship between language and society is emphasised according to the meaning, the context or other societal factors(C. A. Ferguson, 1959b; J. A. Fishman, 1972; John Joseph Gumperz, 1971; M. a. K. Halliday, 1973; D. Hymes, 1974).

In Algeria, people alternate between Arabic, French and Berber at different degrees. Hence, two forms of Arabic co-exist but not all Algerians speak Tamazight (Berber) nor do they master French entirely, MSA is prevailing but not everyone would use it depending on the situation, however all of them speak Algerian Arabic (the local dialect). This goes with the framework of Wardhaugh who states that "*People who are bilingual or multilingual do not necessary have exactly the same abilities in the languages (or varieties); in fact that kind of parity may be exceptional.*" (Wardhaug, 2006).

### 2.4.2 Bilingualism

From all the invasions and colonisations that occurred in Algeria, the French occupation is certainly the one which mostly marked the Algerian speech due to its long time stay in the area (1830-1962). When two genetically distinct languages are in contact with each other ; French from a Latin origin and Arabic from a Semitic one(not to mention the Berber language already spoken in Algeria), the result is sometimes a linguistic phenomenon labelled as 'bilingualism'.

A simple definition of bilingualism is the ability of people to use two languages. But this definition is somehow problematic since some scholars insist on the proficiency of both languages, while others accept this term for persons whose knowledge of the second language is minimal and can only understand it and not speak it very well.

In all cases, Algeria is considered as bilingual if not also multilingual, and as this study concerns Algerian speech online, it is unavoidable to explore some of the characteristics related to this phenomenon, such as diglossia, code-switching, code-mixing…etc.

This linguistic phenomenon has been the appeal of many researchers in different topic areas whether anthropology, psychology, neuro-sciences or linguistics to name a few.

Weinreich (1953) made a distinction between the compound, coordinate, and subordinate bilingual. According to him:

- **Coordinate bilinguals** have two languages owing their own systems separate from each.
- **Compound bilinguals** have one set of meaning units and two modes of expression (corresponding words in two languages have the same meaning)
- **Subordinate bilinguals** have linguistic codes of the second language interpreted through the first language.

In contrast, Grosjean (1994) criticises this theory stating that  "no amount of experimentation has brought conclusive evidence that bilinguals can be classified as coordinate, compound or subordinate." This gives an idea about the current dissensus over defining the term 'bilingualism' for different researchers. Beardsmore (1982) for example lists thirty types of bilingualism while Hamers relates it to variables like : relative competence, cognitive organisation, age of acquisition, exogeneity, socio-cultural status and cultural identity (Hamers & Blanc, 2000).

Hoffman (1991) distinguished between a minimalist stance for the term related to Haugen and a maximalist one by Bloomfield. The former (Haugen, 1953) defines it as "the point where the speaker of one language can produce complete meaningful utterances in the other language" while the latter (Bloomfield, 1933):55-56) favoured the strict condition of "native-like control of two languages".

Another satisfactory definition of bilingualism is reported by Barnes Lawrie (1999) as *Individual* and *Societal* Bilingualism(It is also referred to as Bilinguality and bilingualism).

Barnes relates the taxonomy to Pohl (1965) who made it in three categories: Horizontal, Vertical and Diagonal bilingualism. Horizontal exists where two

genetically unrelated languages have the same official (and even cultural) status in a given speech community.

Vertical bilingualism occurs when a standard language coexists with a distinct but genetically related dialect, whereas Diagonal bilingualism happens if speech communities use a non-standard language with a non-related standard language side by side.

In Algeria, Miliani (2001) considers bilingualism as the fact of using in every day speech , consciously or unconsciously, two languages alternately with a certain degree of ability in both languages, this ability can be active or passive. The former is when the speakers understand, speak, write and read both languages and the latter when both languages are understood but with a prevailing one better mastered.

Actually, bilingualism is practiced in Algeria at different degrees between the following languages as in the figure below:
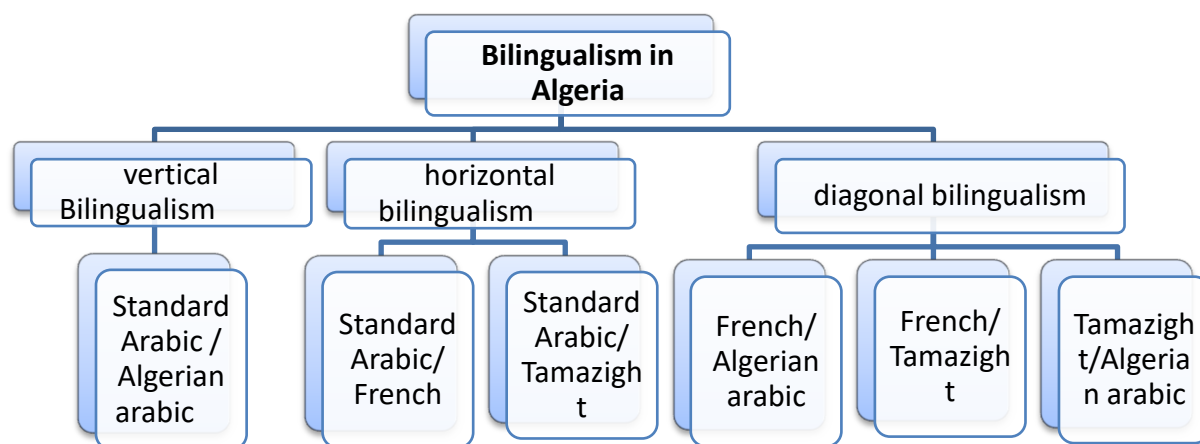
**Figure 9: categories of Bilingualism in Algeria following the model of Pohl (1965)**

To illustrate more closely these categories, Denande (2007) worked out a sample anonymous oral questionnaire in different settings (cafés, workplace, neighbourhood, relatives) for different age categories of Algerian subjects (both genders) and the results were as follows:

- Older respondents (over 65 years old) with no formal instruction in any of the two languages usually listen to the news in Arabic, and out of necessity, they have learned to 'cope' with MSA, to know about current events.

- Less old informants (45 to 65) with a good, or relatively good, level of instruction in French, but also in Standard Arabic, or at least a long-term exposition to both languages, listen to the news in both languages which they claim they understand well, though some respondents prefer Arabic to French and others the other way round.

- Middle-aged informants (30 to 45) react to the questions practically the same way as those above, though most of them had their schooling in Arabic. This shows the extent to which French persists in the society, and the overall positive attitude that people display towards that language.

- Young adults (20 to 35), too, understand French though to different extents according to the individual's proficiency, his or her motivation and attitude towards the language as opposed to MSA of which, in principle, they have a better command from the perception angle.

(Dendane, 2007)

## 2.4.3 Diglossia

Described as a relatively stable situation, *diglossia* refers to the use by a language community of two languages or dialects: the first is the community's present day vernacular; the second may be an ancient version of the same language (e.g.Arabic) or a completely different language, such as Arabic and French in

Algeria. The term "diglossia" was first introduced by Ferguson in 1959 in his article called "Diglossia".

> [A] relatively stable language situation in which, in addition to the primary dialects (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any sector of the community for ordinary conversation" (Ferguson 1971: 16)

The Arabic-speaking world in general has two distinct but genetically related languages, sufficiently different for ordinary people to call them separate varieties of the same language, one is used only in formal situations while the other is informal and is used in everyday conversations. The former variety is usually called "High" ("H" for short) or simply "standard" and the latter "Low" ("L" for short) or simply "vernacular". That is, the H variety is given great prestige by all Arab speakers (even those who do not speak it or understand it) because of its inherited status from Classical Arabic (the Arabic is the language of Quran), while the L variety does not have this prestige.

According to Harris & Hodges (1981) the term diglossia is used to refer to 'the presence of a high and low style or standard in a language, one for formal use in writing and some speech situations and one for colloquial use' (p. 88).

The High variey which is often linked to high status and/or prestige is used depending on domains as Hoffman (1991) lists some: the school, church, neighborhood, home, and workplace. Romaine (2006) also emphasised the notion of domains where the H variety is spoken distinctly from the L one whether with family, friends, religion, employment or education. She stresses that it is important

to maintain those domains in relation to language use in order to maintain bilingualism in a community, as she notes:

> There is an almost one-to-one relationship between language choice and social context, so that each variety can be seen as having a distinct place or function within the local speech repertoire. Where such compartmentalization of language use occurs, norms of code selection tend to be relatively stable. Although speakers in diglossic situations must know more than one code, only one code is usually employed at any one time (Romaine, 1989).

According to  Lavender (2017), "In situations of diglossia the culture or community largely determines the roles for each language and in which contexts should be used". However, in situations where diglossia is not firmly established or is less firmly established there are a number of factors, which influence language selection. He puts forward the classification of Grosjean (Grosjean, 1982) of his famous book entitled 'life in two Languages' as follows:

| **PARTICIPANTS** | **SITUATION** |
|:---:|:---:|
| Language proficiency | Location/setting |
| Language preference | Presence of monolinguals |
| Socioeconomic status | Degree of formality |
| Age | Degree of intimacy |
| Sex | |
| Occupation | Content of discourse |
| Education | Topic |
| Ethnic background | Type of vocabulary |

| History of speakers' | Function of interaction |
|---|---|
| Linguistic interaction | |
| Kinship relation | To raise status |
| Intimacy | To create social distance |
| Power relation | To exclude someone |
| Attitude toward languages | To request or command |
| Outside pressure | |
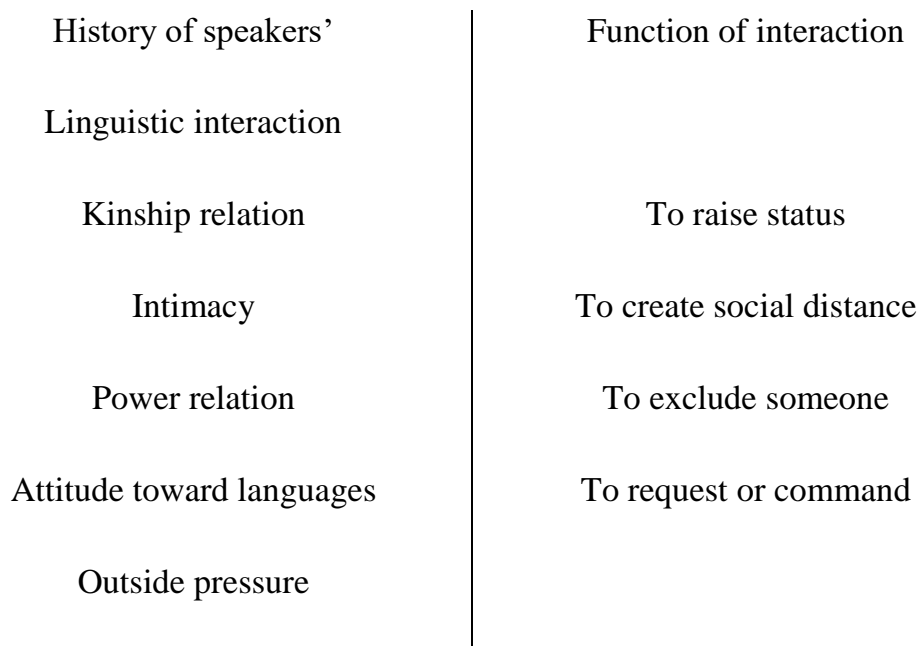
**Figure 1**. Factors influencing language choice (Grosjean 1982: 136)

The above figure illustrates Grosjean's idea that the interlocutor may choose the most  effective language code to interact with according to the context (a polite request would be different than arguing with a person), but also depending on the gender, occupation, power relation..etc.

The Low varieties of Arabic are described as 'colloquial Arabic' by Ferguson (Ferguson, 1991) who states that a gap exists between the H and L variety at many levels: phonetic, phonological, morphological, lexical and syntactic.

Dendane (1993) gave a more detailed illustration as adapted from Fezzioui (2012):

a. Phonetic:

  • Replacement of the Cl.Ar interdentals / ð,  θ /by the dentals /d, t / in many varieties mainly in urban ones like in:

| [ðahab] | [dhab] | (gold) |
|---|---|---|
| [θu:m] | [tu:m] | (garlic) |

- Realisation of the phoneme /q/either as voiced velar /g/ in rural dialects or as a voiceless /q,?,k/ in other varieties:

| Cl Ar | AA |
|---|---|
| [qalb] | [galb]  [?alb], [kalb]          (heart) |

b.  Phonological

This concerns vowel reduction processes in Arabic modern dialects:

- Vowel elision resulting in many consonant clusters with cases of assimilation as in:

| Cl Ar | AA |
|---|---|
| [rasama] | [rsam] 'he drew' (past form) |
| [sami3a] | [sma3] 'he heard' |

- Vowel centralisation as in:

c.  Morphological:

- The dropping of the dual verb form suffixes or 'bare form' as named by Owens (Owens, 2005)means that the same way of conjugation is applied equally to two or more persons, as in:

  [iktuba:]                    [ketbu:]        (write!)

d.  Lexical:

- Transformation: reflects variation in the form, the use, and the meaning (C. A. Ferguson, 1959b) as in [mʃa] which means 'he went' in AA, the verb [mæʃa] in Cl.Ar means 'he walked', and [ðahaba] which means 'he

went' does not exist in L variety, [ðhəb] in some rural dialects as one of the dialects in Bechar meaning 'get out'.

e. Syntactic

- Dropping of case and mood endings (Dendane, 1993) (i3ra:b) for instance [ʔiʃtarajtu: kita:ban ʒadidan] 'I bought a new book' is said in the L variety

  [ʃrit ktab ʒdid] . The mood ending changes in Cl. Ar in the example [hada kitabun ʒadidun] 'this is a new book' but in AA it is stays as [hada ktab ʒdid].

## 2.4.4 Code- switching

People who speak more than one language or variety choose between them according to the situation they are in. Speakers, in general, choose a language that the participant can understand. In bilingual communities the choice of language depends on the circumstances and this choice is always controlled by social rules which members of the community learn from their experience and which become part of their total linguistic knowledge.

Code Switching (CS) is used in order to achieve two goals: (a) Fill a linguistic/conceptual goal, or (b) for other multiple communicative purposes (Gysels, 1992). Also, in any bilingual/multilingual country where it is used, it is always associated with a 'value judgment' or more specifically 'attitude'.

Duran (1994) puts forward three major works :

- Language attitudes towards code switching between Cantonese and English in Hong Kong area. It was found that Chinese use English to give

an impression of high status and Westernisation Vs humility and solidarity when conversing in Cantonese. (Gibbons, 1983).

- In Tunisia, similar attitudes where recorded in the work of Stevens (1983) where Ambivalence is discernible in the attitudes of Tunisians towards the three speech varieties (French, Classical Arabic, Tunisian Arabic) of their country. Classical Arabic is esteemed as a symbol of authenticity and Arab unity and for its religious significance. At the same time, it is perceived as the antithesis of modernism and felt to be deficient. Tunisian Arabic is overtly condemned while covertly serving as the real prestige language of the country. French is esteemed for its connotations of modernism but perceived as a threat to national unity.

- For a perfectly balanced bilingual who mastered both English and Punjabi, reactions of a group of  listeners were evaluated when this speaker code switched, and was  criticised as less fluent, less intelligent and less expressive than when he used only Punjabi or only English (Chana & Romaine, 1984).

If early linguists who studied the CS phenomenon reported its use as a deficient knowledge of language and a grammarless mixture of two codes to be stigmatised (Bloomfield, 1933; Espinosa, 1917), Gumperz ( 1982) described it as an additional resource through which a range of social and rethorical meanings are expressed. In line with Fishman(1981) who examines this in terms of the influence of situational factors like topic, participants and setting.

Gumperz (1982) defines CS as "The juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems."

Hence, two intersecting but separate distinctions are drawn from the work of Lüdi

(2006) as reported in Milroy and Muysken (1995) (a) 'Exolingual interaction' where speakers of different languages interact; 'endolingual interaction' involving

speakers with the same language background and (b) between 'unilingual' and 'bilingual' interaction. This combination results in four types of interaction:

| Exolingual bilingual | Exolingual unilingual |
|---|---|
| Interactants with different languages | Native and non-native speakers in one language |

| Endolingual bilingual | Endolingual unilingual |
|---|---|
| Among bilinguals | Among monolinguals |

**Figure 10: definition of Lüdi's ( 2006) Code Switching from (L. Milroy & Muysken, 1995)**

Studies of child bilingual language acquisition(McClure, 1981; Zentella, 1981) and adult bilingualism (Pfaff, 1979; Poplack, 2001) consistently have shown that frequent 'intrasentential code-switching' is associated with high bilingual ability, whereas use of 'intersentential switching' is associated with non-fluency or dominance in one language over the other. These findings, in turn, have led some scholars (Poplack 1980, 1981) to the conclusion that the ability to code-switch intrasententially may be used as a measure of bilingual competence as reported by Berk-Seligson (1986).

Interestingly, Poplack (1980) also refers to 'constrains' associated with Code Switching by stating that:

> "Code-switches will tend to occur at points in discourse where juxtaposition of L, and L2 elements does not violate a syntactic rule of either language, i.e., at points around which the surface structures of the two languages map onto each other. According to this simple constraint, a switch is inhibited from occurring within a constitutent generated by a rule from one language which is not shared by the other."

In literature, linguists refer to three types of CS mainly (Kadem, 2015; Poplack, 2001):

(a)     Inter-sentential CS:which occurs at sentence or clause boundary ,i.e., the speaker switches from a language to another either between sentences or phrases or clauses. That is, in a given conversation, one sentence will be uttered in a language (or variety of a language) and the other sentence in a different language ( or different variety of a language).

(b)     Intra-sentential CS: occurs within sentences or clause boundary where the speaker switches from one language to another within he same sentence or clause.

(c)     Extra-sentential CS: the use of a tag, discourse marker, or a conversation marker in a language different from the language of the sentence into which it is inserted.

To best illustrate the complexity of CS in spontaneous speech, the following excerpts are from the work of Dendane (2007) which still fits today's daily language of Algerians. They were recorded without the speakers being aware:

(10) bəṣṣaħ dərwaʔ əl *procédé* tbəddəl. *C'est vrai.* taʕrəf *ce qui a changé, c'est que* had *l'informatisation* kæjən *problème*. dərwaʔ kullʃi jədχul lə*llogiciel, première correction, deuxième correction, troisième correction* fə*llogiciel*

(But now the process has changed…It's true, you know what has changed is that (with) this computerization there is a problem. Now, everything is entered into the software programme: first correction, second correction, third correction… into the programme…)

(11) wziːd ki tədχul *la deuxième correction* ˤada əl*logiciel* j*comparaît. Ce qui est rapide c'est que* l*logiciel* jkompare məmbaˤd jχərrədʒ lək *la liste* taˤ *les jurys* əlli jfəwwtu f*la troisième correction ; ça prend soi-disant un peu de temps.*

(And then, it's only when the 2nd correction gets in that the software compares. What is rapid is that the computer compares. Then, it provides you with the list of the juries for the 3rd correction. It takes time, so to say.)

**Figure 11: Instances of Code Switching/ Code Mixing in Algeria recorded by Dendane (2007:145)**

## 2.4.5 Code-mixing

There are other cases, however, where a bilingual speaker talks to another bilingual and changes language without any change at all in the situation. This type of change is called *'code-mixing'* or *'conversational code-switching'* as some people prefer to call it. It is "*a kind of linguistic cocktail – a few words of some language, then a few words of the other, then back to the first for a few more words and so on*" (Hudson, 1996). The following is a good example of conversational code-switching within a single sentence taken from a speech by an Algerian bilingual:

Révise la leçon نْشاشَ ما و ةيلاَّتلاles exposés /rɛviːz læ ləsõ ə'tˢæljæ wma tˢənsæʃ le zəkspɔːze/ meaning 'revise the last lesson and don't forget the research papers'.

**Figure 12: Example of code-mixing as reported by Meziane ( 2010)**

This sentence has been produced without any constraint by two students from Tlemcen University. It has been reported word for word as it was heard, i.e, a mix

between the Algerian dialect and French language, a typical of the way Algerians speak.

Code Switching and Code Mixing (CM) are natural phenomena extremely common in any bilingual/multilingual speech community and have been used interchangeably by many linguists but for the sake of clarity a proper definition of CM will be outlined here.

In literature, Weinreich (1953) was the first to note the distinction followed by others who were interested in the significance of these phenomena in the mid sixties (Diebold, 1963; Macnamara, 1967) sometimes assimilated to another concept *Borrowing*. For Sridhar and Sridhar (1980) Code Mixing is the embedding or mixture of various linguistic unites, i.e., affixes, words, phrases, and clauses from two distinct grammatical systems or subsystems within the same sentence and the same speech situation. In other words, they made a contrast between CS and CM at the structural level in the 'locus' of the switched elements since they define CS as the embedding or mixing of words, phrases, and sentences from two codes within the same speech event and across sentence boundaries.

The interest in Afro-European languages in contact targeting CM started in the seventies (Bokamba, 1982; Mkilifi, 1972; Scotton & Ury, 1977) and still goes on nowadays.

From one hand, Bokamba (1988) notes that the behaviour of code mixers and code switchers for bilingual/multilingual speakers suggests that their *linguistic competence* is essentially extensional to that of the bi and multi-dialectal speaker. He extends this definition by involving the grammatical side as follows:

> "[…the linguistic competence of the multilingual can be viewed as consisting minimally of two separate and distinct grammatical systems in the usual sense. The speaker has complete access to both grammars during any speech event, and can access them sequentially or simultaneously. That is, when there is no interaction between the

languages, the speaker produces monolingual speech; and when there is interaction between them as a result of simultaneous access triggered by the context Of the situation, the speaker produces code-mixed speech".

(Bokamba, 1988:50)

On the other hand, Bokamba (1988) explores the psycholinguistic aspect too for a multilingual speaker when formulating a code mixed sentence. According to him, this CM construction obeys (at least) to the following six ordered steps:

a. determination of the D-structure in the host language
b. selection and insertion of the appropriate lexical elements
c. application of the lexical morphology and phonology rules, if any
d. comparison of the syntactic structure of the guest language with that of the host language for congruence (specific to code-mixing)
e. application of the relevant local adjustment syntactic rules (specific to code-mixing)
f. application of the relevant host or guest language T-rules to the appropriate clause specified by that grammar (specific to code-mixing).

Singh (1985) uses 'intrasentential CS' to define CM in any diglossic speech community whereas Trudgill (2003) defines CM as :

"The process whereby speakers indulge in code-switching between languages of such rapidity and density, even within sentences and phrases, that it is not really possible to say at any given time which language they are speaking" (p.23)

In another discipline, Bandia (1996), investigates the case of African writers who integrate CS and CM in novel writing as a strategy to embellish their work, be closer to the western world and gain in international audience. CS and CM are used

to signal social and/or discourse meaning to express functions in a social interaction and some community-specific ways of communicating. He notes that

> "*African writers employ various writing techniques to capture and convey the various facets of African life. A characteristic feature of African creative writing is the use of code-switching (CS) and code-mixing (CM) as a writing technique. CS and CM have a social, discursive and referential significance in a text*".(Bandia, 1996)

### 2.4.6 Borrowing

Although the term is sometimes confused with 'language interference' and 'language transfer', borrowing should be defined for matters of clarity. One definition often found in recent literature states that borrowing is " the incorporation of foreign features into a group's native language by speakers of that language" (Jasanoff, Thomason, & Kaufman, 1988) quoted in Hickey (2010).

Also, it is often stated that borrowing is a psycholinguistic processus where the speaker integrates elements from a foreign language and adopts them in a quasi-habitual matter in the everyday speech and/or mother tongue, with a great deal of attention to Lexical Borrowing.

According to Haugen (1950, 1953), lexical borrowing encompasses three categories; loanwords, loans meanings and creations. For Weinreich (1953), they are considered as an unavoidable process when languages are in contact and when cultures are in contact as well. This is not proper to Algeria only, but to many other countries with a predominance for English since it quickly became the language of globalisation. Examples are abundant , one may cite the use of English in mediated communication and loan words from that language in the Internet, to name a few.

For Hockett (Hockett, 1958), a speaker who knows more than a language has lot of options to express itself which are; Loanwords, Loanshifts, Loan-translation and Loan Blend.

A. Loanword: It occurs when the speaker adopts an idea with its source language, i.e.the original grammar is untouched with nouns taking plural and/or possessive forms of the new language, while verbs and adjectives receiving native morphemes.(Hoffer, 2005)

B. Loanshifts: are the inclusions of new words from a different language but with a new meaning (different from the original one)

C. Loan-translation (Calque): A loan translation is a compound that shows an entire native substitution. For example the original word when adopted has been translated losing the original meaning. This is frequent in glossaries of technology, for instance Mouse in a computer which is different from the animal mouse.

D. Loan-blend: when one element is from the native language and the other element is from another language, this is called Loan-blend. Hoffer (2005) gives the example of 'Priesthood' (in old English *preosthad*) which is a combination of *preost* (priest) in addition to the native element *had* (hood).


## 2.5 Part II: Language Planning in Algeria


## 2.5.1 Introduction to The Language Profile of Algeria

With Arabic as the language of the state and administration but not the native tongue of the population because of the diglossic situation, Algeria's case is complex. While the colloquial local form 'Algerian Arabic' (AA) has almost no official place in the state, French is understood and spoken by a part of the population, while sometimes viewed negatively because it reminds of the harsh colonising conditions that this language pertains. It is sometimes viewed positively because it is the language of science, instruction and emancipation that allowed many locals to be accepted as intellectuals inside and especially outside of the country, although this opinion is not shared by everyone . Meanwhile, another language exists Berber or Tamazight , native language of a fringe of the population,

which also carries a strong identity and cultural symbol for many Algerians. This goes with the popular adage of the famous sociolinguist Weinreich originally presented as a speech on 5 January 1945 at the annual YIVO conference (M. Weinreich, 1945)who stated that : "*A language is a dialect with an army and a navy*"pointing to the political, power and identity necessities which surround a language.

This 'complex' situation is sometimes the cause of internal conflicts having language as a pretense in order to invoke identity, cultural, ethnic or religious matters. A mere example is asking Algerians if they are Arabs; while some would definitely say so, others would say no , we are Berbers. This is not erroneous depending on the ethnic origin of all the north of Africa while it is not completely true since no race is 'pure' and the locals married Arabs ages ago.

Side by side with the ethnic belonging, the religious question plays an important role since even Berbers who do not speak a word in Arabic would say we are Arabs, but in this case in reference to Islam since the language of the Quran is Arabic and the majority of the population is Muslim. Therefore, saying 'am not Arab' is sometimes a claim that the person 'is not Muslim' which is absolutely wrong.

This case has given birth to internal upheavals behind political parties pushing the population to claim autonomy from the state and the officialisation of Tamazight as their language, like the case of Berbers. In 2001, the Kabylian region witnessed what they named 'the black spring' in reference to violent strikes between the locals and the police force resulting in many deaths, injuries, altercations and arbitrary detentions. ('La révolte du "Printemps noir", ou l'histoire d'un gâchis', 2016)

To satisfy identity matters, the language is being taught in all the schools as claimed in 2018, the ministry of Education, Mrs N.Benghebrit. To satisfy cultural matters shared by all the population, the president (ndlr. Abd El Aziz Bouteflika) proclaimed the 12th of January as a national holiday commemorating Yennayer (the Berber New Year), on December 27th, 2017.

The following part will be about the status and the place of the local languages spoken in the country, be they official or not, namely: Classical Arabic, Modern Standard Arabic, French and Tamazight.

## 2.5.2 Existing Varieties in Algeria

## 2.5.2.1. Introduction

In Brief, the linguistic situation of Algeria comprises Classical Arabic (CA), Modern standard Arabic (MSA), Tamazight and French.

Before dealing with the varieties, a basic question would be 'Where is Arabic spoken'? The geographical answer is that Arabic is the sole or joint official language in twenty two independent Middle Eastern and African States, namely: Algeria, Morocco, Mauritania, Tunisia, Libya, Egypt, Sudan, Djibouti, Somalia, Saudi Arabic, Kuwait, Bahrain, Qatar, the united Arab Emirates, Oman, Yemen, Jordan, Syria, Iraq, and Lebanon. It is the native language of Israel's Arab citizens and of the Palestinians who live in the occupied West Bank and Gaza. Since the mid 19th century, there have been large communities of Arabic speakers in other regions like the United States with 3.7 million [11] (Khamis-Dakwar et al., 2012) and approximately 6 million in Europe.[12]

Arabic is also the language of the Islam's holy book 'the Quran', and as such of the religion and constitutes a strong bond of all muslims regardless of their ethnic origin. Since 1974, Arabic has been an official language of the United Nations and was accorded  the same status as that already enjoyed by Chinese, Russian and Spanish('History of the Arabic language at UNESCO | United Nations Educational, Scientific and Cultural Organization', 2018). While recent estimates put the total number of native speakers of Arabic at about 230 million.(vistawide.com, n.d.)

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[11]The Census Bureau estimates that at least 1.9 million Americans are of Arab descent; AAIF estimates that the number is closer to 3.7 million retrieved from http://www.aaiusa.org/demographics

[12]Intra-Regional Labour Mobility in the Arab World, Facts and Figures (PDF), International Organization for Migration, 2010, retrieved 2010-07-21

What is special in the Arabic world, is that even cities like Algiers and Oman do not share a lot of their Arabic speech and would have difficulty to understand each other at first glance, they would manage to communicate effectively and would both assume that they speak the same language and are both Arabs, as stated by Holes (Holes, 2004) while saying:

> In the Arabic-speaking world, …, we have the phenomenon of considerable objective linguistic diversity [13] that can on occasion definitely hamper effective communication, allied to the homespun view that *kulluh 'arabi:y*—"It's all Arabic".

## 2.5.2.2 E-Arabic

Although Arabic has existed before the birth of Islam (existence of a huge body of Pre-Islamic literature), Arabic is  associated with a holy position since the language of the Quran in Islam is Arabic. Centuries ago, people could not admit others talking in colloquial Arabic (also known as *Darij*a or *el A'ammiya*) nor using this system in writing and encouraged others to use it even in daily conversations. While some view this as a necessity to maintain the sacredness of the language, others thought that this would lessen and diminish from its position since this sacred language should not be used in the market or low situations like addressing animals…etc. (Al-Jabiri, 1991).

For instance, Haeri (2003) reports that in Egypt, people feel that they are custodians of Standard Arabic (SA) rather than owners of it, while other linguists report that "*the greatest need is to dismantle and rebuild Arabic, precisely because it is the bearer of a 'rich intellectual and literary tradition' rooted in the golden age of Islam*"(Abu Rabi', 2004).

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[13]Holes, 2004 adds a footnote :according to Cadora (1979:32), Syro-Lebanese and Casablancan Arabic share only 68 percent of their base vocabulary—less than 70 percent that Swadesh's work indicates is roughly the point at which two dialects can be considered forms of the same language.

In this era of globalisation, information and communication technologies are proliferating in every domain bringing emerging, new and hybrid forms of communicating with each other.

In the Algerian webosphere, Arabic is used side by side with other languages as well. This e-arabic has brought new dynamics to the language and is found in different domains from politics and education to entertainment and sport.

The figure below is a common example of new forms used in a facebook group of Algerians. This one illustrates an Algerian figure in comedy (Athmane Ariouet) with an American actor, while the Algerian uses a mix of Arabic and English to show power and strength replying that he can handle not only the truth but many other things as well. Obviously, an Algerian speaker will find it funny but an Arabic speaker may have difficulty understanding it.



**Figure 13: Example of e-arabc used in Algeria.**

This example is what John Swales refers to as "discourse community"(1990) where groups of internet users communicate with each other sharing linguistic norms and/or typical phonological, lexical, morphological and syntactic patterns.

On the Algerian ground, other studies are dealing with e-arabic like the one of Guellil et.al (2017)[14] who worked on the Algerian dialect in social media, with an analysis of 18602 comments from an Algerian Facebook page,   they found expressions like  "مليحةعفسة"   عفسة مليحة   which means "a good thing" or "Mandirwalou", which means "I will donothing". They observed that these two commentaries are written in two different Alphabets, the first one in Arabic script, whereas the second one in Latin.

## 2.5.2.3 Modern Standard Arabic

## 2.5.2.3.1 Classic Arabic (CA) and its Relationship with Quran

Considered as the epicenter of the Islamic world, Mecca (Saudi Arabia) has for 14 centuries been the target and aspiration of Muslim pilgrims resulting in interdialectal contact between different Arab populations. But with the rise of technology (CMC), economic developments and expatriates, this scale and variety of types of interdialectal contact has become much larger leading them to cope with each others' language, just as centuries ago, Arab Muslim have had some degree of exposure to the common language of the Islamic faith and religion; Classical Arabic.

As the language of the revealed literal words of God through the holy book Quran, Classical Arabic is viewed as a permanent linguistic phenomenon fixed for all time. For most Arab children, it is different from their mother tongue but strongly holds a particular status, reinforced throughout later life in the constant ritual of prayers and attendance at the mosque. This early exposure consists of encouragements to learn

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[14] *Transliteration of Algerian Arabic… (PDF Download Available)*. Available from: https://www.researchgate.net/publication/322028151_Transliteration_of_Algerian_Arabic_dialect_into_Modern_Standard_Arabic [accessed Apr 26 2018].

by rote verses of the Quran and practice of the rituals associated with ( Sunnah, khotba, prayers, attending Quranic schools…etc).

In those circumstances, it is understandable why CA has this special place in the Arab Muslim society as stated by Holes (2004) : "

> Classical Arabic is (…) regarded as the inimitable apogee of perfection, unsurpassable in beauty, an ethereal ideal of eloquence, perfect symmetry, and succinctness—however imperfectly, in practice, many Arabs understand it. (p.5)

Although syntax, semantics and phraseology of Arabic have undergone changes since the revelation, Classical Arabic is rooted in the Quran which is unchanged and still plain to see for everyone. This adds a common cultural tie for the believers explaining the claim made by Arab speakers from mutually unintelligible Arabic lects that they all speak the same language. People were all time reluctant to change the classical Arabic and aimed to keep it as 'uncorrupt' as possible. One example is an attempt made by Anis Furay'ha (1955) in his book "*Na'hwa 'Arabi'ya Muyassara"* [Towards a Simplified Arabic] aiming at simplifying CL for a new medium between writing and speaking. When Academic colleagues who earned their living teaching CL received the book, they protested saying: *ya: ?usta:z, xalli:na n'i:sh !*translated as: "Oh, Professor, please don't take away our livelihood!"[15].

This shows from one side that people did not want to touch CA because of the sacred status it has, but at the same time they were fully aware that another simplified version would serve better life changes be it for journalism or other media. This was fulfilled as Modern Standard Arabic.

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[15] This has been reported by Clive Holes (2004) in his book " Modern Standard Arabic: Structures, Functions and Varieties".

## 2.5.2.3.2  From CA to MSA

Belonging to the branch of Central Semitic under the large family of Afro-asiatic languages, Classical Arabic is known to every person from the Arab community especially the muslim one. But for functional matters, a more 'practical' version was needed not only in the western schools that teach Arabic, but even in the Arab community which goes with the needs of the time. Although there is no stated date about the change from CA to MSA, CA is about Arabic versions before the 7th Century and MSA became important when Pan Arab meeting made it the language of work in their congregations.

Also known as Modern Literary Arabic (MLA), MSA is the descendant of Classical Arabic unchanged in the syntax but still evolving in its vocabulary and phraseology (syntax, morphology and phonology). Even if some linguists clarify the nuance and difference between MLA, MSA and CA, others (the case in this thesis) would use the term interchangeably with *El 'Arabi'ya el Fus'ha* 'pure/eloquent Arabic' in opposition to the colloquial form, the vernacular, el *'A'mmiya*, *el'la'hja'* or *e'ddarija* being spoken and not written. Another variety is described by Benrabah (2005) as "an intermediate form or a 'compromise' which lies half-way between the written and spoken forms of Arabic, and is known as Educated Spoken Arabic (401).[16]

## 2.5.2.3.3 The Position of MSA in Algeria

Starting from the 1970s, MSA is used in Algeria in many domains as stated by Abboud & Sa'id (1971) " that variety of Arabic [MSA] is found in contemporary books, newspapers, and magazines, and that is used orally in formal speeches, public lectures, and television".

While the local varieties /dialects are found in every Arabic speaking community with degrees of change from one place to another, they are used for intimacy, personal/everyday interactions and domesticity. MSA however, is the language of

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[16]Found in Benrabah (2015 :401)quoted from Benali-Mohamed, 2002:56, Benallou, 2002:37; Mahmoud, 1986:239; Queffélec *et al.,* 2002: 34-5).

power and control used in business, television and media discourses, political and official declarations, education, books, religious preaches and the normal medium for formal discourse.

As described by Droua-Hamdani, Selouani & Boudraa (2010), The phonetic system of MSA has basically 34 phonemes: 6 vowels (3 short vowels with 3 opposite long ones) and 28 consonants. Among these consonants, there are two distinctive classes, which are named pharyngeal and emphatic phonemes. In addition to the [madd] (long vowels) and emphasis [tafχim], there is an important Arabic characteristic, which is gemination [taʃdid]. (As reported by Droua-Hamdani *et al*. 2010 :159 from J. F. Bonnot, "Étude Expérimentale de Certains Aspects de la Gémination et de l'Emphase en Arabe", Travaux de l'Institut Phonétique de Strasbourg, 11(1979), Strasbourg, France, pp. 109–118).

In Algeria, MSA version is full of loan words from French (due to colonisation policy) in addition to remains of other languages inherited from other conquerors to a lesser degree. One should admit that although MSA is highly derived from Arabic, MSA in Algeria is not the same as MSA of Jordan or another country from the Middle East with degrees of differences. This is explained by the history of the country, the influence of trade due to the Mediterranean geographical situation and basically from the government political decision and colonisation policies. In fact, the local variety spoken in every day life 'colloquial Arabic' represents at best this mixture and would explain this difference of MSA from the Maghrib to the Mashriq (West to East) as explained below.

### 2.5.2.4. Colloquial Arabic in Algeria: Algerian Arabic?

It is sometimes 'daring' to name the local variety spoken by most Algerians spontaneously in their every day communication as 'Algerian Arabic', since a person who does not know this country may think that it is an isolated and distinct variety separate and stable by its locutors long time ago. This is not the case for the time being, but just as Algeria belongs to the 'grand Maghreb', this local variety is very similar (at different degrees) to the local one spoken in Morocco and Tunisia

and dissimilar (to certain degrees as well) to the local variety of Duba or Oman. This could be explained again by the proximity and georgraphical position, or the mercantile relations between the populations. But what is interesting, many linguists are using the term 'Algerian Arabic'. Although bordered by Morocco and Tunisia (as an example only), this variety is so present, particular, very used and vivid that it is gaining a strong position not only among its populations but not confused with the Moroccan or Tunisian local variety anymore. Although very close, diplomatic relations made it that the border between Morocco and Algeria is closed since 1994 and thus contact between the people is limited since 24 years. In addition, Algeria went into a 'black decade' in the 90's where an internal conflict made that Algerians were not welcomed out of their country (confusion between terrorists and civil society). As a consequence, Algeria was very isolated with a total drop in tourism in addition to a sudden economic crisis. These circumstances made the population isolated (visa imposed from Europe) and the lack of contacts with others is one hypothesis that made the local variety develop, flourish and become distinguishable among the others.

This has given 'power' to some parties who want to make it as stable as a language per se and promote this variety into a full language written on books with grammar manuals under the pretext that it is spoken by 90 percent of the population. Also, the linguists' position is different; the Arabophones want to integrate MSA in every domain even in daily speech with a (non said) hope of eliminating Algerian Arabic and developing MSA as a stronger version for nationalist and anti-colonialist purposes. One proof is when the president of the High Council of the Arabic Language in Algeria, Pr Salah Belaid, asked the journalists to keep away from 'slang' and the use of Algerian Arabic and 'upgrade' into Arabic (meaning MSA)[17] .

Other 'francophone' linguists state that since MSA is not the native language of the population and Algerian Arabic is spoken by the majority, it is a 'reality' that in a decade or so, one should think about promoting it into a language with the help of

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[17] Article retrieved on 29-Apr-2018 from
http://www.radioalgerie.dz/news/ar/article/20180218/134251.html

the politicians. They advance arguments like MSA is a 'foreign language' in the brain of the children and therefore it constitutes an obstacle for the children to learn when first getting into school (Dourari, 2014; Elimam, 2004). Studies proved that in other countries, this is not an issue as they claim, and there are always factors that should be respected for the success of language learning. In psycholinguisics, one theory states that even if children learn many languages before six, this will never be a matter of confusion for their mother tongue. In all the cases, the debate is not over depending on the society, the individual, motivation, intelligence…etc.

The 'Berberophone' sphere has a converging view with the francophones but a debating position since they agree on Algerian Arabic (AA) as official language but are in favor of writing Tamazight in Latin script or Tifinagh but not Arabic (debating question not yet fixed) [18]('APS – Appel à préserver l'Amazighité « des surenchères stériles et de toute instrumentalisation politicienne » | Haut Commissariat à l'Amazighité', n.d.)Assad, president of the 'Higher Authority for Amazighness' in Algeria[19]).

These 'tensions' between Arabic, French and Berber in Algeria make it 'legit' to consider 'Algerian Arabic' (AA) and should be seriously studied by the linguists who should get inspired from other multilingual countries. At the same time, the debate is not only restricted to scientists but politicians as well. Far from conspiracy, general attitudes of the population think that the Algerians who promote French language in the institution and daily life are not 'patriotic enough' and have personal interests in France, while these latter claim that French is a remaining of French occupation and should not be spoiled but used appropriately for an advance in science and technology. Although English is the language of globalisation (not French nor Arabic for the time being) they see it as a better way to access science development through French as a language tool rather than Arabic which is from another language family.

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[18]Article retrieved on 29-Apr-2018 from http://hca-dz.org/aps-appel-a-preserver-lamazighite-des-surencheres-steriles-et-de-toute-instrumentalisation-politicienne/
[19] Translated from French 'Haut commissariat à l'Amazighité' by Dourari 2014.

Arabic advocates in majority, link the language with the religion as a reflection of the Algerian society in addition to nationalism and patriotism. This does not mean that the others do not agree with these claims. A local linguist, Khawla Taleb-Ibrahimi (1995) has said in this context that the Francophones of Algeria read and write in French only while the Arabophones read and write in French and Arabic as a better way to face future challenges.

This is a bird-view of how complicated the language question is in Algeria, as it is confusing, complex and still not linguistic 'only'.

In this part, we have justified why the term Algerian Arabic should be used and below is a comprehensive study of AA.

### 2.5.2.4.1 The roots of Algerian Arabic (AA)

There are significant local variations in Algerian Arabic, from pronunciation to grammar, as the root is Arabic with influences from the Berber, French, Spanish, Turkish and Italian due to the geographical position, colonisation and history of the country. Well known differences are observed "…*in the Wilaya of Jijel where the phoneme [q] is replaced by [k]; [ð] is pronounced as [d]; [dˤ] and [ðˤ] are pronounced as [tˤ]; and [θ] and [t] are pronounced as [ts]. In the Wilaya of Tlemcen, [q] is produced as glottal stop [ʔ]. In the spoken Arabic of Oran, [q] is replaced by [g]."*(Droua-Hamdani et al., 2010).

The map below includes Arabic and Berber and their distribution in the country.

**Figure 14: Geographical location of Berber and Algerian Arabic Varieties in**

**Algeria.(Benrabah, 2005)[20]**

This map shows four areas classified as follows (Benrabah, 2015):

- From the Morrocan border to Tenes: Western Algerian Arabic
- Center of Algeria with Bejaia, Algiers and its surrounding: Central Algerian Arabic
- High Plateaus around Setif, Constantine, Annaba to the Tunisian border: Eastern Algerian arabic

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[20]Adapted from *Ethnologue*, 2004.

- Sahara desert: Saharan Algerian Arabc spoken by around 100.000 inhabitants.

Algerian Arabic is thus closer toTamazight than to the Arabic dialects of the Middle East to the extent that one feels as if he/she is faced with two distinct language groups (Chtatou, 1997). Furthermore, Watson on her preface (page xix) of the book "**The Phonology and Morphology of Arabic**"(J. C. E. Watson, 2007) adds that " *Dialects of Arabic form a roughly continuous spectrum of variation, with the dialects spoken in the eastern and western extremes of the Arab-speaking world being mutually unintelligible".*

She explains further that it is unintelligible from a middle eastern to understand a Maghrebi dialect but not the opposite, since an Algerian citizen would watch Egyptian films, channels from the Middle East and follow their broadcast media.

This statement was said in 2007, but with the advance of computer mediated communication, code-switching is becoming common in north African Arabic in general since comments on social networks and news feeds very often contain code-switching (Salia, 2011) and one may (indirectly) understand that this unintelligibility gap is becoming narrower.

Benrabah (2015:402-403) has remarkably reported many words found in the Algerian dialect with their origin and historical connection. He coined "linguistic nativisation" the lexical items borrowed from the languages that Algerians came into contact with over the centuries as summarised in the table below:

| WORD | MEANING | ORIGIN | REFERENCE | |
|------|---------|--------|-----------|---|
| fnâr | lighthouse | Greek introduced by the Romans and/or the | Ben Cheneb, 1922: 9; | |
| bromich | bait for catching | | Hamdoun, 2004 | |

| | fish | Turks | | |
|---|---|---|---|---|
| pullus<br><br>Berberised as fullus which became fllûus<br><br><br>Qalmun Harkas | Chick<br><br><br><br><br><br>Money<br><br><br><br><br>Hood<br><br>espadrille | Latin<br><br>brought by the Romans | Benrabah, 1999a: 71 | |
| *Braniya*<br>*bukraj* | Aubergine<br>kettle | Turkish | Ben Cheneb, 1922: 9; Benzaghou, 1978: 29) | An estimate of 634 words disregarding proper names |
| *Bestel*<br>*sdaka* | Dish<br>charity | Judeo-Arabic | Bar-Asher, 1992: 178; Duclos, 1995: 124 | |
| *Sourdi*<br>*Babor* | Money<br>Ship | Lingua-franca | Perego, 1960: 95 | |
| *Trabendo*<br>*Bogado*<br>*Mariou*<br>*Capsa*<br>*Fechta* | Smuggling<br>Lawyer<br>Cupboard<br>Tin<br>celebration | Spanish/Catalan | Benallou, 1992:6, 2002: 133 | Mainly in the west of Algeria |
| [biro], | Office | French | Hadj-Sadok, 1955: | apparent in |

| [tabla] [rigla] [tomobil] | Table Ruler (tool) car | | 61-97; Queffelec *et al.*,2002: 27; Sayad, 1967: 214-17 | the vocabulary in almost all semantic fields: agriculture, fishing, urbanisation, industry |
|---|---|---|---|---|

**Table 1: Words from different origins found in Algerian Arabic (Adapted from Benrabah, 2015).**

Chemami (2011) traces back the split between Literary Arabic and Algerian Arabic with the Spanish settlement (1509-1555) by the phenomenon of borrowings[21]. This cut has been increased during the French colonisation of Algeria (1830-1962) when Literary Arabic was far from the various social and administrative domains for the benefit of French language. As we shall see further, language policy in Algeria has undergone two major phases, the first called 'arabisation' after independence of the country(1962-1999), and the second is known as 'the educational reform' since 2000.

### 2.5.2.5. Berber (Tamazight)

Although Algerian Arabic is the main language of the country used by 80% or more of the population as their mother tongue, (statistics vary between 70% and up to 90%), Tamazight is also the mother tongue of a minority of Algerians. Derived from Berber, it is the oldest language in the Maghreb (Montagnon, 1998:22) and has been officialised in Algeria since 2018. It is practiced by 20%-30% and its modes of writing are not resolved. In addition, among the 48 wilayas of

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[21] Bensafi (2002, 831)

Algeria (departments), it has been initially taught in 16 wilayas but this number regressed to only ten (Chemami, 2011).

The term 'Berber' is etymologically derived from 'barbaros', which the Greeks used referring to anyone who was foreigner. Originally the term is degrading and undignified this fringe of the population 'the Berbers'. In Algerian school manuals, it is taught that Berbers are the original inhabitants of North Africa (and thus Algeria) meaning 'the free men'. This is often associated with the rebellious and powerful men.

Nowadays, people started to use 'Tamazight' in order to refer to the language and 'Berber' to refer to the ethnic/people, but in this thesis both Berber and Tamazight will be used interchangeably to mean the language.

Belonging to the Hamitic group of languages, Berber forms diverse speech communities made up of four ethnic groups within Algeria namely; Kabylians (The most important group or Kabyles) about two thirds of Berberophones, spoken in Tizi Ouzou, Bejaia, Bouira, and Boumerdes. The second group is the Shawiya (Tashawit);localising in the Aures Mountains and the South-East of Constantine (Benrabah, 2007).

Next is the group of Mzabi (Tamzabt/Mozabites) localised in Ghardaïa and its surrounding agglomerations, and the fourth group 'Targui/ Tuareg' in Ahaggar (Sahara). In addition, other berber varieties still exist as *Chenoua, Tarifit, Taznatit*…etc; "Yet, Berber as it is nowadays does not constitute a single unified language; rather it is a group of varieties which are different from each other mainly at the phonological and lexical levels while the grammatical structure remains the same in all the varieties" (Benali-Mohamed, 2007).

Tilmatine (2015) has named 'the battle of Alphabets' the actual situation of Berber in Algeria for the choice of the writing script; Arabic, Latin or Tifinagh? The three have pros and cons in the context if we take into consideration the Algerian society, economy, government, language policy, religion and education. For Arabic

promotes a unifying context (already present) linked to nationalism, anti-colonialism and Islamic ideology. Latin is connected to French (already present as well) to promote technology, economic development but also a non- separation from French (and its harsh colonialism). Albeit Tifinagh, this script is so much connected to identity that it could become potent marker not allowing the language to face the future century challenges and by opposite isolate the community and restrict its spread elsewhere.

These issues constitute a real impediment to the development of the language and although Tamazight has been recently officialised (2018) and used in the media, tv channels and radio, the question of 'language standardisation' is still open.

These varieties have been preserved in the respective regions although the Muslim settlements widespread in the region (and thus bringing the religion and the Arabic language too) mostly during 7th the 8th and the 11th century.

The reality reflected a multilingual society but the political and official decision makers contrasted this 'reality' resulting in socio-cultural unease. In a time where the media was absent, one can hardly imagine the big Maghreb speaking the same language. (p.45 from Multiculturalism and democracy in North Africa: Aftermath of the Arab spring , edited by moha Ennaji 2014 in Dourari, 2014)

### 2.5.2.6. French

"When the Portuguese colonized, they built churches; when the British colonized, they built trading stations; when the French colonize, they build schools" (Gordon, 1962:7) quoted in (Benrabah, 2013). This saying defines the aims of the powerful former colonies and shows the intentions of the French by 'building schools' to spread their language, culture and civilisation. France had a historical bond with Algeria and wanted cultural assimilation above all. They justified their invasion by "the civilising mission" they had to do.

What place does French occupy today in Algeria? The reality is unsplit from its ideological side. Unlike the other languages spoken in Algeria, French is officially

the first foreign language but is not as foreign as English, Spanish or German. This official attitude is paradoxical, to say the least. Indeed, French has since the beginning of the French colonisation been considered the official language of the country and therefore of power. But with the independence of the country in 1962, Modern Standard Arabic has been substituted for French, a decision which had to be enacting decrees and laws aimed at making the use of Arabic language in all sectors of economic and political sphere in order to recover the main references of the national identity.

The latter were considered threatened since the beginning of the occupation in 1830. Even though dismissed by texts from the official sphere, the French nonetheless continue to assume official status and to embody it in certain areas, despite the paradoxical character of its status that exists between the text and its usage *in situ*. (Asselah-Rahal, 2001)

Although considered foreign language, the use of French is found in many domains like education, administration and culture. It is even used in the drafting of official texts which recognise the officiality only to MS Arabic. For example in the official journal of the Algerian Republic, Dourari (2014) describes the status of French as co-official with Arabic and as a co-institutional language. This coexistence of the two languages nevertheless remains "Random and cyclical", with regard to the rest of the administrative documents, which are sometimes written in Arabic, and sometimes in French, sometimes translated into another language and sometimes not. (Queffelec, Derradji, Debov, Smaali-Dekdouk, & Cherrad-Benchefra, 2002)

In the local civil/public and other official documents, the mentions are written in Arabic and French. The exceptions are the national currency, the fiscal stamps and postage stamps "symbols of sovereignty".As to the areas of use, except in law/justice, this ambivalence is evident in the health sectors, telecommunications, energy, finance and local wilaya meetings. This is due to several factors including

executive training, management model inherited from the colonial period, but also the need to maintain French in the technical fields.

As for universities, generally speaking, the language of instruction for the Human and Social fields is Arabic while graduates preparing for a license in French and the ones from scientific and technical streams, medicine, veterinary sciences, chemistry, biology, agronomy, physics (the hard sciences) use French .This trend shows, for some, the lack of mastery of 'the working tool' that is French by students who have benefited during their schooling of only limited French hours.

Once enrolled at the university, they are confronted with courses taught in French, and therefore with significant difficulties in mastering the topic of their studies. The prospects for research are limited because of a poor mastery of general and specialised French, contrary to what was the case for the generation of their teachers who, up to 1978, benefited from bilingual education where education was provided by Algerians trained in French, or by French and other 'cooperants'. (Asselah-Rahal, 2001)

No official statistics are available for this trend, but most interviewed students stress the need today to learn French or another foreign language as a means of access to science and technology. Graduates attest to the paradox widening the gap between high school and university, which turns out to be of prior importance to succeed in academic studies and to fulfill the mission of the university as an 'engine of research'.

Regarding the corpus, that is to say the real uses that Algerian speaking subjects make of French, we can observe that the French language, because of its presence in the media and its dissemination through schooling, enjoys a privileged place in the Algerian society. According to statistics from the 'The High Council of the Francophonie' reported by Sebaa (2002) "60% of the Algerian population can be considered as 'Real' Francophones and 30% form the category of 'occasional' Francophones.. Khaoula Taleb-Ibrahimi (1995) even goes further to speak of a 'passive competence' enjoyed by a large part of the Algerian population whether

schooled or not", where French is sometimes acquired side by side with the mother tongue in daily social environments.

French is used in Algeria in a context of Code switching . This characterises communicative exchanges in formal and informal settings, not withstanding borrowing French that is integrated into Algerian languages. This phenomenon is found in ordinary communicative situations like songs, theater and/or cinema where the language of everyday life is exploited. It should be noted that in the context of cultural exchanges with France in particular, many theatre plays have been translated into French and represented in France as well as in the French cultural centers of Oran, Tlemcen, Algiers and Annaba with the participation of the Algerian community living, particularly the young.

The Algerian sociolinguist Asselah-Rahal groups Algerian Francophones into three categories;"real francophones", "occasional francophones" and "Passive francophones". The first use French daily, the latter use it occasionally, alternating with Arabic, targeting specific objectives while the third category understands French without speaking it.(Asselah-Rahal, 2001).

Despite the ideological pressures about discarding French from its status of foreign language or its non-instruction through the educational system, the evolution of its use in society and in the fields of public life (especially for work), is becoming so apparent that its role stands for a vector of technology and modernity. French, today is a symbol of social promotion, a source of fulfillment and vehicles values of prestige, for this language is in favour of those who speak it. (Temim, 2007).

This argument is advanced in favour of learning the language. The social demand for training goes in this direction as an intellectual tool for the exchange with the world. The other criterion reinforcing this choice is the historical impact of the French language in the Algerian society which gives it a place of choice. Meanwhile, the Arabic-speaking Algerians support MS Arabic as a national and official language due to identity and nationalism rather than to motivations related to the socio-linguistic habitus which testifies to an appropriation of this language by

the Algerians, and therefore of a subjective attitude or even an emotional one. This is seen in the mass media where every time the 'puzzle' of the French status in Algeria is evoked, the decision- makers cannot deny its strong social position and confess that although it is a foreign language, they confess that it is rather a second language for a part of the population, but they assume the choice of its status vis-à-vis its history.

The opening to the world market imposes its linguistic constraints too, since learning a foreign language is no more a choice but a necessity in the context of globalisation. Besides, more and more Algerian intellectuals, students and academics, trained in other languages, including Arabic; live this non-mastery of French as a handicap, as it limits access to translated written resources produced in this language, which is a major asset for the development of the research.

Just as in other countries, a part of the population is claiming the promotion of English as the language of the future which will effectively support trade, marketing and technological development. This gives rise to another debate whether English should be taught through French or rather French should be put aside for the promotion of English? This question is to be left for didacticians and other specialists in the field.

## 2.6 Conclusion

In this section, the role of the existing languages in Algeria has been depicted with a particular attention for the socio-historical events and the context of every language.

Although, the language question is very complex in Algeria, there are some specific domains where MSA is used and others where it is French or Berber. Nonetheless, the local dialect Algerian Arabic is the one used by all the population in all the country. Although, it includes, code-switching, code-mixing and borrowing, it is

used in the majority of domains of daily interaction and progressively gaining ground on the webosphere.

CHAPTER THREE

# RESEARCH METHODOLOGY

# CHAPTER THREE :RESEARCH METHODOLOGY

## 3.1 Introduction

The literature review in chapter one and two demonstrated that although the concept of social support was extensively investigated before, when applied to the online context, many studies contradict each other. The following chapter details the framework behind the methodology used to investigate the current work. In the last decade, research in computer mediated communication has flourished with a body of empirical research that is contradictory and confusing, and which offers recommendations for further practice all different from each other. This study is no exception, because the context of CMC and social support is done in a different context and a different place namely: the Algerian online community on Social Media.

Throughout this chapter, a description of the study is detailed with the methodology being used. Following a scientific framework that undergoes any investigation, details will be listed about the subjects, context and topic of research with the tools and design being applied.

An analysis of the collected data will also be highlighted although the focus will be on the treatment of the corpora. One of the aims is to make sure that with the quantitative and qualitative studies together, the study will be representative and valid enough to be repeated and replicable in scientific set conditions.

## 3.2 Prelude to the Study

This study is a result of a 'curios' set of questions which have arisen due to the intensive use of the internet and social networks in particular. I wanted to know how people behave online? How do they socialise in the absence of any physical clue (eye contact, face expressions…etc)? What attitudes or value judgments do they hold about others? What makes some groups develop and have a load of followers? How do some people become 'close' and share solidarity whether for compassion or conflict management? How are feelings

expressed?        What is the place of 'self esteem'? What are the characteristics of the Algerian online user?  Because those characteristics are all related to social support, I wanted to know, in brief, how 'social support' is established?

No answer could be possible without the exploration of language use since it is the only 'measurable' tool available in this study. Hopefully, sociolinguistics combines the psych/sociological aspect dominating this study in addition to the scientific study of language.

Through this investigation, many 'conversation threads' were explored, sometimes in context, and other times isolated through a longitudinal study which lasted  seven years. During this time, some conversations were achieved online while others 'faded away' took another direction or were simply deleted without any notice. Indeed, in an online environment, it happens frequently that users change their profile settings from public to private, change their online identity or even decide to resign from a group/discussion without any notice. Soon, I realised the importance of taking snapshots and saving all what could be relevant for this study.

Thus, the reader may not notice at first the synchronicity of all questions but they all merge to investigate the social behaviour of the individuals through their spontaneous language expressions.


## 3.3 Rationale of the Study

The present study is composed of two main parts. The first one is a quantitative study based on a large proportion of the online community on youtube. The aim is to make sure and verify first if social support exists online. Therefore, a large set of three thousand (3000) posts on youtube have been scrutinised on specific requirements that match the different categories of online social support. There was no condition except that the posts were written by Algerians. This was identifiable by the researcher who belongs to the same community and almost by the sociolinguistic framework set on the literature review. In reality, a much larger

corpus was collected at first then restricted to three thousands only with the identifiable categories and specific topics of discussion as detailed in this chapter. Therefore, observation took a longer time than expected with changing variables each time.

Based on the results of the quantitative study and once the researcher made sure that Social Support exists, a qualitative study would follow. This will allow to list in detail which category in social condition is necessary in order to answer the research questions set in the beginning of this work. Hypotheses will be verified each time and will contribute to set conclusions about analysing one of the behaviours and needs of Algerians online. This will make an additional contribution to the research in CMC in general as the researcher relies on the originality of the methodology applied.

In this context, choosing the 'right' and 'adequate' tools was no easy choice since traditional ways of collecting data, conducting interviews, making poll questions, matched guise technique, semantic differential questions, surveys, Likert scale ethnographic interview to name few  techniques used in the sociolinguistic ground may no more be effective, representative and reliable when it comes to online communication. As more data is to found from web-based resources, methodology to treat it should be reviewed as suggested by many researches especially in the field of CMC (Androutsopoulos, 2015).  For this study, a 'blended data' will be sought for.

So, cyclical procedures of blended data collection can begin with observation, followed by screen data collection and preliminary analysis, then establishing contact with selected participants.(Androutsopoulos, 2015)

## 3.4 Part One: the Quantitative Study

### 3.4.1 The Framework

The corpora used for comparison in this study are published transcripts of youtube posts written by Algerians constituting bilingual corpora. The data from the corpora represent a sample of Algerian Arabic in spontaneous communication of the studied community.

Prior to this framework, an analysis of multiple sources of data has allowed for a more thorough comparison to be made regarding the contact phenomena since at the beginning, posts from facebook, twitter, forums, blogs, wikis, chat logs and any other form of online communication were considered. With a long lasting observation, only youtube was selected at the end for the quantitative sample, followed by a more qualitative investigation on the popular social network Facebook.

### 3.4.2 Empirical Research

In sociolinguistics, an interest in how language functions in its real social life results in an empirical investigation. This kind of research relies on data collected through fieldwork or observation as opposed to data collected through introspection, i.e., analytical analysis (J. Milroy, 1991; L. Milroy & Gordon, 2008).Johnstone (2000) points out that "sociolinguists have their own analytical methods for collecting, describing and interpreting the data in a systematic way, whether the data consist of speech or signing or writing, by one person or many, on one topic or several".

In making an empirical research, four main questions have to be tackled prior to any study (Bijeikienė & Tamošiūnait, 2013):

- Why doing the observation: this leads to the purpose
- Who to observe: this leads to the subjects
- How to do the observation: instruments and techniques

- When to do the observation: time framework (can be a constraint for long studies)

Later on, this empirical observation will result in data that will be analysed later. (Johnstone, 2000).

### 3.4.2.1    Non-experimental research

In line with empirical research, non-experimental research is widespread in sociolinguistics. It entails both quantitative (surveys, polls) and qualitative (ethnography, discourse analysis) studies. For quantitative studies the researchers gather data that allow statistical analysis, while in qualitative studies the researchers gather data that allow content analysis (the most usual form of such studies is the semi-structured interview). However, according to Johnstone (2000: 36), most sociolinguistic research usually combines both approaches: "sociolinguistic research projects are neither exclusively quantitative nor exclusively qualitative". In other words, the sociolinguists have always to interpret the data – be it numbers or words – and decide what it means. Analysing sociolinguistic data, thus, involves,some counting in addition to the descriptive explanation that helps to answer the questions of "how" and "why" certain things happen (Johnstone 2000: 37) (Bijeikienė & Tamošiūnait, 2013)

### 3.4.3  Social Identities/ Social factors and Online Participants

To cite a few; age, gender, ethnicity, level of study or class are some common social factors that could alter any ethnographic study as they give details about the background of the informants. Those elements are very important to any study related to society, but what about the case of social media sites like a large network of youtube or facebook? Many issues arise in this case since the informants have the possibility not to say the truth about the country of origin, gender, age…etc. In addition, even if one takes for granted those details mentioned in the profiles, the doubt remains about their truthfulness.

On his large scale study named "Language variation on Internet Relay Chat: A social network approach", Paollilo (Paolillo, 2001) makes a special mention of the social identities online and suggests other ways to verify them, for example first collecting posts from the network, then conducting an interview as stated below:

> "…Digital  communication, especially of the public type, is often carried out anonymously and among interlocutors who lack information for mutual social categorization. This is a serious problem for any sociolinguistic analysis that depends on clear-cut socio-demographic information (gender,social class, etc.), but it can be addressed or circumvented in a number of ways. First, researchers can contact relevant users and collect socio-demographic information post hoc, though doing so is not always practically feasible, especially in public CMC"

Most importantly, he encourages researchers to put aside the social factors in public CMC studies when collecting data, and then verify the ones that are needed with another research tool (survey, questionnaire, interview…etc) as in "Alternatively, researchers can abandon external socio-demographic factors and turn to environment-specific categories such as regulars/novices or admins/normal users, to which sociolinguistic variation is then correlated "(Paolillo, 2001).

In the present study, we wanted to know first the most popular topics that Algerians go to online. So, after a long observation of those topics on youtube, we have followed videos where Algerians make lot of comments and the following topics had large followers and interactions on youtube:

| Popular Topics of Algerian Users on Youtube |
|---|
| **Cooking/recipes** |
| **Fashion** |
| **Funny shows/entertainment** |
| **Health** |
| **Movies** |
| **Music** |
| **News reports** |
| **Politics** |
| **Religion** |
| **Science** |
| **Sport** |

**Figure 15: Popular topics of Algerian Users on Youtube**

As the topics are numerous, we have decided to make a large survey of 3000 Algerian users based on a Likert scale (from very frequently to never) about the most popular videos they watch on youtube. The survey was carried on facebook without any mention of the social factors like age, gender or origin as previously carried by Paolillo (2001).

Often used in social network approach, the participants of this study were not randomly chosen although they are unknown to the researcher. This approach was similar to the "friend of a friend approach' used by Milroy (L. Milroy, 2002).

Based on the comments following videos on youtube, I contacted the 'participant' with a ready message already saved containing a link to the survey in google forms. The link was later on embedded directly in youtube , and facebook followed also by

embedding links directly. In this way, I was no more obliged to contact persons one by one, but rather I just posted a link in the target youtube group and waited for persons to answer. This was a major advance in surveying, since no more link directing to the forms was needed anymore.

Some of the participants replied when online while others offline as it did not take much time to complete the survey. The survey was ready in three languages, but as it was in a very simple language, I sent it either in French or Arabic depending on the type of comment made. No one asked for an English translation. Later on, the link had an embedded language tool, so if the participant wanted to switch the language, he just had to click on the 'language flag'

In addition, there was no need to ask for permission or consent as neither the names nor sceenshots were listed directly. The survey was largely disseminated until the number of 3000 was reached.

### 3.4.4  Research Instruments
#### 3.4.4.1    The Survey

Although many researches encounter issues related to conducting studies on the internet, others however, find it beneficial since a well-designed online survey instrument can help ensure that all questions are answered and even provide a first pass at data analysis.(Mallinson, Childs, & Herk, 2013). In the same book, Baron (2013:148) states that:

> *"online survey tools, be they stand-alone products such as Survey-Monkey or surveys embedded in Facebook, facilitate collection of larger and more diverse samples than is often possible working face to face. They also enable researchers to collect data from sites where they are not physically present."*

As the topics of interest are numerous on the web, a survey was followed using Likert scale to determine and restrict the topics to the most popular one only, otherwise the data would have been too large to analyse.

The question asked was:

- Among the following topics in youtube videos, choose the ones you are accustomed to watch.

As a member of the community, once reading a comment on youtube, I could easily know if the person is Algerian or not in addition to some linguistic markers used in the writing (as mentioned in the literature review; translanguaging/polylanguaging, diglossia, code-switching, code mixing, borrowing...etc).

The survey question was prepared in 3 languages namely, Arabic, French and English and distributed to web users on different platforms. Some answers were collected from youtube, when I noticed a comment made by an Algerian, I sent the survey question privately. Some were on youtube and others on facebook until the number of 3000 answers was attained.

The number of responses was large enough for the validity and representativeness of the results later on. Based on the answers, a selection of topics was to be made, and then another survey was to follow related to those popular topics on internet only. This goes in line with research in quantitative methods, where surveys, Likert-type scales often with follow-up interviews are common. For instance, to measure educators' language attitudes.(Blake & Cutler, 2003).

### 3.4.4.2    Likert Scale

Likert scale can be used in many ways in order to measure attitudes, frequency or likelihood to name but a few examples, it is particularly useful in this study because it assumes that the strength/ intensity of an experiment is linear, i.e, on a continuum from very frequently to never. Respondents are offered a choice of seven pre-coded responses with a neutral point in the middle.

The results will be displayed in a bar-chart because they constitute a continuous distribution of observation. In addition, the respondents are offered an easiness to

answer by checking the right box that represents their opinion. Also, anonymity of this scale would reduce social pressure and likewise, reduce social desirability bias as mentioned by Paulhus (1984). He found that "more desirable personality characteristics were reported when people were asked to write their names, addresses and telephone numbers on their questionnaire than when they were told not to put identifying information on the questionnaire"

For the complete survey, see Appendix B

### 3.4.4.3    Observation

*"Always remember that 'good ethnography' relies on lots of observation, systematic observation, and observation of various sorts"* (Johnstone 2000: 95).

The place of observation in this quasi-longitudinal research is of prior importance. Indeed, in any ethnographic study, observing the subjects was determinant in setting the research questions and hypotheses that would follow. In sociolinguistics the tradition to use participant observation stems from the work of John J. Gumperz (Labov 1984: 28) and Dell Hymes (Johnstone 2000: 84). Hymes proposed the term "ethnography of communication" by pointing out that a community's speech and writing (language) are themselves an "aspect of culture worth of study" (Johnstone 2000: 84). In addition, observation allows an in-depth understanding of the community to get acquainted with the norms, traditions, local knowledge and 'sociolinguistic dynamics' .(L. Milroy & Gordon, 2008).

In CMC, observation is the core of the study as many researchers suggest different names for the methodology in online contexts although they heavily rely on an ethnographical approach.

(Varis, 2016) summarises all those names as

> "… 'digital ethnography' (Murthy 2008), 'virtual ethnography' (Hine 2000), 'cyberethnography' (Robinson & Schulz 2009), 'discourse-centred online ethnography' (Androutsopoulos 2008), 'internet ethnography' (boyd 2008; Sade-Beck 2004), 'ethnography on the

internet' (Beaulieu 2004), 'ethnography of virtual spaces' (Burrel 2009), 'ethnographic research on the internet' (Garcia et al. 2009), 'internet-related ethnography' (Postill and Pink 2012) and 'netnography' (Kozinets 2009)."

She continues by stating that "The common denominator for these studies is that they all include some kind of online data, and they all employ (a particular version or understanding of) ethnography in the research process". This allows the research on the digital field to have a freedom and get inspired from the different approaches, as they may combine many or select what suits their needs.

In this context, Androutsopoulos (2008) suggests a DCOE methodology (Discourse-Centred Online Ethnography) to collect and analyse data. This approach has two dimensions (A) the systematic observation of the data and (B) contact with participants.

In my case the first dimension will extensively be used while the second will not be considered, since this study will be followed by a more qualitative approach involving another context.

### 3.4.4.3.1    The Systematic Observation of Data

This dimension comprises six pillars which were respected for that 'observation' process would be valid and representative.

- The first one is the continuous monitoring of facebook participation, which grants insights into discourse practices and patterns of language use. This has allowed me to connect very frequently and 'lurk' the participants' comments on youtube and facebook (sometimes using the laptop, but most of the times with a mobile app devoted for this). In the researcher words, this step is essential to develop a "feel for their discourse" (Andoutsopoulos, 2008:6) while language posts are not seen as separate static expressions but rather posts related to each other, what he named as "field of computer-mediated discourse" or "the ethnographer's sense of space". This gives a broad picture

as if the participants were sharing the same location, although some posts are asynchronous and the participants are from different geographical areas.

- The second pillar is moving the observations from the core to the periphery, the central members were identified as the ones who exerted 'power' and thus, generated lot of answers to their comments. Power users are defined as " those who participated more by posting, replying to comments, or liking posts on Facebook" (Christiansen, 2017).Indeed, from my personal experience, those persons were ready to fill in the survey in minutes and were not reluctant nor did they let it for later. The peripheral persons were the ones who were present (or identified, tagged) in a discussion but did not 'actively' comment/participate. Those sometimes took time to reply and sometimes did not reply at all.

- The third pillar is repeated systematic observation that means, even the days where I was not able to send the survey or contact the user; I was there to observe the flow of the conversation threads on youtube. From a time, only power users attracted my interest and what I was observing is their rule and command to generate lot of comments. This may be of interest in future research, to analyse the techniques used by those influent members which make them control the conversation.

- 'Openness' is the fourth pillar (2008:6) which consists of not isolating any member, and not making a preference over another one. This was about to happen as mentioned in the third pillar where power users caught my interest more than others. It was important to respect this pillar because the sample should be very large including all the population at random without markers of gender, age or power.

- This fifth step is about the use of technology to assist the researcher in the study. Indeed, I used the search bottom or youtube, or looked for the members who had the highest number of likes, or the most recent ones.

- Finally, the last pillar is "the use of observation insights as guidance for further sampling". As the study is not about the popular topics on the internet but social support, this step gave me insight about the next step and how I would select the next conversation threads. At this stage of observation, I made nearly right guesses about the most popular topics on the internet (still before using any statistics) and replied to the first hypothesis about the existence of social support online without using any scientific research tool. I was confident about what I would prove later and realised the importance of observation since I respected al the six listed conditions.

Below is a table representing the six pillars essential to systematic observation in DCOE methodology introduced by Androutsopoulos 2008.

Practice-derived guidelines for systematic observation:
1) Examine relationships and processes rather than isolated artefacts
2) Move from core to periphery of a field
3) Repeat observation
4) Maintain openness
5) Use all available technology
6) Use observation insights as guidance for further sampling

**Table 2: the six pillars essential to systematic observation in Discourse-Centred Observation Ethnography as introduced by (Androutsopoulos, 2008)**

### 3.4.5  Preliminary Results

This part of investigation will be developed later in the Analysis section, (chapter four), but the results of the quantitative study are as follows:

In order from the highest to the lowest, the most popular topics for Algerian web users (out of 3000 informants' responses) are:

- Music

- Funny shows/entertainment

- Sport

- News reports

- Education/culture

- Politics

- Religion

## 3.5 Part Two: the Qualitative Study

### 3.5.1 Introduction

Now that the survey was distributed to 3000 persons, a selection of the most popular topics for Algerians was concrete. The next step is a move to a more qualitative study. A reminder of the main research questions and hypotheses is essential at this stage:

RQ1: When online, people would unconsciously seek comforting (social support) whatever the topic of the community they choose to enroll in (music, politics, sport…etc).What kind of Social SS for each topic ?: appraisal support, belonging support, tangible support or and self-esteem.

RQ2: Is there any difference in the dominating types of OSS for Algerian Arabic and French speaking communities?

RQ3: Is there a relationship between online social support, language use, gender and age?

The researcher hypotheses are:

H1: In joining different facebook groups, Algerians not only want to contribute in a given topic (music, sport, fun…etc) but also unconsciously seek SOCIAL SUPPORT online thanks to the anonymity and special environment that internet offers.

H2: The dominating type of social support will vary according to the topic and/or age and gender.

H3: No difference will be found in the types of social support for the Algerian web users with a dominating Arabic use and the ones with a dominating French use whatever the social factor; age and/or gender.

### 3.5.2  The First Research Question
#### 3.5.2.1    Introduction

The first hypethesis behind asking this question resulted from a thorough observation of the behavior of Algerian users online. In order to answer to the first research question, I assume that when Algerian users connect on different social media sites, they 'unwillingly' look for social support (online social support).

To verify this hypothesis, some research tools have been used as described in the following study, mainly: observation, interview and questionnaire.

#### 3.5.2.2    The General Framework

Before giving details about the methodology and research tools that undergo this study, a general figure is presented below to summarise the most important steps:
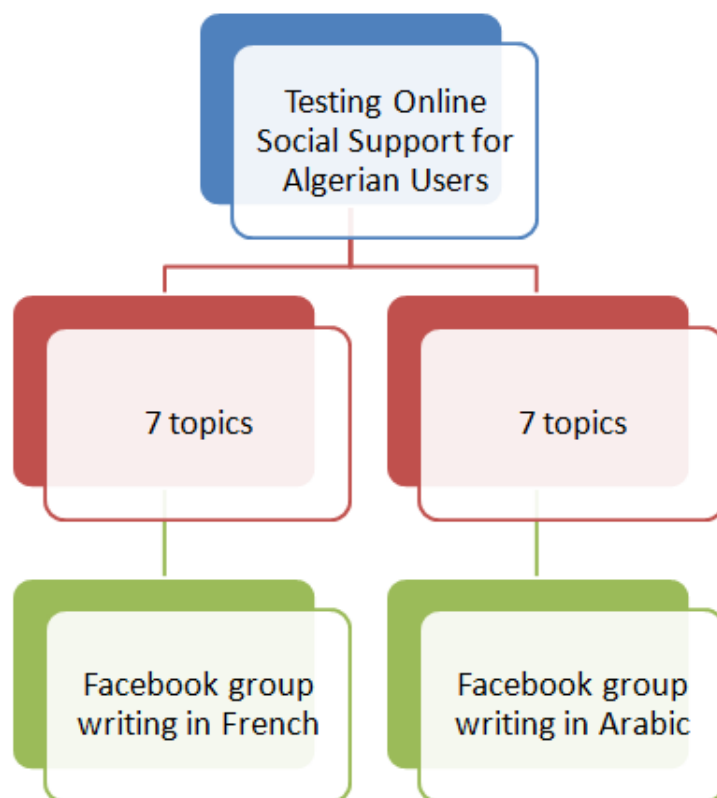
**Figure 16: General framework of the study**

In order to investigate online social support, 7 facebook groups were selected with pre-chosen conditions and this following the 7 popular topics already selected. A questionnaire was distributed to the members (100). The first study comprised members writing in French and the second was to members writing in Arabic. The total was 200 Algerian users which would allow to answer the different hypotheses.

| First Study | Second Study |
|---|---|
| • 7 Facebook groups writing in French | • 7 Facebook groups writing in Arabic |
| • 100 members. 50 men and 50 women at different age groups | • 100 members. 50 men and 50 women at different age groups |
| • A questionnaire about OSS was distributed to all members | • A questionnaire about OSS was distributed to all members |

### 3.5.2.3    Research tools in Data Collection
### 3.5.2.3.1        Observation and Note Taking

As mentioned in the quantitative study, this research tool is of great importance in order to have an insight about the structure and the organisation of the group. Before selecting which facebook group would be part of this sample population, I have followed the DCOE methodology introduced by Androtsoupolos (2008) with its 6 pillars. At this stage, note taking was very efficient as well. The task was two-fold: finding groups with at least one hundred persons writing in French dedicated to the seven topics: music, funny shows/entertainment, sport, news reports, education/culture, politics and religion. The group had to be active, that means members interact/comment very often preferably with different age groups. The same had to be repeated with an Arabic–speaking community. I have created a 'neutral' (rather fake) facebook group to maximise my chances to be accepted in the groups. Indeed, many group administrators look at the profile of the person before accepting. My neutral profile was unbiased; I did not give details about my profession, where I live and my status. This decision was taken once I have been rejected from a religious group because I was "fond of music" in the admin's words.

This issue happened another time in a group about politics which could not accept me because I was following a page of their opponents. Therefore, it was sometimes complicated to be part of a group, therefore, the fake profile allowed me to edit my information when I needed and also to be friend (or unfriend) with some members.

Also, some groups I jointed were closed and others open to the public with no invitation required before being accepted.

### 3.5.2.3.2        Sample Interview

Once the questionnaire was designed, I wanted to test it by making a sample interview in order to verify the reliability of the questions. Since the questionnaire was intended to be distributed to large population (700 persons for Arabic speaking

community + 700 for French speaking community), it was important not to be mistaken, as suggested by Cassidy who advises so to make it maximally effective (Cassidy, 1953).

This is inspired from the work of Labov (1981) who coined the term "The Sociolinguistic Interview," defined more narrowly here as a methodology developed within the Labovian variationist paradigm with the goal of systematically eliciting variation across contextual styles for use as the primary evidence for sociolinguistic stratification and linguistic change. A strict definition allows for an emphasis on the specific utility of data gathered from the Sociolinguistic Interview in relation to other recordings of naturalistic speech and is meant to stress the importance of making informed methodological choices when gathering sociolinguistic interview data.

As I had many friends in my facebook contact list, the only condition was to be a facekook user. Therefore, I met face to face those friends and conducted the interview without any bias. The interview developed later as formal and informal , in both face-to face and non face-to-face context. Some were family members and others students or real friends. The questionnaire was adapted each time before having the final version. The informants knew that it was for my doctorate/ research purpose and again, no consent was needed because no name was to be revealed through this study. The age group was majorly 20 to 30's persons mainly women. The language was spontaneously used, that means, the question was asked in French or Arabic then explained in Algerian Arabic. After asking 30 persons, the final version did not require any further explanation as the questions were set clear in three major languages; Arabic, French and English.

In his writing, Scholl considers the ethnography of writing as a neglected side aspect of the ethnography of communication, which has fortunately gained in popularity only with the study of Internet literacies (Scholl, 2013). He cites the example of Danet (2001) who summarises the main questions of the ethnography of writing as follows:

"Who uses writing for what purposes? What genres and subgenres of texts are recognized, and how do they develop? What media are considered appropriate for which kinds of messages, and what are the norms governing usage in the various genres?".(Mallinson, Childs, & Herk, 2013:11).

This methodology of making interview samples before setting the final version of the questionnaire and thus conducting a survey was also used by Baym , in a similar sociolinguistic study of Computer Mediated Communication of humour analysis (Baym, 2006).

There is no need to set the all the versions of the interview since the questionnaire set in the survey appendix is the official version used.

In addition, other studies(Wislon & Stapleton, 2010)have recently adopted this methodology like emphasis on sociolinguistic features of big VS small models for narratives, stance and interaction. One example is the study of stance-shift, a corpus-based, computer-mediated coding of 24 stance variables (taken from the burgeoning literature) as they shift in frequency across successive standardised interview segments which can support the combination of sociolinguistic analysis into studies of language and communication in other disciplines (Lord, Davis, & Mason, 2008).

In a workshop for the New Ways of Analysing Variation, Mallinson, Childs, and Van Herk (2013) identified approaches to interviews "that mitigate concerns surrounding the collection of language data and/or used other methodological approaches to adapt to social and technological changes," including:

- Ethnographic interviews that obtain language data informed by relatively long-term participant observation within a community.
- Interviews that differ by structure, as when community members are interviewers, participant-recorders, or otherwise co-participants.
- Interviews that differ by topic, as when data are collected for non-language oriented purposes, whether research driven or not.

- Speaker-generated online data produced in contexts where linguists have not been involved.

### 3.5.2.3.3      **Survey and Questionnaire**

The main investigation of this research pre-supposes that when online, people would unconsciously seek comforting, i.e social support, whatever the topic of the community they choose to enroll in (music, politics, sport…etc). As stated in the literature review section, Social Support is grouped into 4 categories following House (J. S. House, 1981) which was later meant to be measured by (S. Cohen & Hoberman, 1983): Tangible, Belonging, Self-esteem and Appraisal.

Cohen et al. (1985) developed the Interpersonal Support Evaluation List (ISEL) which includes 10 to 12 items for each of four scales designed to measure the four categories of SS, widely used in general population surveys.

In order to answer the main research question, a survey was needed. Taking into account systematic observation, structured interview and note taking, the survey has been adapted in a closer form of the measures used in the work of (Wong & Ma, 2016). See appendix.

When constructing the list of questions, some points were considered:

- Ambiguous and technical terms were avoided as much as possible in order not to confuse the participants.
- A choice of answers was provided to be chosen from, not allowing any extra information from the participants.
- The questions administered to the participants were concerned with the interests of the facebook users.
- The questions presented to the sample population were clear in meaning.

In setting the questions, two types of questionnaires exist: structured and unstructured. The model followed in this investigation is the structured one.

Also known as closed-ended, fixed choice and restricted form, informants are offered pre-selected responses. Response is defined by an answer format from which the informants have to select what best reflects their opinions.

The scales for such responses can be single response, dichotomous responses (generally 'yes' or 'no' answers), or polytomous response where informants have more than two options (Adèr, 2008).Responses can also be scaled questions, rated from strongly agree to strongly disagree, very good to very bad.

In the study of Wong and Ma (2016), the survey of Social support was also adapted from the one of Cohen et al.,(1985) to test OSS into six (06) questions distributed. In this study, the same method was followed, but the number of questions was set to eight (08) for more accuracy as in the table below:

| Online Social Support (OSS) (Cohen & Hoberman, 1983) | |
|---|---|
| OSS3 | When I feel lonely, there are several people in online community I can talk to. |
| OSS4 | If I needed an emergency loan of $500, there is someone in online community I could get it from. |
| OSS5 | There are several people that I trust to help solve my problems. |
| OSS6 | If I were sick, I could easily find someone to help me with my daily chores. |
| OSS7 | There are several different people I enjoy spending time with. |
| OSS9 | When I need suggestions on how to deal with a personal problem, I know someone in online community I can turn to. |

**Table 3: Online Social support survey adapted by Wong & Ma, 2016.**

The questionnaire comprises one question about gender, one about age and eight questions about social support as follows:

- Question 3 and 4: represent Tangible Support
- Questions 5 and 6: represent Belonging
- Question 7 and 8: represent Self-esteem

- Question 9 and 10: represent Appraisal

So, every category of SS was investigated through two questions unlike other studies which devoted only one for it. This is done for more consistency and validity of the results later on.

The questionnaire was then sent to different group admins in order to publish it in the group wall. Answers were automatically directed to Facebook account for analysis.

The questions were in a likert-scale of five points from strongly disagree to strongly agree.

A scheme of the expected answers was as follows:
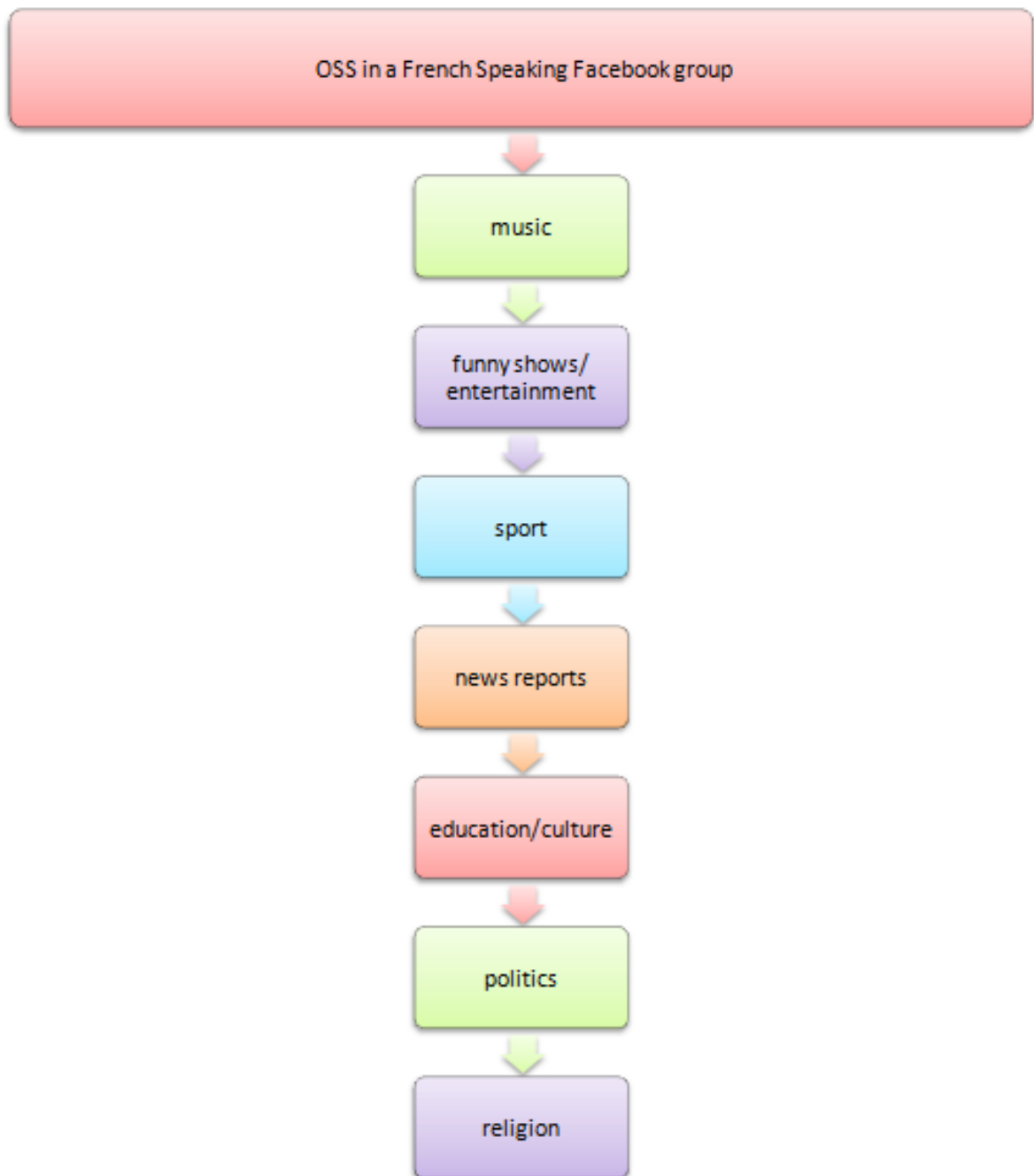
**Figure 17 testing OSS in every Facebook group.**

There was an issue mentioning the long URL of every facebook group as some expired and other broke in email postings, so a solution was to use the website http://tinyurl.com in order to make shotcuts of the links.

### 3.5.2.3.4    Informants in Algerian French Speaking Facebook groups

In this section, peculiarities about the different facebook groups will be discussed according to the selected topics.

### 3.5.2.3.4.1    Facebook Group of Music

In order to answer the first research question, a facebook group was to be selected. This group should have a majority of French speaking members who are all Algerian users from different age groups. I first sent an invitation to the group administrator and then came to interact with the different members. I sometimes posted on the wall and frequently made 'likes' and replied to comments of the group. In order to be very active, I started some 'bets' about the next song, or started some games to elucidate popularity. One of them was to give a short biography about a singer and then waited for answers to uncover the personality. I added some clues and expressed happiness for the winner with lot of emojis. This made my participation awaited and popular among the members. Once this step was reached, I decided to ask the admin to post my survey on the group wall. The admin asked the members to help a student complete her investigation without further details. Members responded positively and the rate was different depending on the days. Some days I could collect twelve answers at once and others only one.
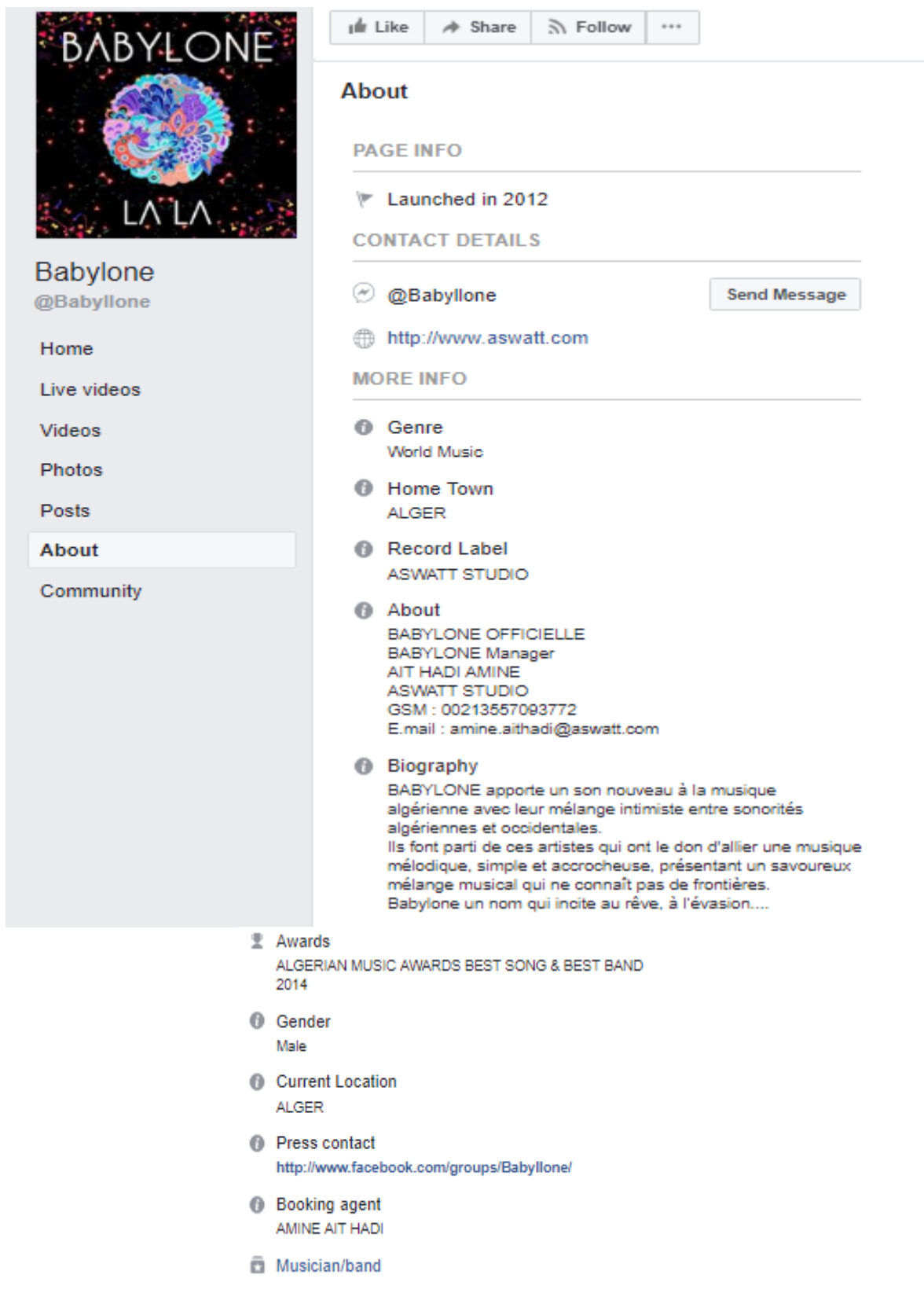
I continued being active, participative and answering different comments, until I reached 100 answers. After that, I thanked the members and informed them of my absence due to time constraints.

For music, the facebook group selected is called "Babylone" in the following link:

**https://tinyurl.com/y8eg2qja**

On the date of January 07th, 2018, a total of 131,798 people were following this page.

Here is a presentation about the group as detailed in the 'about' section:



**Figure 18: facebook group about music**

For organisation matters, a table was set apart for different answers collected

| Gender | AGE | Tangible Support | | Belonging | | Self-Esteem | | Appraisal | |
|--------|-----|--------|-----|-----|-----|-----|-----|-----|-----|
| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 |

**Table 4: questionnaire for OSS in Music**

Collected answers were to be treated later on in the fourth chapter.

### 3.5.2.3.4.2 Facebook Group of Funny shows/Entertainment

The same procedure was followed as mentioned in the Music group with the same table for data collection.

The facebook group is named "Dahk'Man" accessed through: https://tinyurl.com/yax4tyul with  5,799,704 followers.

Below is a description of the group:
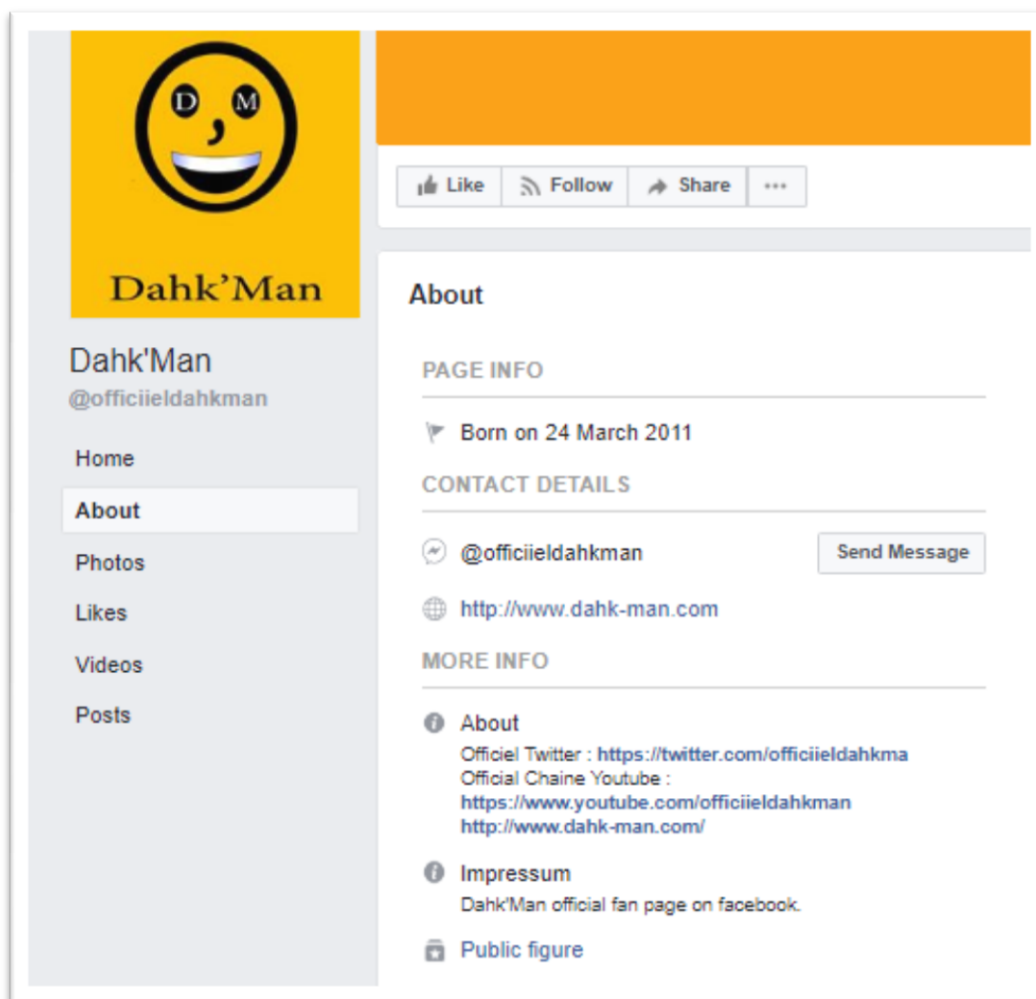
**Table 5 facebook group about funny shows/ entertainment**

### 3.5.2.3.4.3        Facebook Group of Sport

The group comprised many members from different age groups both males and females. The same procedure was followed in the above groups. The facebook group selected is called "FAF-Fédération Algérienne de Football " accessed through the following link: **https://tinyurl.com/yayozqnp**

On the date of January 07th, 2018, a total of 21,171 people were following this page.

In order to be active, I follwed the timeline and asked many questions. I introduced myself as a person fond of football who does not know much about it.

The members were very helpful while some joked at my 'simplistic' questions and others did not reply at all. Again, once I collected 100 responses, I left the group.

Here is a presentation about the group as detailed in the 'about' section:
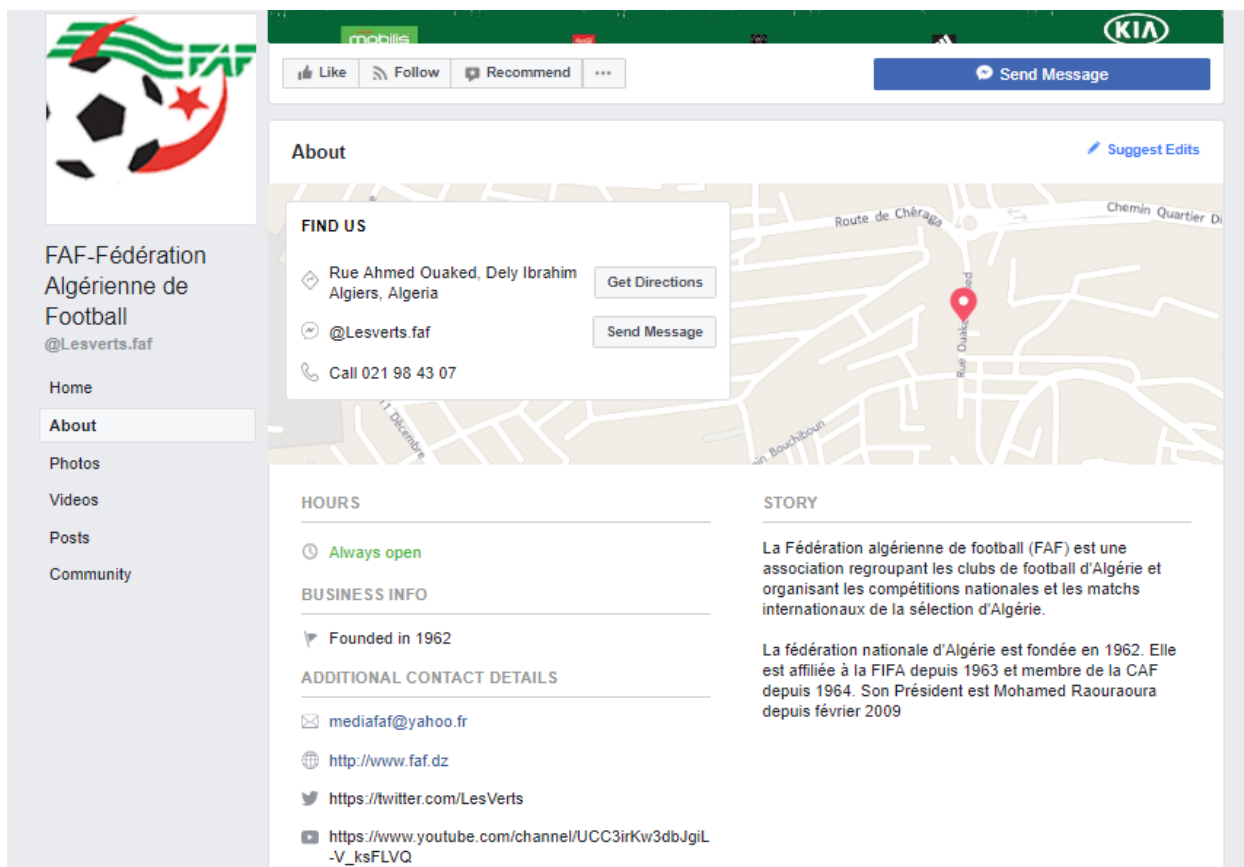


**Table 6 facebook group about sport**

### 3.5.2.3.4.4 Facebook Group of News reports

This page represents an official national newspaper with a facebook group named "Liberté-Algérie" accessed through the following link:

**https://tinyurl.com/y89wo8ex**

On the date of January 07th, 2018, a total of 290,168 people were following this page.

Here is a presentation about the group as detailed in the 'about' section:



**Table 7 facebook group about News reports.**

### 3.5.2.3.4.5        Facebook Group of Education/ Culture

In this group, the answers did not comprise lot of persons from the less than 18 category. Also, the other age categories did not answer equally. So, there was a disparity in the age group but the number of 100 was reached.

The facebook group selected is called "L'ALGERIE A TRAVERS SON HISTOIRE, SES COUTUMES ET SES TRADITIONS". The group presents different facets about the Algerian culture ranging from customs, traditions, typical outfits, arts…etc.  With every picture or video posted, a historical comment about the context is mentioned.

In my way, I made a contribution by publishing pictures of Algerian cities from the past, and posted them to elicit discussions. The group is accessed through the following link:

**https://tinyurl.com/y8c28zjs**

On the date of January 07th, 2018, a total of267,917 people were following this page.

Here is a presentation about the group as detailed in the 'about' section:



**Table 8 facebook group about Education/culture**

### 3.5.2.3.4.6        Facebook Group of Politics

For Politics, the facebook group selected is called "Chou-chouf" accessed through the following link:https://tinyurl.com/ybv5l9wz

The group is very popular where people interact spontaneously often with humour/sarcasm. The members give their opinion about the different events that happen in the country. I did so, by agreeing or not about the different events or by giving my point of view.

On the date of January 07th, 2018, a total of 1,502,845people were following this page.

Here is a presentation about the group as detailed in the 'about' section:



**Table 9 facebook group about politics**

### 3.5.2.3.4.7        Facebook Group of Religion

For religion, the facebook group selected is the one of a popular person in the media called  "Kamel Chekkat" found in the following link:

**https://tinyurl.com/y926u9v8**

Kamel Chekkat is an Algerian theologian who is versed in the Islamic religion. He became a public figure thanks to a radio talk show (in partnership with Malika Lafer) on the local radio (channel three) 'Alger Chaine trois'. He also appears on the local religion television channel on Fridays.

On the date of January 07th, 2018, a total of 121,546 people were following this page.

The 'about section' of this religious page does not contain much details, for authenticity matters, a snapshot is taken on the same date.

**Table 10 facebook group about religion.**

### 3.5.2.3.5 Informants in Algerian Arabic Speaking Facebook groups

#### 3.5.2.3.5.1 Introduction

Needless to repeat, the same procedure is to be followed but this time for the Algerian community speaking with Algerian Arabic on facebook. The same research tools were used; observation, note-taking, questionnaire, sample interview and a large survey was planned.

There was no difference in the methodology, except that the facebook groups would be different now. Below is a description of the informants of the Algerian Arabic speaking facebook groups. Once the data collected in both FR and AA online communities, the second research question will be highlighted with an easiness of comparison between both Algerian online communities.

### 3.5.2.3.5.2          **Facebook Group of Music**

The facebook group is named "الموسيقى الجزائرية -ALgerian Music" accessed through: https://tinyurl.com/y7x48pxj

On the date of January 07th, 2018, a total of 16,804people were following this page.

This page is related to Algerian music in general be it in French, Arabic or Tamazight (Berber).

Although many comments are posted in the other languages, the biggest majority writes in Arabic, the reason why this group was chosen. Other non Algerians are also in the group, so for reliability, one is not sure that all the answers obtained from the questionnaire were filled in by Algerians. As a way to divert this issue, the link posted was in Arabic only without the offered translation in French and/or English. This decision was generalised for all the other AA speaking Facebook groups. Although this does not grant total reliability, but with a number of 100 respondents, it would make sense for the rest of the investigation.

Below is a description of the group:
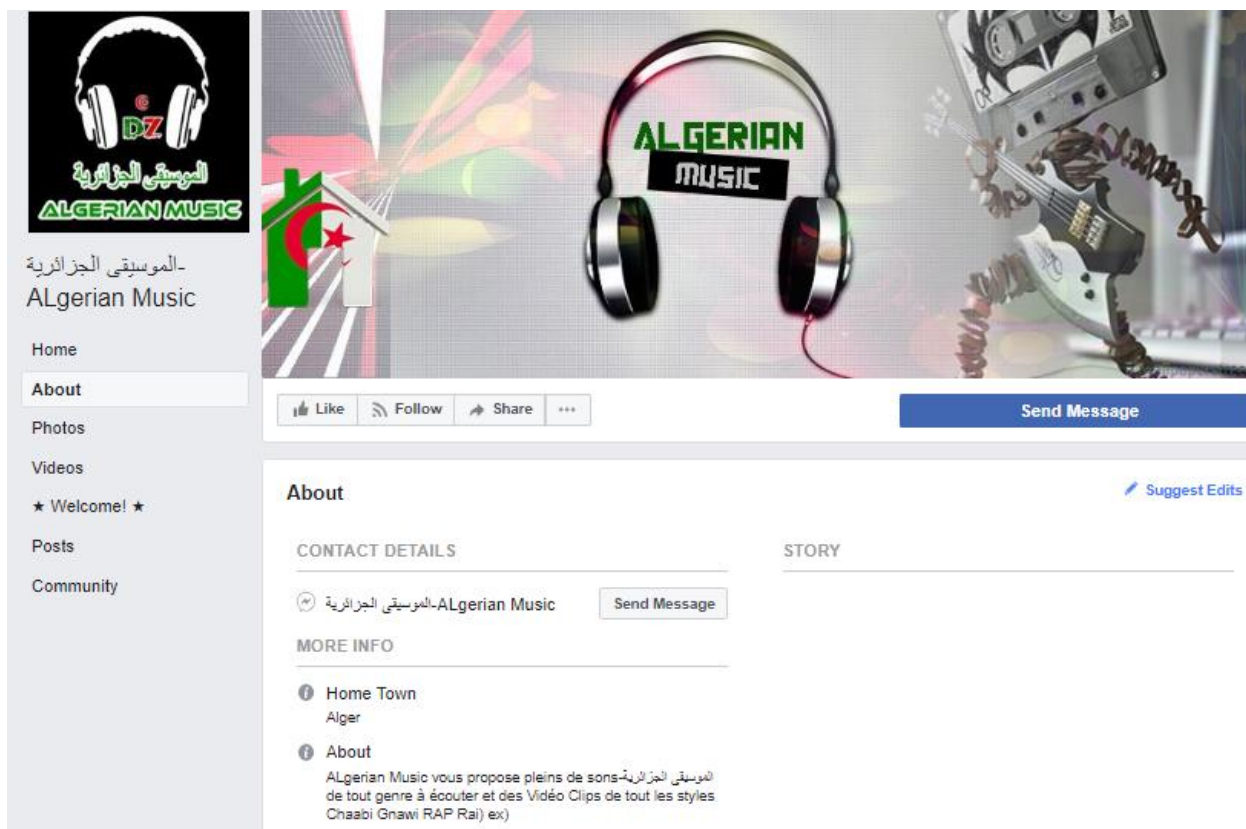
**Table 11: Algerian Arabic Facebook Group about Music**

### 3.5.2.3.5.3    Facebook Group of Funny shows/ Entertainment

The facebook group is named "El dahk algerien / الضحك الجزائري" accessed through: https://tinyurl.com/yay73u2a

On the date of January 07<sup>th</sup>, 2018, a total of 902,692people were following this page.

This group is dedicated to comedy and entertainment shows or funny events that happen in Algeria. It was selected because all the age groups are present and the admin is very responsive. Funny videos or pictures are posted and people leave comments or emojis . I did so in order to have a virtual 'presence' within the community. The responses of the questionnaire took a long time to be answered as followers did not show any interest in spending time. Again, I made an active

contribution and contacted many members in the private chat before getting 100 answers.

Below is a description of the group as stated in the 'about' section:



**Table 12: Algerian arabic Facebook Group about Funny shows/ entertainment**

### 3.5.2.3.5.4        Facebook Group of Sport

The facebook group is named "Dzair Sport" accessed through: https://tinyurl.com/yd9bhrzw

On the date of January 07th, 2018, a total of 249,372people were following this page.

Although the name of the group is related to sport, the main topic is about Algerian football. Because the admins post in Arabic, the majority of the answers are in Arabic although the presence of the other languages is not to be neglected.

The 'feminine' presence was limited, so in asking questions, I had many answers as the members encourage every one to join in.

Below is a snapshot about the group as reported in the 'about' section:
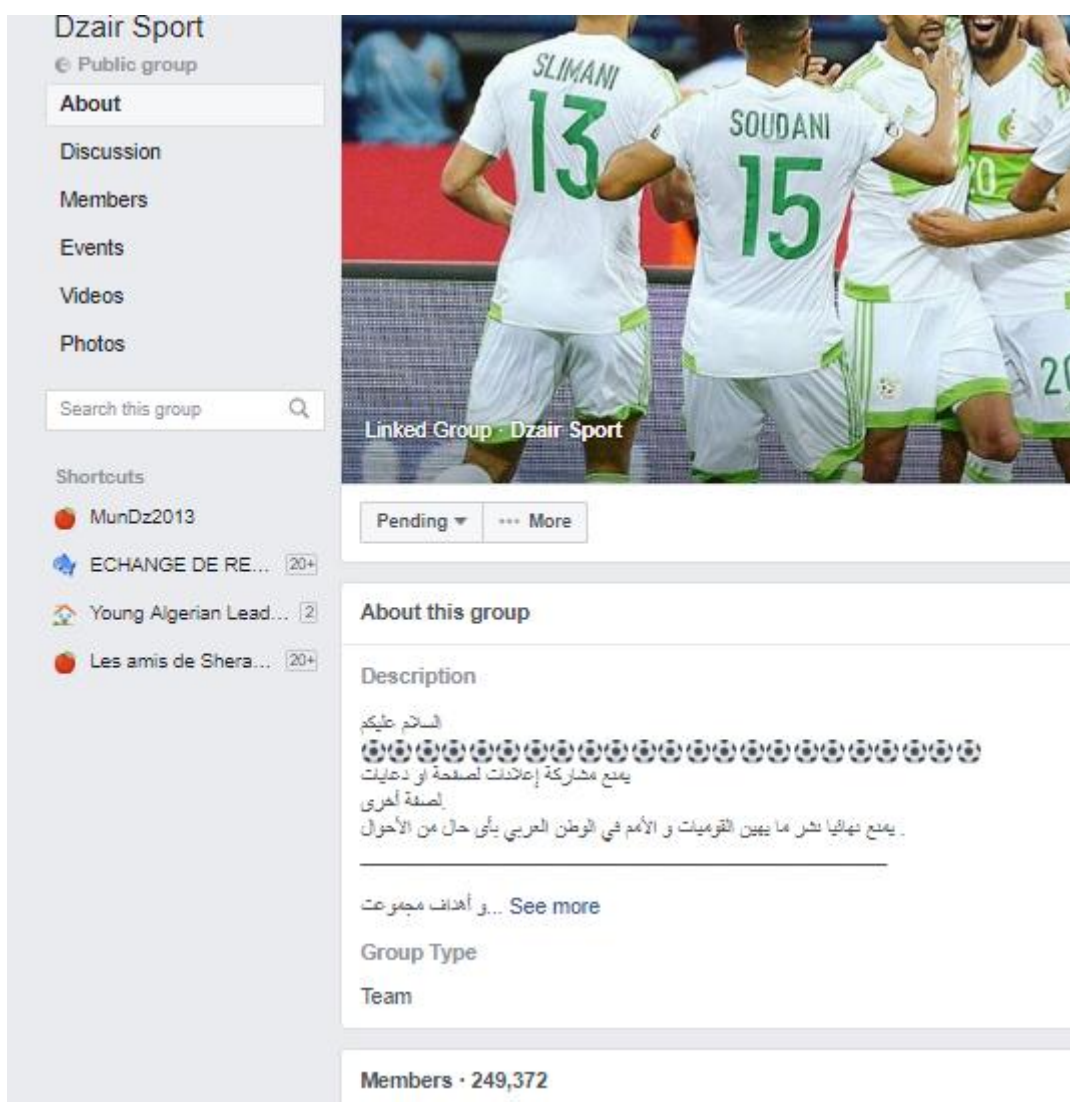


**Table 13 Facebook Group about Sport**

### 3.5.2.3.5.5          Facebook Group of News reports

The facebook group is named "قناة الشروق / Echourouk TV" accessed through:https://www.facebook.com/Echourouk.TV/

On the date of January 07<sup>th</sup>, 2018, a total of 274,855 people were following this page.

Even if some people qualify this channel more like representing a 'tabloid' than real media, it is very popular judging the number of likes, shares and followers of the page.

This page is organised by journalists of the same channel which is broadcasted in the local television, although it is not national but a private one. Some people often claim that not all the posted info is truthful, but what counts for this study is that people are very reactive to the comments and converse (majority) in Algerian Arabic. Sometimes not only the news are shared, but also some video sketches or funny situations. Surprisingly, this group is the one where 100 answers were collected in less than one month. This is could be explained by the fact that I became 'friend' with the admin who asked one day for a proof-check of an English translation of an article, and I favourably accepted to help.

Below is a description of the group:

**Table 14: Facebook group about News reports.**

### 3.5.2.3.5.6      **Facebook Group of Educaction/ Culture**

The facebook group is named "مخطوطات الجزائر/Manuscripts of Algeria" accessed through: https://tinyurl.com/y9bqtmak

On the date of January 07th, 2018, a total of 3,380people were following this page.

I personally enjoyed joining this group and recommended it to many of my friends who followed me later on.

This group makes an effective contribution informing the mass about Algerian manuscripts and their contents. The admins are researchers who give trusty information about the context of every picture posted mentioning the source. By joining the group, I became very curious about this cultural side of my country and asked comments, answered to posts like the other ones. Although it took me

time to have the hundred answers back, I did not leave this group and continued to participate.

Below is a description of the group:



**Table 15: Facebook Group about Culture**

### 3.5.2.3.5.7          Facebook Group of Politics

The facebook group is named "سياسة بلا حدود=الرأي الاخروالرأي"related to politics in Algeria, accessed through: https://tinyurl.com/yd4fgp9l

On the date of January 07<sup>th</sup>, 2018, a total of 1,151 people were following this page.

In this group, both pro and anti government ideas are included as the admins claim a neutral position allowing everyone to express its opinion. Also, a position of a national pride is encouraged discussing about the Algerian martyrs during the French revolution in addition to the local events.

I made a contribution when possible and was in contact with many members to collect the hundred responses.

Below is a description of the group:



**Table 16: Faceboo, Group about politics**

### 3.5.2.3.5.8        Facebook Group of Religion

The facebook group is named "         الدين النصيحة" accessed through **https://tinyurl.com/y9yygb5s**

This group's aim is to attract members following the Islamic religion. The admins are Algerian people who report verses of the quran, or sayings about the prophet (peace upon him). They discuss events happening in the Algerian society from a religious angle. Also, they give their opinions and tips of advice about Islam in general.

On the date of January 07th, 2018, a total of 326 members were following this page.

Below is a description of the group:



**Table 17: Facebook Group about Religion**

### 3.5.2.4    Summary of The First Research Question

Having collected all the data resulting from the survey, a total of 1400 questionnaires was to be collected comprising 700 for the French speaking facebook groups and 700 for the Algerian Arabic speaking groups.

The answers collected will help to know which category of social support is dominant in every group.

The results will be discussed for a significance of the study in the analysis section of Chapter four.

### 3.5.2.5    The Second Research Question

The second research question of this investigation is more linguistic, enquiring if there is any difference in the dominating types of OSS for Algerian Arabic and French speaking communities?

Beyond language, when a person who is multilingual chooses one variety and not another is always motivated by an underneath factor. This could relate to identity, nationalism, pride, power or belonging (or exclusion) from a community as many studies are witnessing this event, especially on social media (Taylor-Leech, 2012; Warschauer, Said, & Zohry, 2006).

Once the 1400 questionnaires collected, a comparison between the topics will be possible in both varieties of the language. A preliminary table will be like :

| **Predominant Category of Online Social Support (Tangible, Belonging, Self-Esteem and Appraisal) in every Topic** | | | | | | |
|---|---|---|---|---|---|---|
| FR Music | FR Funny shows/Entertainment | FR Sport | FR News reports | FR Education/culture | FR Politics | FR Religion |
| % of the OSS category | % of the OSS category | % of the OSS category | % of the OSS category | % of the OSS category | % of the OSS category | % of the OSS category |
| AA Music | AA Funny shows/Entertainment | AA Sport | AA News reports | AA Education/culture | AA Politics | AA Religion |
| % of | % of the OSS | % of | % of | % of the OSS | % of | % of |

| the OSS catego ry | category | the OSS catego ry | the OSS catego ry | category | the OSS catego ry | the OSS catego ry |
|---|---|---|---|---|---|---|

**Table 18: Predominant category of OSS for all groups in both French and Algerian Arabic**

Based on the results, the analysis will be made. If there will be a significant difference between the percentages within a topic, for example Fr Music and AA music, this difference will be studied more thoroughly and explained in the light of the literature. In case where there will be no difference, this will not be given much importance.

### 3.5.2.6    The Third Research Question

Once the data collected, other comparisons will be possible. In this context the third research question is as follows:

RQ3: Is there a relationship between online social support, language use, gender and age ?

The social factors of age and gender will be compared in order to know the impact and the influence of those types on online social support.

Depending on the rate of the percentages obtained, we could investigate every category of online social support based on age and gender for every language like in:

| Age and Gender in Fr groups | | | | | | | |
|---|---|---|---|---|---|---|---|
| Tangible support | | **Belonging** | | **Self-Esteem** | | **Appraisal** | |
| Gender | **Age** | **Gender** | **Age** | **Gender** | **Age** | **Gender** | **Age** |
| **%** | % | % | % | % | % | % | % |

**Table 19: Age and Gender in French speaking groups**

| Age and Gender in AA groups by Category of OSS | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Tangible support** | | **Belonging** | | **Self-Esteem** | | **Appraisal** | |
| Gender | **Age** | **Gender** | **Age** | **Gender** | **Age** | **Gender** | **Age** |
| **%** | % | % | % | % | % | % | % |

**Table 20: Age and Gender in Algerian Arabic speaking groups by category of OSS**

Another possibility is to look for these factors by topic for every language variety like in:

| Age and Gender in FR Groups by Topic | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Music | | Funny shows/ Entertainment | | Sport | | News reports | | Education/ culture | | Politics | | Religion | |
| **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** |
| % | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** |

**Table 21: Age and Gender in French speaking groups by topic**

Also:

| Age and Gender in Algerian Arabic Groups by Topic | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Music** | | Funny shows/ Entertainment | | Sport | | News reports | | Education/ culture | | Politics | | Religion | |
| G | **A** | **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** | **G** | **A** |
| **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** | **%** |

**Table 22: Age and Gender in Algerian Arabic speaking groups by topic**

### 3.5.2.7   Ethical Considerations

As any sociolinguistic research, this investigation requires human beings involved as informants. Therefore, science requires ethical guidelines to be adopted when subjects are persons. In this sense, ethics policies were established in order to ensure that a researcher is handling data sensitively as Wray and Broomel (2006) state that: " (Respondents should)have sufficient information to make an an informed decision about their participation" (p.173)

Also, Tagliamonte (2006:438-39) indicates that the main ethical guidelines for collecting informal interviews remain constant:

- Consent for audio recordings
- Guaranteed anonymity
- Voluntary participation
- Access to researcher and research findings

As this study did not involve audio recordings, so no consent was needed.

Anonymity was respected for all the respondents except for snapshots of facebook groups which were pasted in this chapter to ensure authenticity. In no case a particular member was identified.

Participation was voluntary as the researcher spent considerable time to collect the data of the questionnaires until the number of hundred respondents was attained. Time consuming was a major issue in this investigation.

Access to researcher is always possible through facebook pages , although some fake ones were used, but there has been a mail redirection every time. Besides, this research will be published online with all the official information of the researcher as well as the results .A link will be provided in the appendix section for the published paper.

As for anonymity, many methods have been highlighted by researchers to ensure this task. Wray and Bloomer (2006) advise:

- The use of multiple choice responses rather than open ended questions.
- Respondents should be encouraged to write in capital letters in order to make their writing less identifiable.
- Use of online survey tools.

In the case of this doctorate, the first and last point were strictly respected as there was no need to develop the second point.

### 3.5.2.7.1    Ethics in Social Media

In social media, the context of the study is different, since people are not physically met (non face-to-face interaction) and we can never be sure that the answers were from the identified persons. Thus, other conditions have been taken into consideration when conducting a research on the web, involving social media like facebook groups.

On the role of the researcher on facebook, D'Arcy & Young, (2012) do not deny its implication as in any ethnographic study, but at the same time they insist on its long observation and intrusion in the groups as in. *" ... while the traditional Labovian mode of inquiry endorses a less integrated approach...from a cross-disciplinary perspective, however, the issues driving investigation of social networks are behaviour-based (e.g. friendship patterns, political convictions, language practices)"*.

More importantly, they states that "We therefore assume a protocol requiring (prolonged) observation of some group of individuals" (p.5)

### 3.5.2.8    Challenges in Data Collection for CMC Research

Bolander and Locher (2014) and Beißwenger and Storrer (2008) discuss general issues and challenges for corpora of publicly available CMC data. When dealing with non-public data the stated issues of data acquisition for CMC corpora become more demanding: legal concerns add to ethical issues already mentioned in the previous part, and technical demands related to authentic data retrieval and the

linking of mixed resources (i.e. language data and sociolinguistic meta information) get more challenging.

For technical and legal reasons of data acquisition, interaction between the user and the researcher becomes an inevitable necessity. Whereas the legal situation of the research usage of user-generated language data is still under debate for generally public data, the trend leans towards seeking user consent. User-generated language data is always bound to copyright restrictions therefore making every modification, (re)publication or citation is potentially problematic (cf. Baron et al., 2012).

Furthermore, researchers should also respect ethical considerations when doing data acquisition of private personal data, demand that such consent is to be received in advance and that the user data is anonymised (Beißwenger and Storrer, 2008).

For non-public data, these legal and ethical issues are of course even more critical. But also technical constraints make it necessary to interact with the user, to gain access to the data. Most media platforms therefore offer interfaces for third parties to obtain access via an explicit permission from the user. With regard to this, a user's consent for the usage of private data is legally – and often technically – necessary.

Finding a sample of population for the corpus is another problem that, in fact, many corpus creation projects face. There are different approaches in gathering the otherwise non-accessible private data, most of them asking for individual submissions of language data by the users. There, participants of the project need to register and send single threads of conversation via mail, following detailed submission guidelines or by using private chat.(Frey, Stemle, & Glaznieks, 2014).

### 3.5.2.9    Limitations of the Study

Once all the surveys gathered, the majority in electronic format and some others on paper, the next step was to transcribe the results. A suprising one was that

the factor 'age' was nor reliable. Many persons in the group of music Fr, music Ar, Sport Fr, sport Ar, funny shows fr, funny shows Ar, entertainment…etc mentioned a different age then theirs. As an intrusive researcher, I was taking part in all the groups and discussions and was 'certain' that this population was young with a majority not exceeding their thirties. Surprisingly, for the age question, many answered an age of 50, 60,70,90 which was not true. To go further, an average estimation was done and the result was that more than 70% did not mention their age or gave a fictitious one.

Based on this condition, I decided to skip the factor 'age' and focus on 'gender' only. After collecting such data in a longitudinal through more than 5 years, it was impossible (almost) to reconduct the study again from the beginning (due to time constraints).

In literature review, I have noticed that other researchers already faced this 'challenge' once sampling a population 'behind the screen'. Studies in CMC are representative at the condition to have a quantitative and a qualitative analysis altogether in addition to good quality statistics treatment whatever the social factors 'age', 'gender', 'ethnicity'…etc which may become 'blurred' in CMC (Paolillo, 2001). These conditions will all be respected in the following study and omitting age will not alter the hypotheses of the study.

## 3.6 Conclusion

In this chapter, the methodology to be followed for the validity of the research has been exposed in the light of literature dealing with computer mediated commuinication. Meanwhile, although this investigation is related to sociolinguistics, different methodologies have urged the need to use a blended data methodology since the context is not a classical one, but related to computer mediated discourse.

*CHAPTER FOUR*

# *DATA ANALYSIS AND DISCUSSION*

### 4.1.Part One: The Quantitative Study

While chapter three provides the methodological design of the current study, this chapter exposes thorough analysis, discussion and interpretation of the results. As this study is articulated around three research questions, three subsequent parts make up the construct of the chapter. The first one relates to the quantitative study followed by the qualitative study which comprises two sub-sections. Accordingly, each part is meant to provide answers to the related question.

### 4.1.1. Introduction

In an attempt to answer the first research question, a quantitative analysis had first to be done. This question posits that:

- R1: when online, people would unconsciously seek comforting (social support) whatever the topic of the community they choose to enroll in (music, politics, sport…etc) .What kind of Social Support is sought for in every topic? Appraisal support, belonging support, tangible support or/and self-esteem.

Before verifying if people seek social support and which category, we first had to determine a list of domains. The 'why' and 'how' of this step have already been explained earlier (see chapter three, the quantitative study) and the results will be displayed, analysed then interpreted in this section.

### 4.1.2. Results and Discussion

As stated above, the results of the quantitative study will be displayed and discussed in the light of literature.

### 4.1.2.1.    Popular Topics for Algerian Web Users
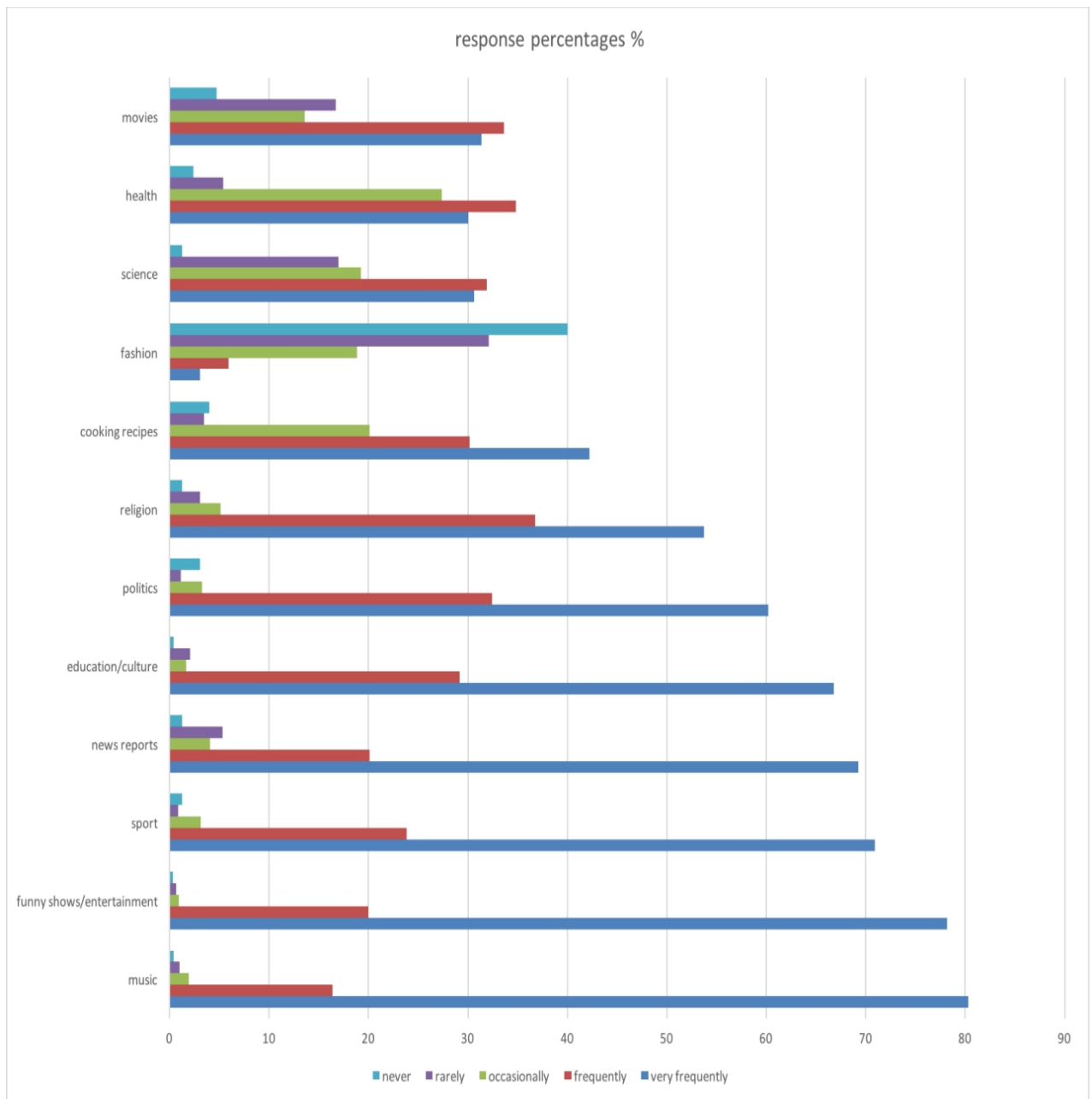


**Figure 19: Popular Topics for Algerian Web Users**

This figure shows the percentage of answers collected from 3000 Algerian web users. The *x*-axis (horizontal line) represents the percentage of people (up to 100%) while the *y*-axis (vertical line) represents the list of all the topics under evaluation namely: music, funny shows/entertainment, sport, news reports, politics, religion, cooking recipes, fashion, science, health and movies. Answers vary from never, rarely, occasionally, frequently to very frequently.

Once the histogram made, only answers with 'very frequently' (dark blue) have been selected. The resulting list comprises then, the most popular topics for Algerian web users as follows:

- Music
- Funny shows/ entertainment
- Sport
- News reports
- Education / culture
- Politics
- Religion

If the rate of 'very frequently' answers was attributed to two categories only, we would have chosen some others from the 'frequently' bars. But there was no need to extend this list which already comprised 7 topics. Notice that the other results have been discarded because of the volume of data in this investigation, but they could be used for another quantitative study (See the table with the total in the appendix).

Thanks to this large survey, the qualitative research will be restricted to these seven mentioned domains.

In order to verify if social support exists and which category is predominant, the qualitative study would follow and investigate these popular domains only.

### 4.1.3. Data interpretation

The first research question is in fact split into (a) knowing the popular topics then (b) investigate social support in relation to gender and language used. At this level, we still cannot verify the validity of the first research question and its hypothesis.

As for the methodology followed, this goes in line with what research in quantitative methods state. This way includes surveys, Likert-type scales and follow-up interviews as suggested in the study of Blake and Cutler in measuring educators' language attitudes.(Blake & Cutler, 2003)

Also, this method is no special but very popular once working in online environments. Recent work in mediated communication suggests using cyclical procedures of blended data collection.

It begins with observation, followed by screen data and preliminary analysis (taking snapshots for our case), then establishing contact with selected participants (Androutsopoulos, 2015).

All these requirements were met in the current investigation. This is important for the validity and significance of the study as Johnstone states that by following these steps, one would verify how" and "why" certain things happen (Johnstone 2000: 37).

An interesting inquiry from an external reviewer was "why are social factors of the participants (age, gender, origin…etc) absent"? While the answer is very simple:

-In an online environment like ours, social cues (see chapter one for literature) are different in comparison to face to face situations. In this context, Paollilo (Paolillo, 2001)encourages researchers to put aside the social factors in public CMC studies when collecting data, and then verify the ones that are needed with another research tool (survey, questionnaire, interview…etc). This was the case in this research also since the focus was on the topic in this quantitative study discarding age or gender of the participants.

Additionally, Paollilo makes a special mention of the social identities online and suggests other ways to verify them, for example first collecting posts from the network, then conducting an interview as stated below:

"…Digital  communication, especially of the public type, is often carried out anonymously and among interlocutors who lack information for mutual social categorization. This is a serious problem for any sociolinguistic analysis that depends on clear-cut socio-demographic information (gender,social class, etc.), but it can be addressed or circumvented in a number of ways. First, researchers can contact relevant users and collect socio-demographic information post hoc, though doing so is not always practically feasible, especially in public CMC" (Paolillo, 2001)

For other researchers, this way of collecting data 'behind the screen' would offer an advantage of anonymity which reduces social pressure and likewise, reduce social desirability bias as mentioned by (Paulhus, 1984) ).

## 4.2.Part Two: The Qualitative Study
### 4.2.1. Introduction

Now that the first research question has resulted in isolating the most popular domains of Algerian facebook users, the next part is to look for what kind of social support exists or is dominant in every category. So, first an intra-category will be done and then this dominant category will be linked to the factor 'gender'.

First intra-category in relation to gender will be done for all the facebook groups speaking in Arabic, and then the same study will be repeated for the facebook group of Algerians speaking in French. The last part would be a comparison and/or correlation between the type of social support, gender and language use.

For this purpose, a statistical tool was used, SPSS version 24 in order to analyse the results of the research questions with the Mann-Whitney-Wilcoxon test.(MWW)

### 4.2.2. Setting the Statistical Frame

As the likert scale used in this study is of 5 points, the Mann-Whitney *U* test will be performed in SPSS.

Also called, the Wilcoxon-Mann-Whitney test, it is a rank based non parametric test that can be used to determine if there are differences between two groups on an ordinal Likert dependent variable. Literature is very abundant and agrees to use the WMW test especially with a five point likert scale like the one of Winter & Dodou, who tested *t* test versus MWW for a five-point Likert Items. They concluded that the MWW is very powerful for validity and significance of the results as follows: "*MWW had a power advantage when one of the samples was drawn from a skewed or peaked distribution. Strong power differences between the t test and MWW occurred when one of the samples was drawn from a multimodal distribution.*"(Winter & Dodou, 2012).

This part includes literature that justifies its use is presented('Mann-Whitney U Test in SPSS Statistics | Setup, Procedure & Interpretation | Laerd Statistics', n.d.).

The Mann-Whitney U test is a non-parametric statistical technique used to analyse differences between the medians of two data sets.

This statistical technique examines the differences between two independent groups on a continuous scale.It is therefore considered a specific statistical technique that is significantly different from other non-parametric tests, primarily from the Wilcoxon rank test and Friedman test. The work is intended for all who are deeply engaged in empirical research, especially using the non-parametric tests.(Milenovic, 2011).

For example, this test can be used to understand attitudes (whatever the topic) where attitudes are measured on an ordinal scale, and differ based on gender, i.e., the dependent variable would be "attitudes towards a named topic" and the independent variable would be "gender", which has two groups: "male" and

"female"). Therefore, values need to be measurable on an ordinary scale comparable in size.

Mann-Whitney U is also used to test the null hypothesis, subject to both samples coming from the same basic set or having the same median value.

In education, the most commonly used criterion variables are gender (male, female), education (college, university), occupation (class teacher, subject teacher) and school environment (urban, rural). (Sheskin, 2007)where answers to these questions can be reached effectively using the MannWhitney U test.

For the Mann-Whitney U test to be applied, a number of assumptions need to be met. The most important are:

A. The dependent variable should be measured at the ordinal or continuous level. A popular example is the Likert scale with a 7 point choice from "strongly disagree" to "strongly agree". In this variable, numbers 3 (from 1 to 7) would represent an opinion unlike other questions where it would represent the number of students for example. So in this case, where opinions/answers should be transformed into numbers, likert and MWW test are valid with the use of the median. This represents the case of this study with Likert scale from 1 to 5 scoring different opinions.

B. The independent variable should consist of two categorical, independent groups. For instance, gender (2 groups: male or female), employment status (2 groups: employed or unemployed), smoker (2 groups: yes or no), and so forth. For this thesis, the independent variables are the Social Support categories (tangible, belonging, self-esteem and appraisal), gender (male, female), domain (fun, music, news, sport, education, politics and religion) and language (Fr and AA).

C. Independence of observations. It implies "...that each observation can be counted only once..."(Pallant, 2010). In other words, the observations may

not appear in multiple categories or groups and that data referring to one subject cannot affect the data of others. The above criterion also applies to other non-parametric techniques that have been studied by numerous authors(Gravetter & Wallnau, 2016; Peat, 2001; Pett, Lackey, & Sullivan, 2003).

Basically, there should be no relationship between the observations in each group or between the groups themselves. For example, there must be different participants in each group with no participant being in more than one group. This is the case of this study since it is composed of 14 facebook groups in total and every member in a group cannot be found in the remaining 13 to give his/her opinion (generally).

D. When the two variables are not normally distributed. In a study comparing gender, the number of males and of females there could be the same but they not from the same location. So, taking this as a sample population will not be very easy. What should be done is 'normalising' the sample with MWW to be able to compare the medians. This point is not very important in this work, since the sample is made of matched number of males and females all from the same society; Algeria.

Having developed the main assumptions to apply the MWW test, all the criteria are met to justify its use throughout this thesis.

### 4.2.3. Coding the Results

The survey collected a matched population of 50 males and 50 females and was distributed to seven domains in Facebook FR in addition to seven domains in Facebook AR.

Discarding gender and age (age was not chosen as explained earlier), the survey was composed of eight questions where every two represented a category of social support.

The first step was to formulate the mean (average) for every category in addition to the mean of the answers in a scale from strongly disagree to strongly agree.

With a total of five choices, the agreement values when using Likert scale ranged from strongly disagree to strongly agree. The mean was calculated for both males and females while answer 1 represented the mean of answers for strongly disagree, a mean near or just above of 3 would represent a neutral answer (neither agree nor disagree) and an answer around 5 would represent strongly agree.

In order to treat the data statistically, some codes were applied as follows

| Quest A: | Quest B: | Quest C: | Quest D: |
|---|---|---|---|
| Tangible support | Belonging | Self Esteem | Appraisal |
| Mean of Question 3 + Question 4 | Mean of Question 5 + Question 6 | Mean of Question 7 + Question8 | Mean of Question 9 + Question 10 |

**Table 23: codes used for the purpose of statistical analysis**

For all the facebook groups, statistics with WMW test will be performed in order to see if there is a main effect between the four SS categories. The next step is to depict the significant effects (if found) .

### 4.2.4. Results for SS Categories for French speaking Facebook Group

For the purpose of analysis, below are the results for of all the SS categories in relation to gender for the Facebook Fr group.

| | Gender | N | Rang moyen : | Somme des rangs |
|---|---|---|---|---|
| Q_A_FUNNY_FR | Males | 50 | 49.94 | 2497.00 |
| | Females | 50 | 51.06 | 2553.00 |
| | Total | 100 | | |
| Q_B_FUNNY_FR | Males | 50 | 50.25 | 2512.50 |
| | Females | 50 | 50.75 | 2537.50 |
| | Total | 100 | | |
| Q_C_FUNNY_FR | Males | 50 | 50.55 | 2527.50 |
| | Females | 50 | 50.45 | 2522.50 |
| | Total | 100 | | |
| Q_D_FUNNY_FR | Males | 50 | 50.56 | 2528.00 |
| | Females | 50 | 50.44 | 2522.00 |
| | Total | 100 | | |
| Q_A_MUSIC_FR | Males | 50 | 52.72 | 2636.00 |
| | Females | 50 | 48.28 | 2414.00 |
| | Total | 100 | | |
| Q_B_MUSIC_FR | Males | 50 | 54.12 | 2706.00 |
| | Females | 50 | 46.88 | 2344.00 |
| | Total | 100 | | |
| Q_C_MUSIC_FR | Males | 50 | 53.61 | 2680.50 |
| | Females | 50 | 47.39 | 2369.50 |
| | Total | 100 | | |
| Q_D_MUSIC_FR | Males | 50 | 35.25 | 1762.50 |
| | Females | 50 | 65.75 | 3287.50 |
| | Total | 100 | | |
| Q_A_SPORT_FR | Males | 50 | 48.21 | 2410.50 |
| | Females | 50 | 52.79 | 2639.50 |
| | Total | 100 | | |
| Q_B_SPORT_FR | Males | 50 | 51.00 | 2550.00 |
| | Females | 50 | 50.00 | 2500.00 |
| | Total | 100 | | |
| Q_C_SPORT_FR | Males | 50 | 60.38 | 3019.00 |
| | Females | 50 | 40.62 | 2031.00 |
| | Total | 100 | | |
| Q_D_SPORT_FR | Males | 50 | 51.89 | 2594.50 |
| | Females | 50 | 49.11 | 2455.50 |
| | Total | 100 | | |

| Q_A_NEWS_FR | Males | 50 | 51.94 | 2597.00 |
| | Females | 50 | 49.06 | 2453.00 |
| | Total | 100 | | |
| Q_B_NEWS_FR | Males | 50 | 51.70 | 2585.00 |
| | Females | 50 | 49.30 | 2465.00 |
| | Total | 100 | | |
| Q_C_NEWS_FR | Males | 50 | 50.43 | 2521.50 |
| | Females | 50 | 50.57 | 2528.50 |
| | Total | 100 | | |
| Q_D_NEWS_FR | Males | 50 | 50.96 | 2548.00 |
| | Females | 50 | 50.04 | 2502.00 |
| | Total | 100 | | |

| Q_A_EUCATION_FR | Males | 50 | 49.70 | 2485.00 |
| | Females | 50 | 51.30 | 2565.00 |
| | Total | 100 | | |
| Q_B_EUCATION_FR | Males | 50 | 50.02 | 2501.00 |
| | Females | 50 | 50.98 | 2549.00 |
| | Total | 100 | | |
| Q_C_EUCATION_FR | Males | 50 | 45.60 | 2280.00 |
| | Females | 50 | 55.40 | 2770.00 |
| | Total | 100 | | |
| Q_D_EUCATION_FR | Males | 50 | 55.25 | 2762.50 |
| | Females | 50 | 45.75 | 2287.50 |
| | Total | 100 | | |

| Q_A_POLITICS_FR | Males | 50 | 50.51 | 2525.50 |
| | Females | 50 | 50.49 | 2524.50 |
| | Total | 100 | | |
| Q_B_POLITICS_FR | Males | 50 | 49.90 | 2495.00 |
| | Females | 50 | 51.10 | 2555.00 |
| | Total | 100 | | |
| Q_C_POLITICS_FR | Males | 50 | 51.08 | 2554.00 |
| | Females | 50 | 49.92 | 2496.00 |
| | Total | 100 | | |
| Q_D_POLITICS_FR | Males | 50 | 50.27 | 2513.50 |
| | Females | 50 | 50.73 | 2536.50 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_A_RELIGION_FR | Males | 50 | 49.73 | 2486.50 |
| | Females | 50 | 51.27 | 2563.50 |
| | Total | 100 | | |
| Q_B_RELIGION_FR | Males | 50 | 49.93 | 2496.50 |
| | Females | 50 | 51.07 | 2553.50 |
| | Total | 100 | | |
| Q_C_RELIGION_FR | Males | 50 | 50.25 | 2512.50 |
| | Females | 50 | 50.75 | 2537.50 |
| | Total | 100 | | |
| Q_D_RELIGION_FR | Males | 50 | 50.50 | 2525.00 |
| | Females | 50 | 50.50 | 2525.00 |
| | Total | 100 | | |

**Table 24: Results for MWW test of all the SS categories with gender for Facebook Fr**

### 4.2.4.1.   For the SS category of Q_A: TANGIBLE SUPPORT

Based on this table, histograms were generated for a comparative purpose as follows:
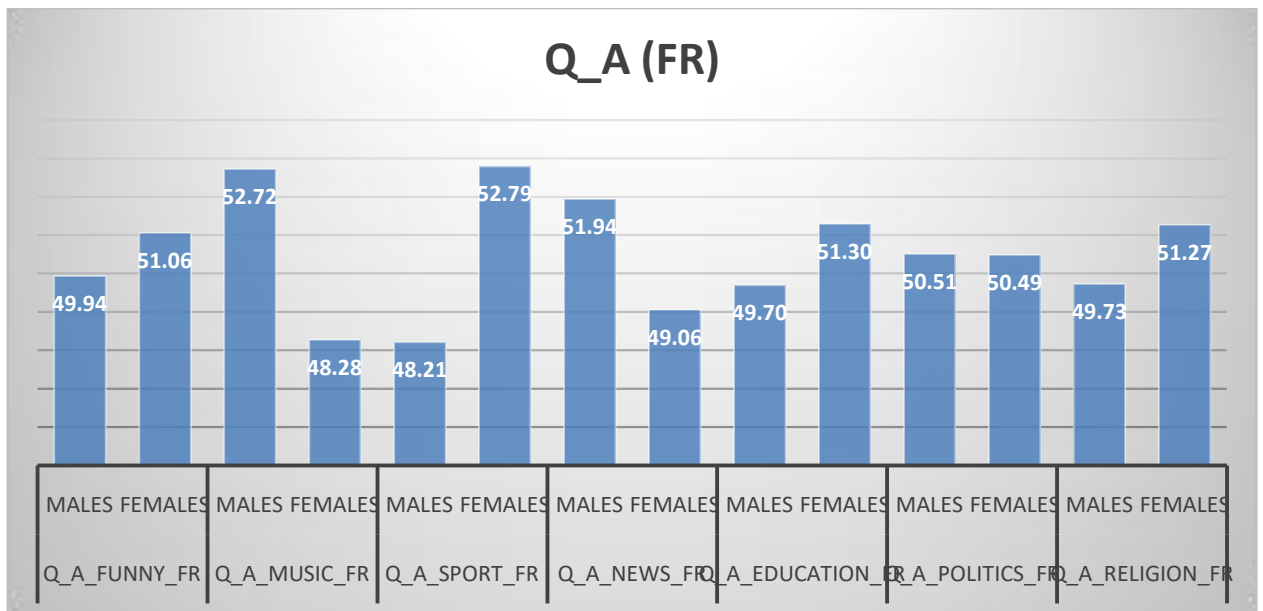


**Figure 20: Tangible Support for males and females in all the domains for Facebook Fr**

The above histogram shows the percentage of answers given by males and females for every domain in the SS category 'Tangible Support'. We notice that domains with the highest scores where the percentage exceeds 50% go to: Funny shows/entertainment, music, sport, news, education and religion. This means that 'tangible support' is looked for in the mentioned domains.

The next step is to compare these domains which scored high in 'tangible support' by looking at the median in the answers by using a boxplot.

**Figure 21Boxplot of Tangible Support for males and females in all the domains for Facebook Fr**
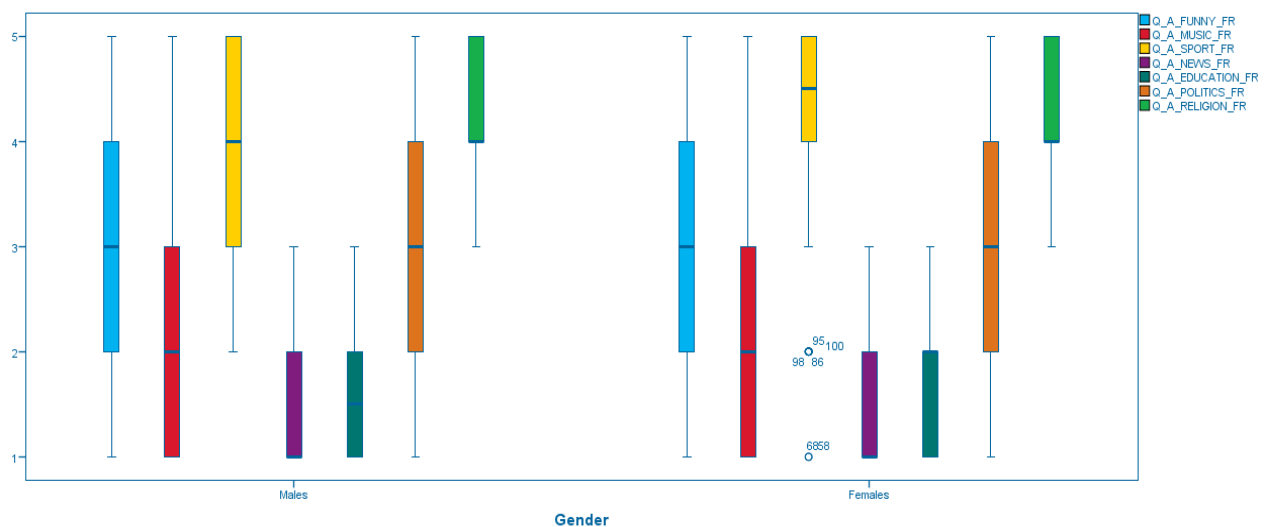


In this boxplot, the vertical line represents the answers from 1 to 5 ranging from totally disagree to totally agree. Differences in the medians show differences in answers between males and females.

We notice that in sport fr, there is a difference in the median for males (4) but for females (4.5) which means that females answers were different and near the answer 'totally agree'.

Also, in education, the median in females' answers was (2), higher than the one of males (1.5) which means that males tended to totally disagree on the presence of 'tangible support' in education Fr unlike females.

In order not to repeat this step of analysing the gender for every domain, all the figures will be displayed but only the ones with a significant effect will be analysed for their validity and representativeness related to the study as shown in the next section.

### 4.2.4.2.    For the SS category of Q_B: BELONGING
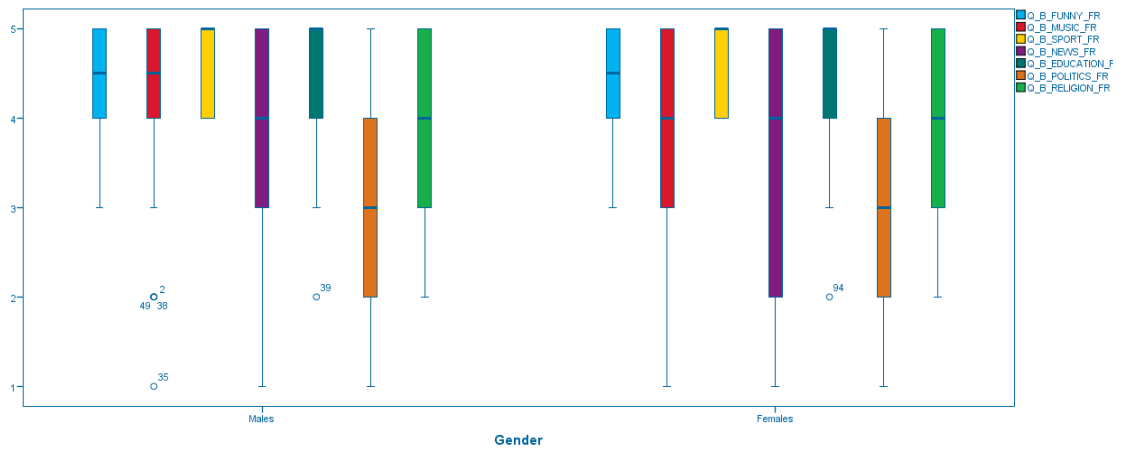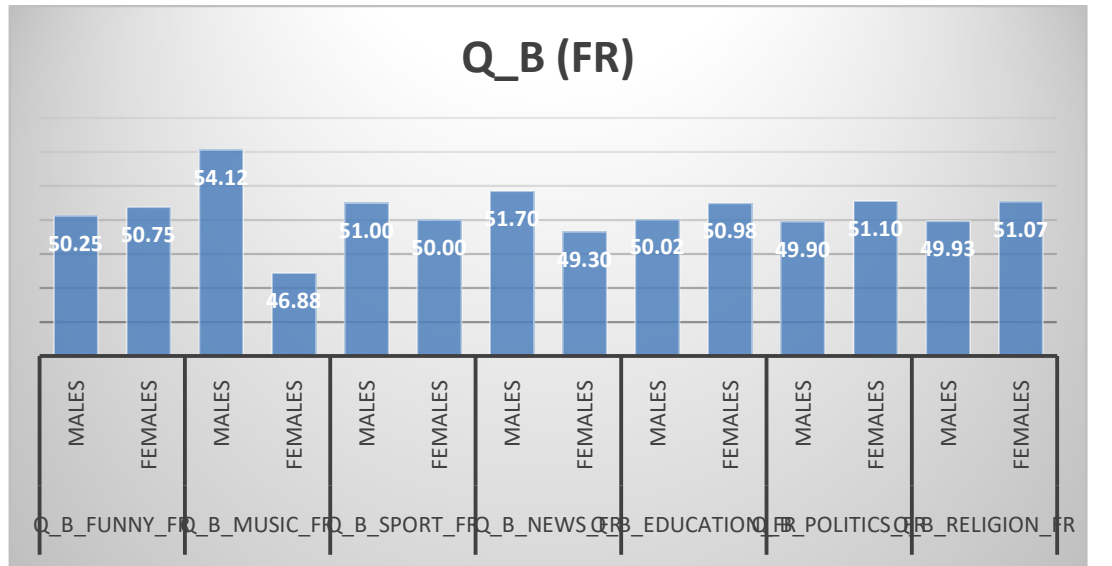


**Figure 22: 'Belonging ' for males and females in all the domains for facebook Fr**

### 4.2.4.3.    For the SS category of Q_C: Self-esteem
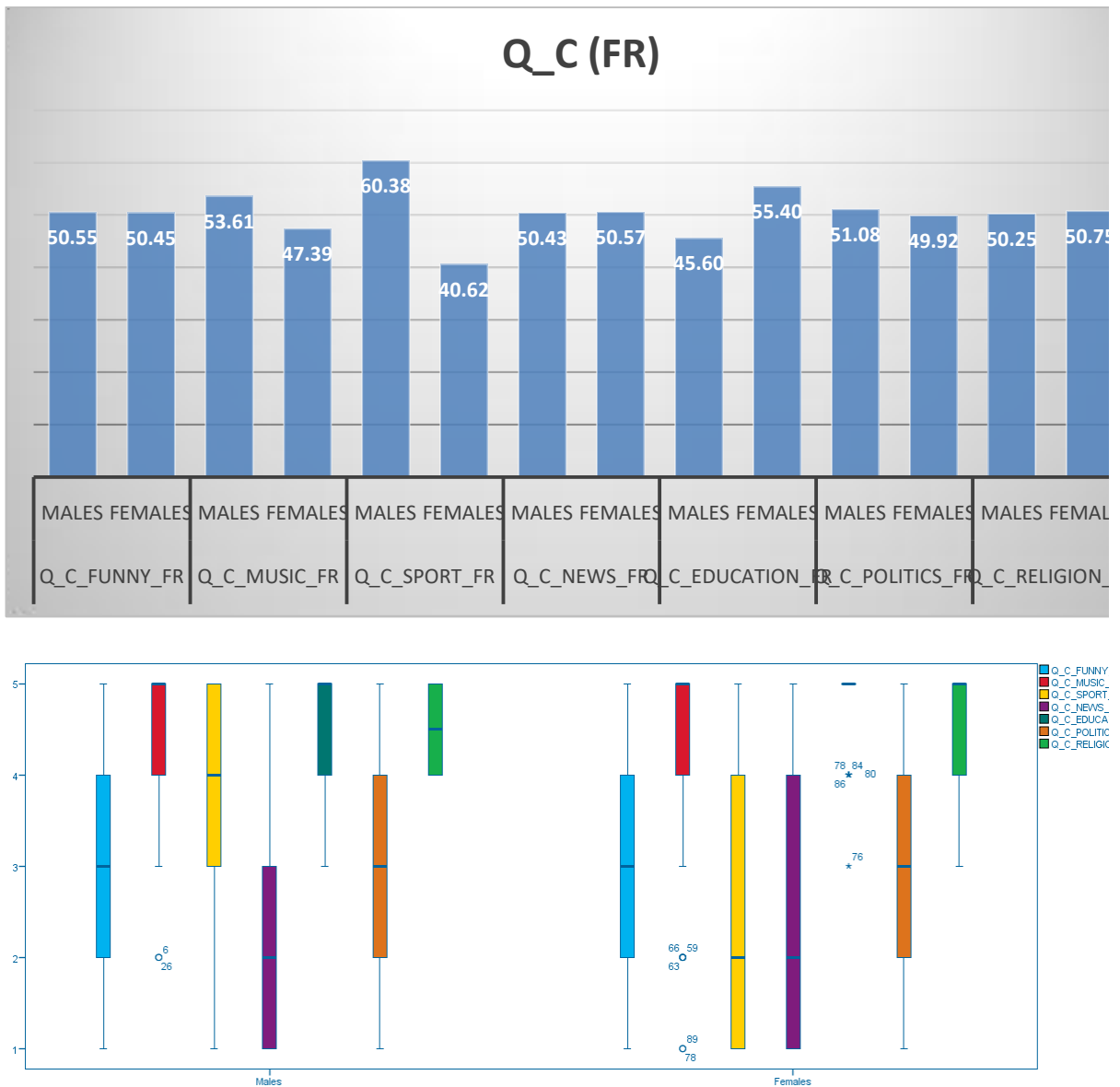


**Figure 23: 'Self-esteem' for males and females in all the domains**

### 4.2.4.4.    For the SS category of Q_D: Appraisal
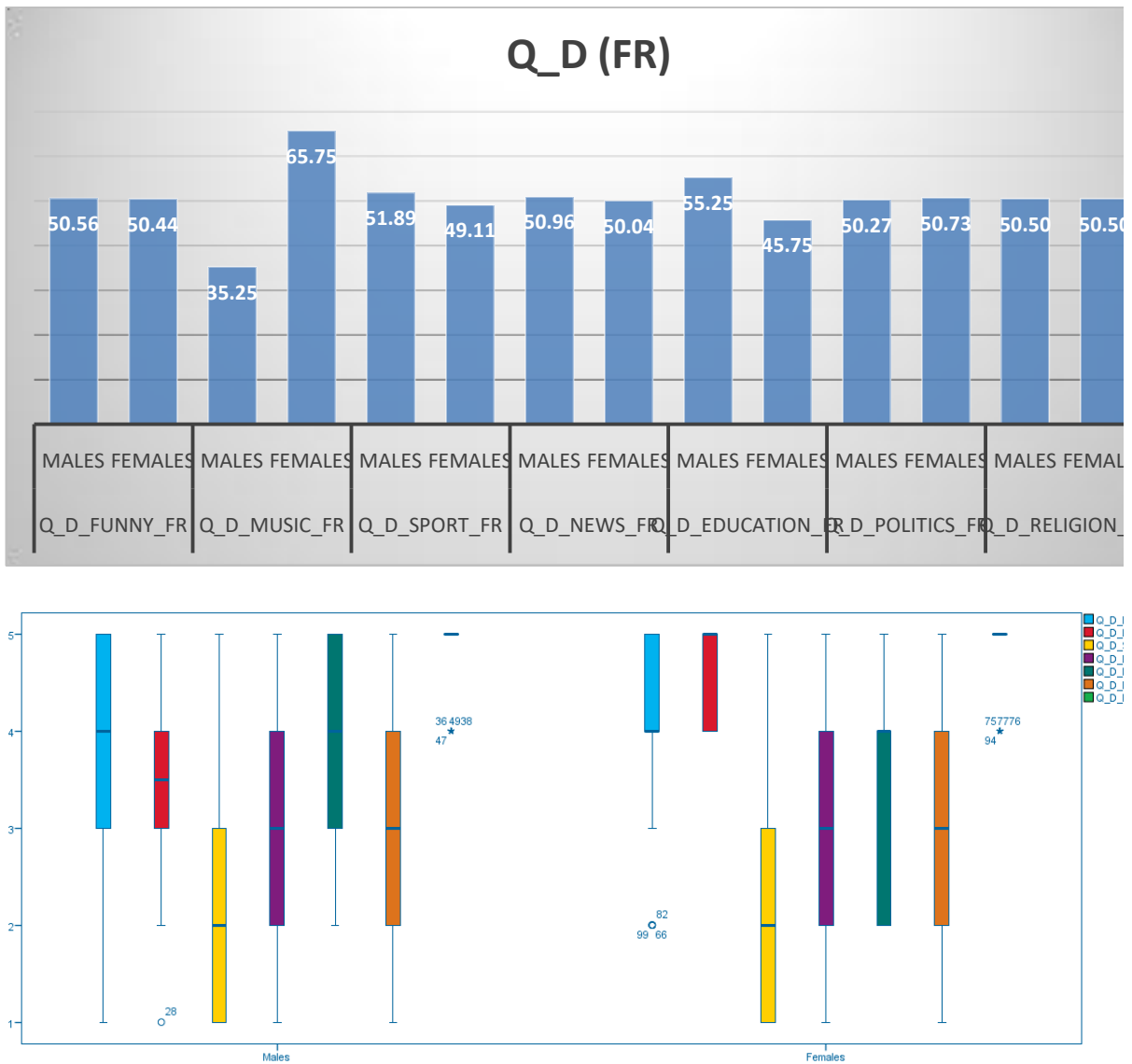




**Figure 24: 'Appraisal' for males and females in all the domains**

### 4.2.4.5.   Significant Results

After that, MWW tests were performed in order to see if there is a significant effect.

The results were grouped below:

**Significant results for SS Categories in all the domains for Facebook FR**

Music               Q_D Appraisal          M <F, (35.25 vs. 65.75 %), p**=0.000

Sport               Q_C Self-Esteem        M >F, (60.28 vs. 40.53%),p**=0.000

Education           Q_C Self-Esteem        M <F, (45.60 vs. 55.40 %)p*=0.03

**Table 25: Significant results for all the SS Categories in all the domains for Facebook Fr**

In every case, a P value < 0.05 the result is significant *

a P value <0.01 the result is very significant **

The following figures detail every significant category:

- **Music**
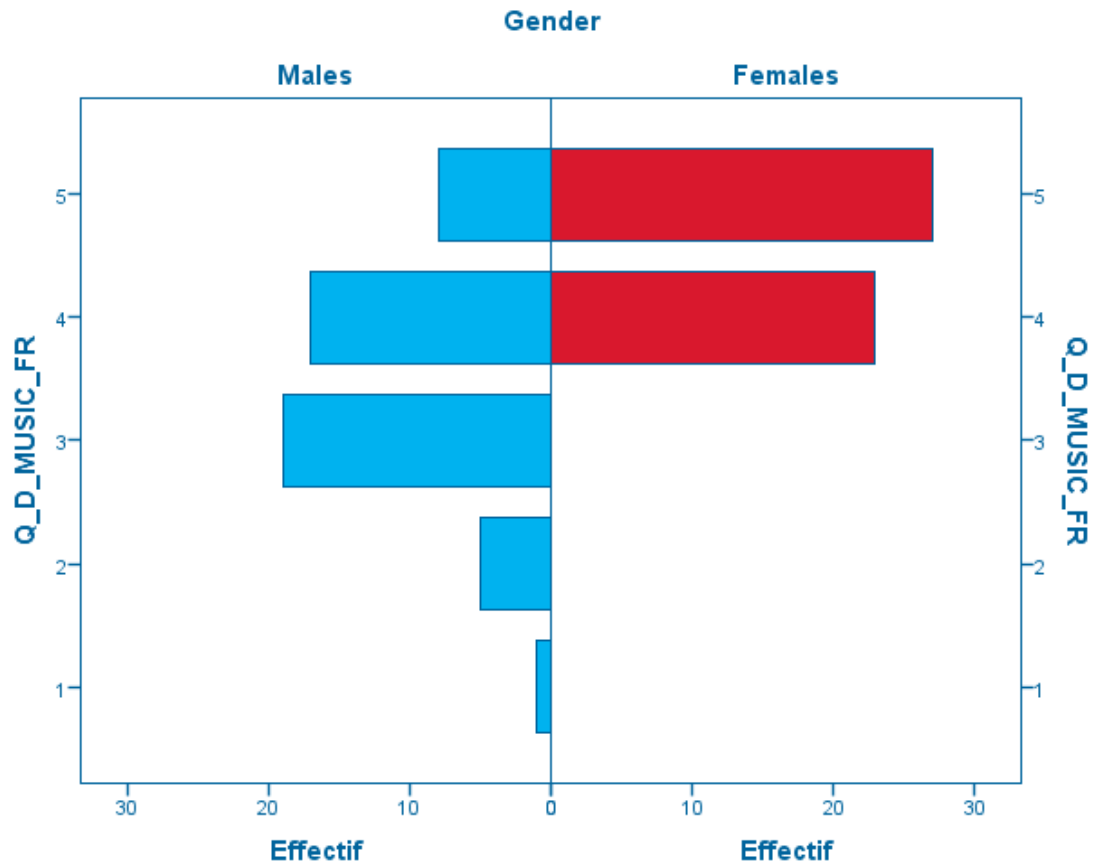


| | Q_D_MUSIC_FR |
|---|---|
| U de Mann-Whitney | 487.500 |
| W de Wilcoxon | 1762.500 |
| Z | -5.584 |
| Sig. asymptotique (bilatérale) | .000 |
| Sig. exacte (bilatérale) | .000 |
| Sig. exacte (unilatérale) | .000 |
| Point de probabilité : | .000 |

**Figure 25: significant result in the domain of Music in Facebook Fr.**

We conclude from the above figures that there is a main effect of gender with females scoring higher (totally agree) than males in the domain of music Fr for the SS category 'Appraisal'. In other words, women totally agree that they are looking for 'appraisal' when talking about music and expressing themselves in French.

- **Sport**
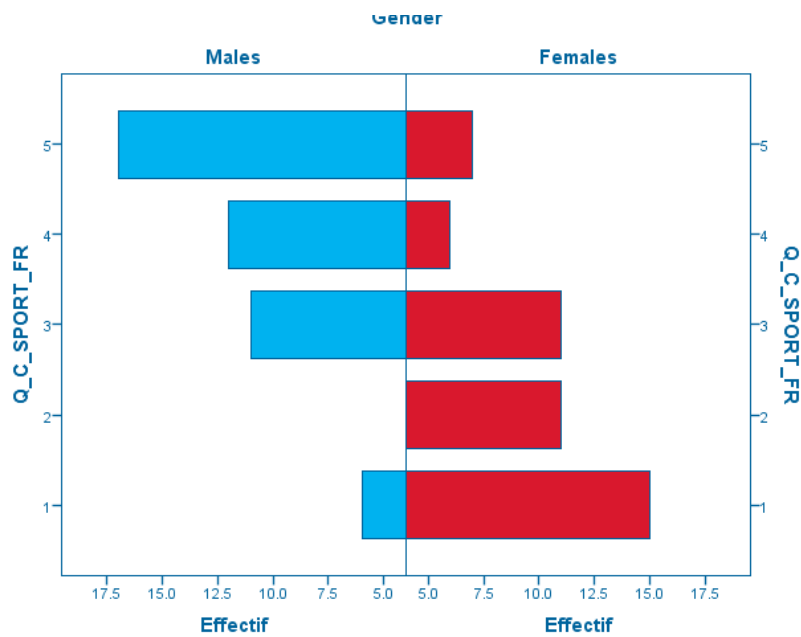


| | Q_C_SPORT_FR |
|---|---|
| U de Mann-Whitney | 756.000 |
| W de Wilcoxon | 2031.000 |
| Z | -3.481 |
| Sig. asymptotique (bilatérale) | .000 |
| Sig. exacte (bilatérale) | .000 |
| Sig. exacte (unilatérale) | .000 |
| Point de probabilité : | .000 |

**Figure 26: significant result in the domain of sport in Facebook Fr.**

We conclude from the above figures that there is a main effect of gender with males scoring higher (agree) than females in the domain of sport Fr for the SS category'Self-esteem'. In other words, men agree that they are looking for 'self esteem' when talking about sport and expressing themselves in French.

- **Education**
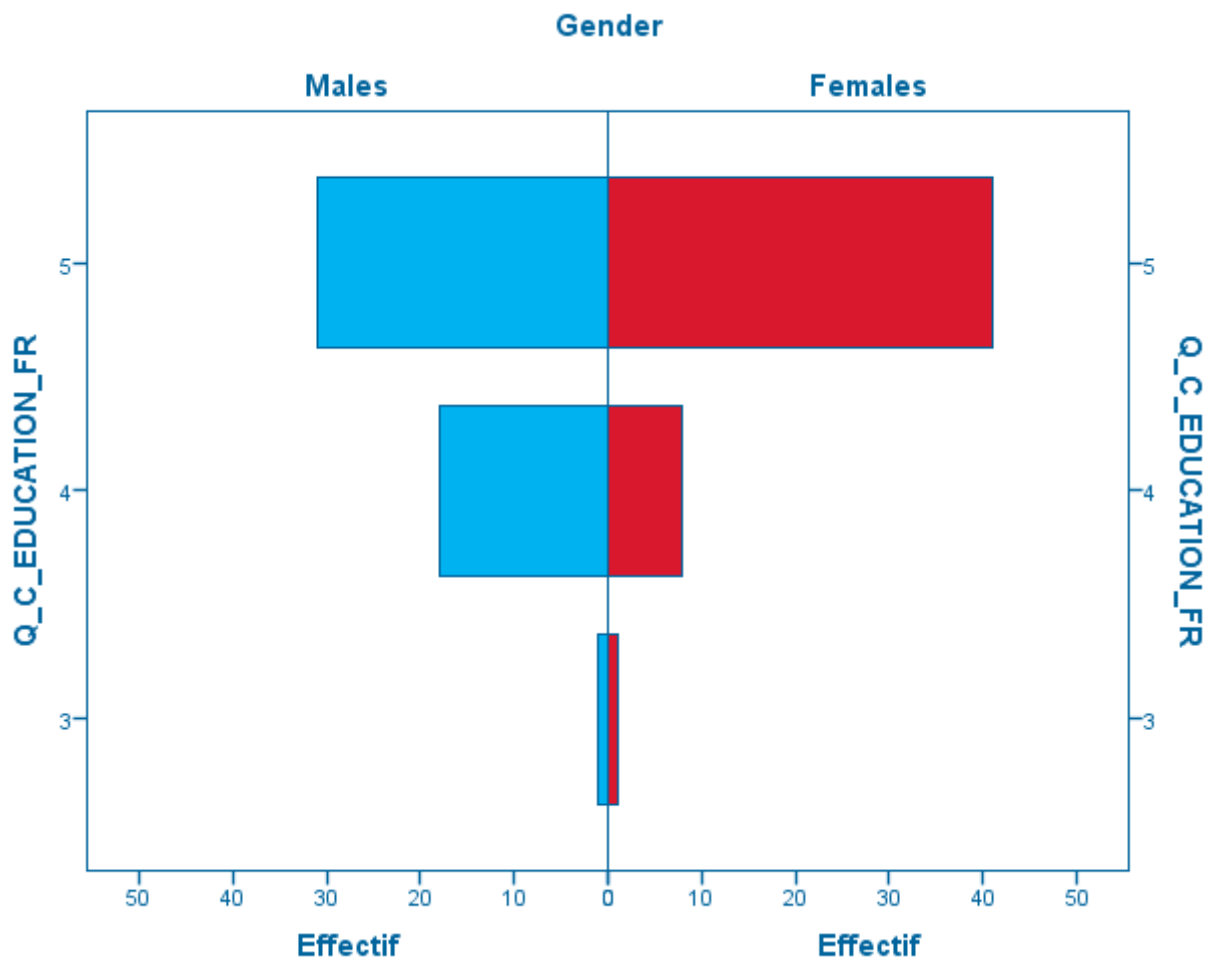
| | Q_C_EUCATION_FR |
|---|---|
| U de Mann-Whitney | 1005.000 |
| W de Wilcoxon | 2280.000 |
| Z | -2.164 |
| Sig. asymptotique (bilatérale) | .030 |
| Sig. exacte (bilatérale) | .041 |
| Sig. exacte (unilatérale) | .021 |
| Point de probabilité : | .007 |

**Figure 27: significant result in the domain of Education in Facebook Fr.**

We conclude from the above figures that there is a main effect of gender with females scoring higher (totally agree) than males in the domain of education Fr for the SS category 'Self-esteem'. In other words, women totally agree that they are looking for 'self esteem' when talking about education and expressing themselves in French.

### 4.2.5. Results for SS Categories for Algerian Arabic Facebook Group

For the purpose of analysis, below are the results for of all the SS categories in relation to gender for the Facebook Ar group.

| | | | | |
|---|---|---|---|---|
| Q_A_FUNNY_AR | Males | 50 | 49.64 | 2482.00 |
| | Females | 50 | 51.36 | 2568.00 |
| | Total | 100 | | |
| Q_B_FUNNY_AR | Males | 50 | 50.30 | 2515.00 |
| | Females | 50 | 50.70 | 2535.00 |
| | Total | 100 | | |
| Q_C_FUNNY_AR | Males | 50 | 50.75 | 2537.50 |
| | Females | 50 | 50.25 | 2512.50 |
| | Total | 100 | | |
| Q_D_FUNNY_AR | Males | 50 | 50.53 | 2526.50 |
| | Females | 50 | 50.47 | 2523.50 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_A_MUSIC_AR | Males | 50 | 48.14 | 2407.00 |
| | Females | 50 | 52.86 | 2643.00 |
| | Total | 100 | | |
| Q_B_MUSIC_AR | Males | 50 | 50.32 | 2516.00 |
| | Females | 50 | 50.68 | 2534.00 |
| | Total | 100 | | |
| Q_C_MUSIC_AR | Males | 50 | 50.16 | 2508.00 |
| | Females | 50 | 50.84 | 2542.00 |
| | Total | 100 | | |
| Q_D_MUSIC_AR | Males | 50 | 47.77 | 2388.50 |
| | Females | 50 | 53.23 | 2661.50 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_A_SPORT_AR | Males | 50 | 61.19 | 3059.50 |
| | Females | 50 | 39.81 | 1990.50 |
| | Total | 100 | | |
| Q_B_SPORT_AR | Males | 50 | 53.13 | 2656.50 |
| | Females | 50 | 47.87 | 2393.50 |
| | Total | 100 | | |
| Q_C_SPORT_AR | Males | 50 | 54.56 | 2728.00 |
| | Females | 50 | 46.44 | 2322.00 |
| | Total | 100 | | |
| Q_D_SPORT_AR | Males | 50 | 55.58 | 2779.00 |
| | Females | 50 | 45.42 | 2271.00 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_A_NEWS_AR | Males | 50 | 51.50 | 2575.00 |
| | Females | 50 | 49.50 | 2475.00 |
| | Total | 100 | | |
| Q_B_NEWS_AR | Males | 50 | 46.90 | 2345.00 |
| | Females | 50 | 54.10 | 2705.00 |
| | Total | 100 | | |
| Q_C_NEWS_AR | Males | 50 | 50.59 | 2529.50 |
| | Females | 50 | 50.41 | 2520.50 |
| | Total | 100 | | |
| Q_D_NEWS_AR | Males | 50 | 52.81 | 2640.50 |
| | Females | 50 | 48.19 | 2409.50 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_A_EUCATION_AR | Males | 50 | 52.72 | 2636.00 |
| | Females | 50 | 48.28 | 2414.00 |
| | Total | 100 | | |
| Q_B_EUCATION_AR | Males | 50 | 49.46 | 2473.00 |
| | Females | 50 | 51.54 | 2577.00 |
| | Total | 100 | | |
| Q_C_EUCATION_AR | Males | 50 | 48.83 | 2441.50 |
| | Females | 50 | 52.17 | 2608.50 |
| | Total | 100 | | |
| Q_D_EUCATION_AR | Males | 50 | 50.94 | 2547.00 |
| | Females | 50 | 50.06 | 2503.00 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_A_POLITICS_AR | Males | 50 | 48.86 | 2443.00 |
| | Females | 50 | 52.14 | 2607.00 |
| | Total | 100 | | |
| Q_B_POLITICS_AR | Males | 50 | 50.32 | 2516.00 |
| | Females | 50 | 50.68 | 2534.00 |
| | Total | 100 | | |
| Q_C_POLITICS_AR | Males | 50 | 50.53 | 2526.50 |
| | Females | 50 | 50.47 | 2523.50 |
| | Total | 100 | | |
| Q_D_POLITICS_AR | Males | 50 | 50.64 | 2532.00 |
| | Females | 50 | 50.36 | 2518.00 |
| | Total | 100 | | |

| Q_A_RELIGION_AR | Males | 50 | 63.52 | 3176.00 |
|---|---|---|---|---|
| | Females | 50 | 37.48 | 1874.00 |
| | Total | 100 | | |
| Q_B_RELIGION_AR | Males | 50 | 57.77 | 2888.50 |
| | Females | 50 | 43.23 | 2161.50 |
| | Total | 100 | | |
| Q_C_RELIGION_AR | Males | 50 | 62.27 | 3113.50 |
| | Females | 50 | 38.73 | 1936.50 |
| | Total | 100 | | |
| Q_D_RELIGION_AR | Males | 50 | 57.76 | 2888.00 |
| | Females | 50 | 43.24 | 2162.00 |
| | Total | 100 | | |

**Table 26: Results for MWW test of all the SS categories with gender for Facebook Ar.**

### 4.2.5.1.    For the SS category of Q_A: TANGIBLE SUPPORT

Based on this table, histograms were generated for a comparative purpose as follows:
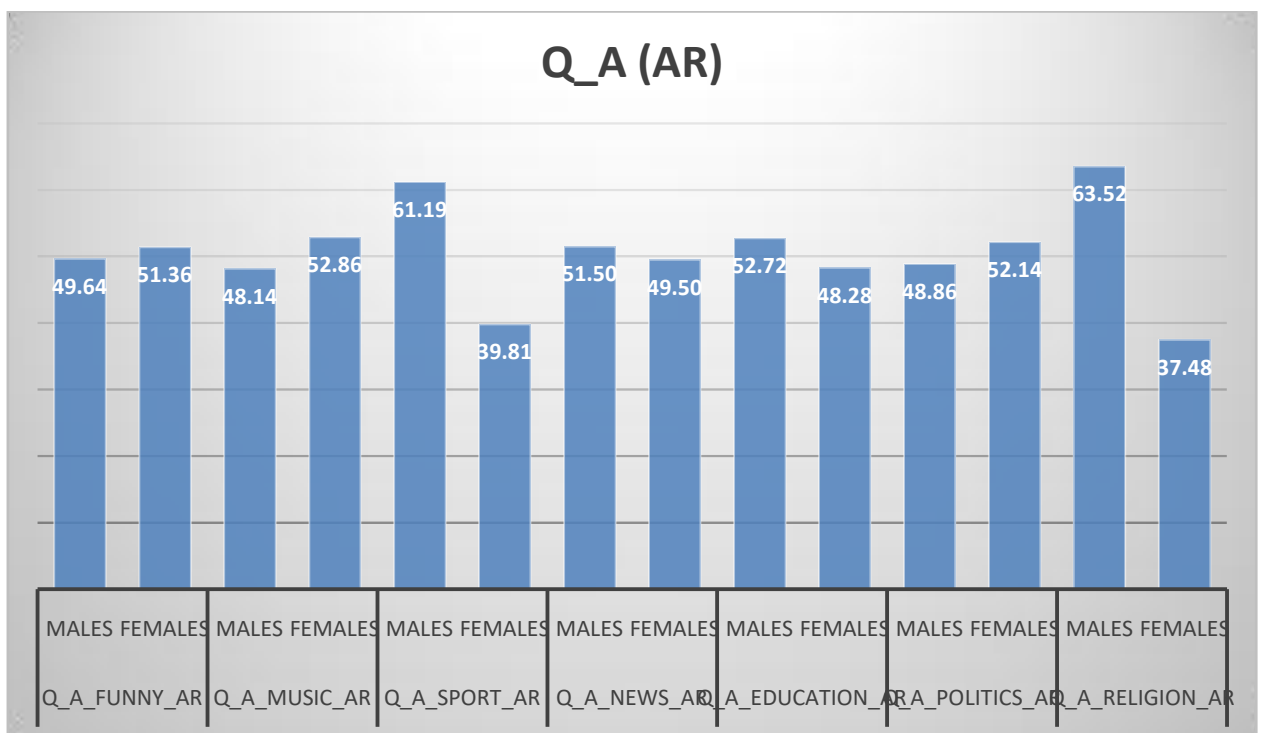


**Figure 28: Tangible Support for males and females in all the domains for Facebook Ar**

The above histogram shows the percentage of answers given by males and females for every domain in the SS category 'Tangible Support'. We notice that domains with the highest scores where the percentage exceeds 50% go to: Funny shows/entertainment, music, sport, news, education politics and religion. This means that 'tangible support' is looked for in the mentioned domains.

The next step is to compare these domains which scored high in 'tangible support' by looking at the median in the answers by using a boxplot.
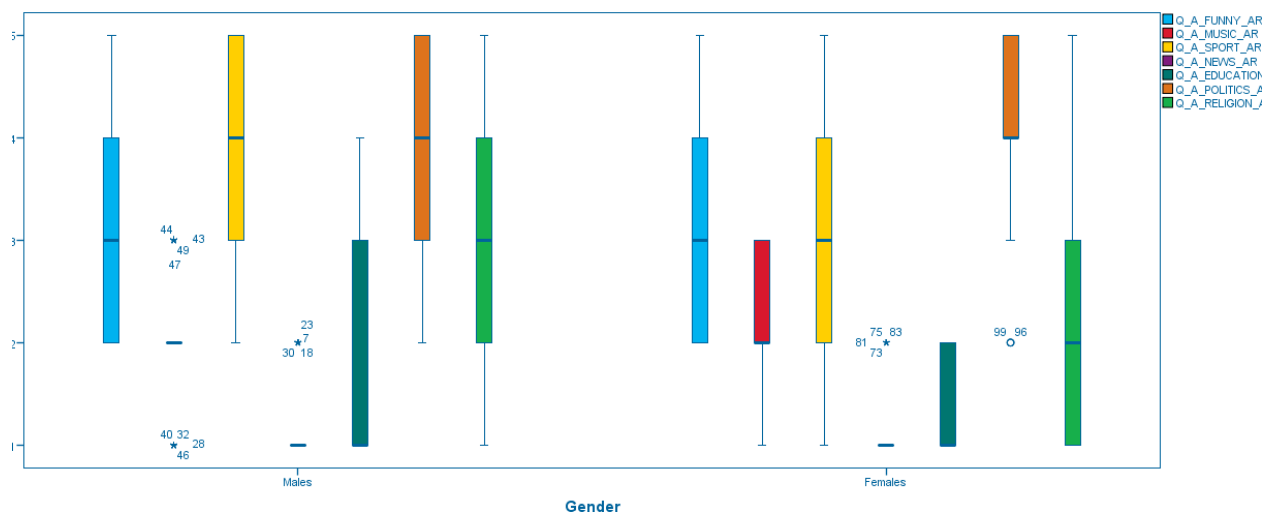


**Figure 29: Boxplot of Tangible Support for males and females in all the domains for Facebook Ar.**

In this boxplot, the vertical line represents the answers from 1 to 5 ranging from totally disagree to totally agree. Differences in the medians show differences in answers between males and females.

We notice that in music Ar, the median of all the answers given by men were (2) while for females answers varied from (2) to (3) with a median of (2) .This difference means that all the males in the group disagree about the existence of 'tangible support' in Music Ar.

Also, in sport, the median for males is (4) higher than the ones of males (3) which means that males tended to agree about the existence of 'tangible support' unlike females whose answers were neutral.

In addition, for religion, the median of the answers given by men were (3) while for women it was (2). This means that is religion Ar, males' answers were neutral (neither agree nor disagree) about the existence of 'tangible support' while females agree about it.

In order not to repeat this step of analysing the gender for every domain, all the figures will be displayed but only the ones with a significant effect will be analysed for their validity and representativeness related to the study as shown in the next section.

### 4.2.5.2.    For the SS category of Q_B: BELONGING
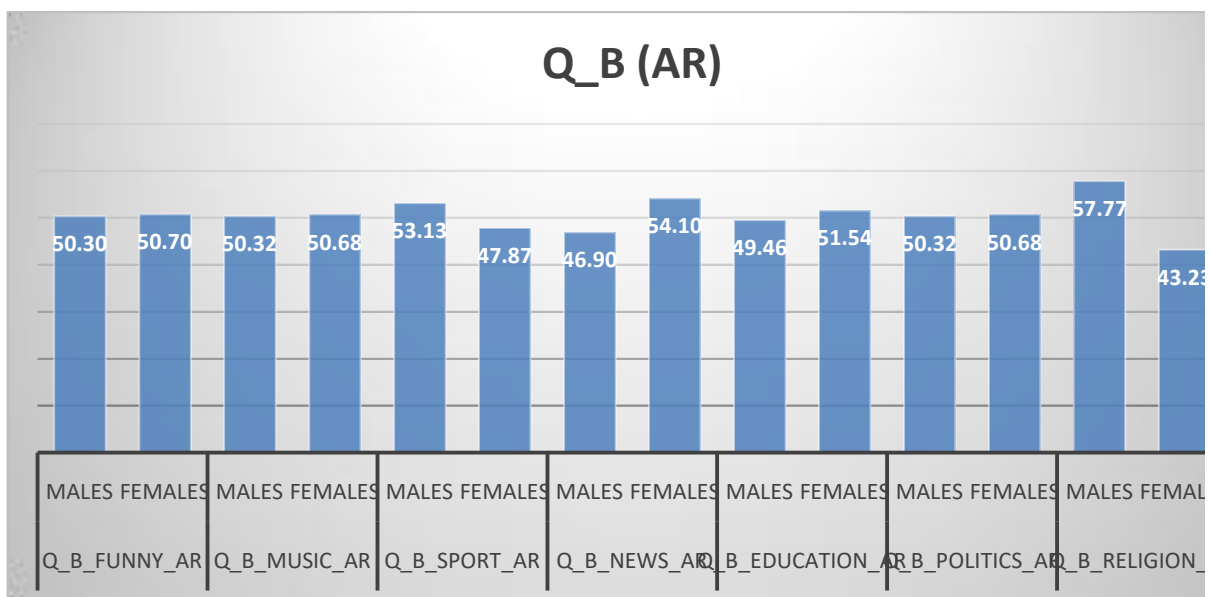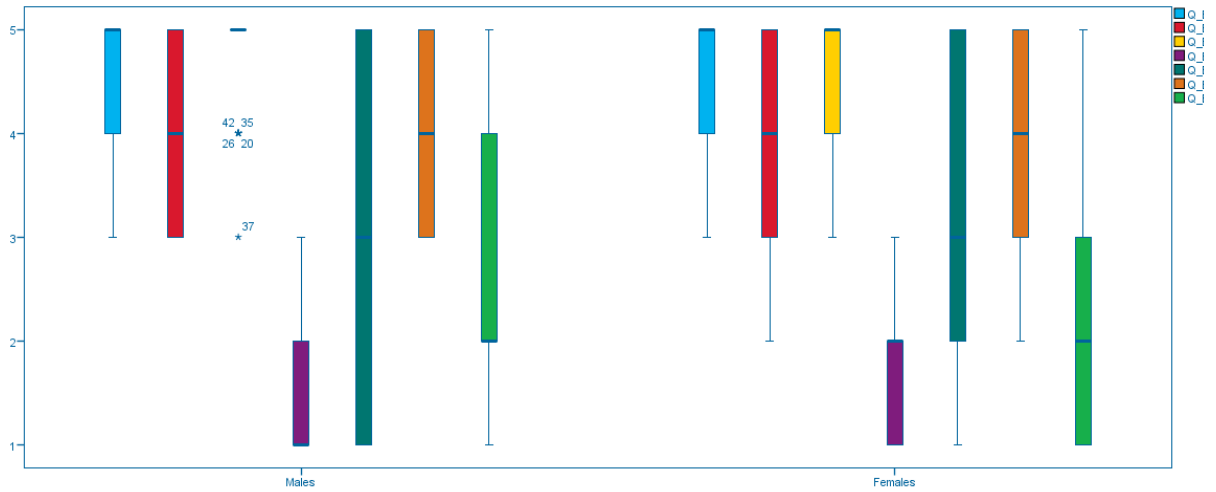
**Figure 30: 'Belonging ' for males and females in all the domains for facebook Ar.**

### 4.2.5.3.    For the SS category of Q_C: Self-esteem
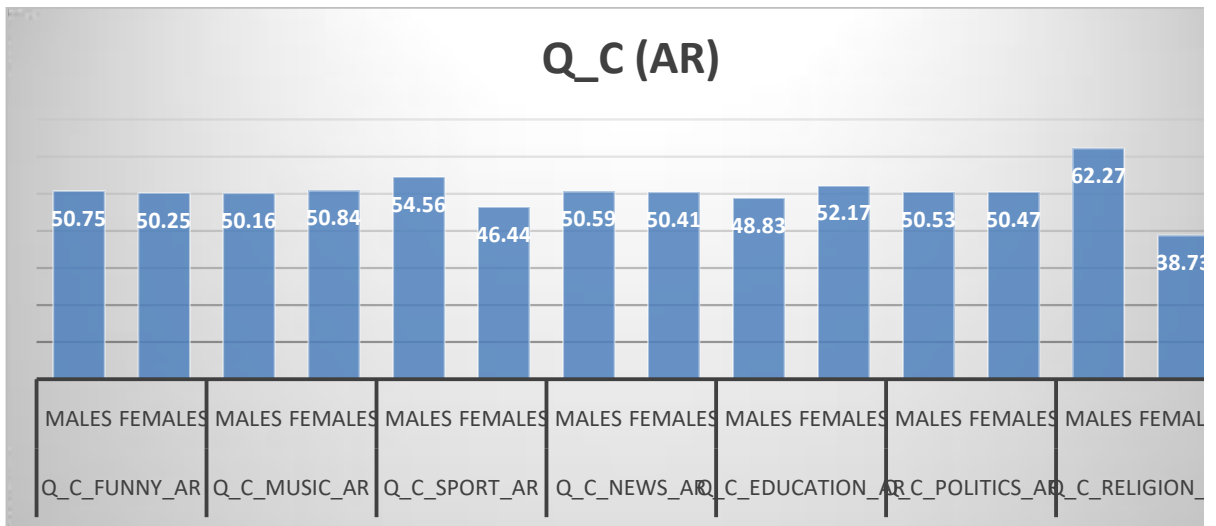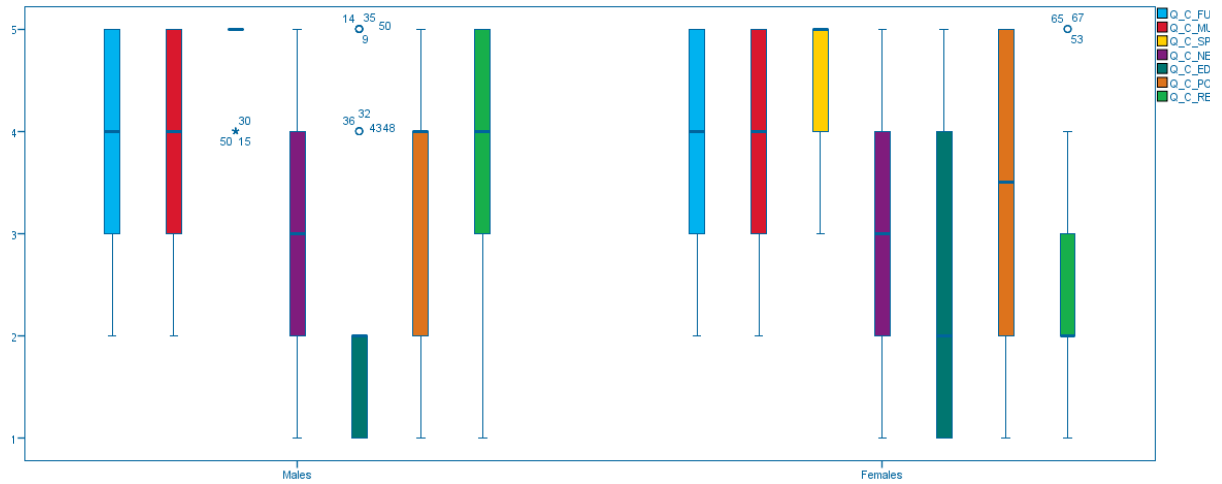
**Figure 31: 'Self-esteem' for males and females in all the domains for facebook Ar.**

### 4.2.5.4.    For the SS category of Q_D: Appraisal
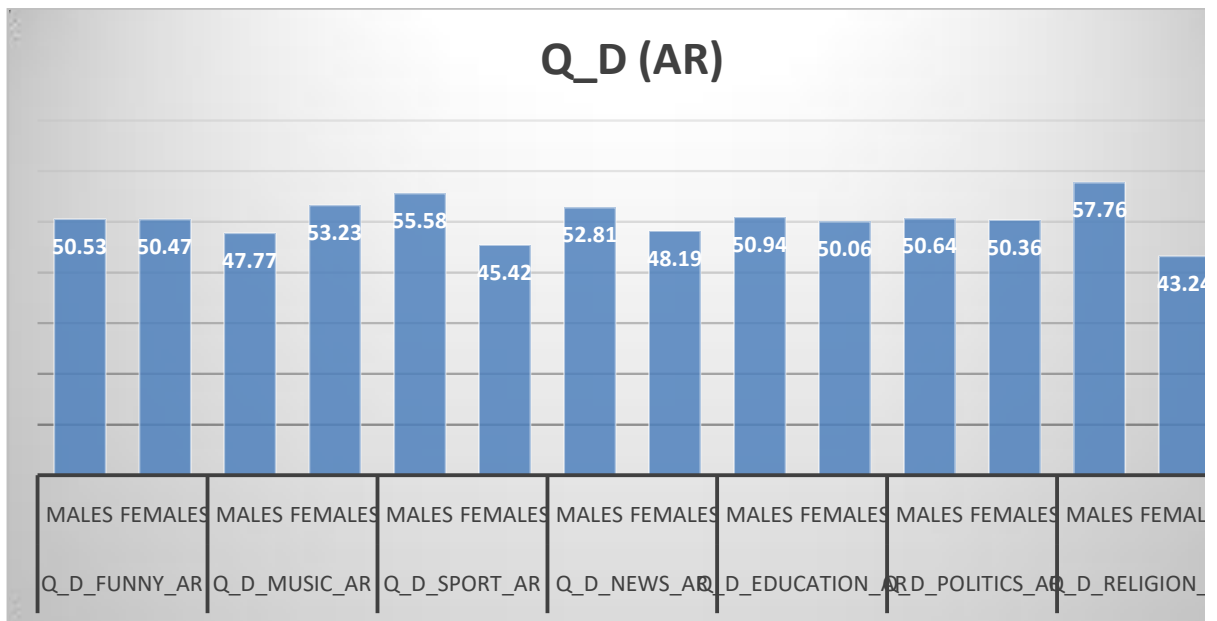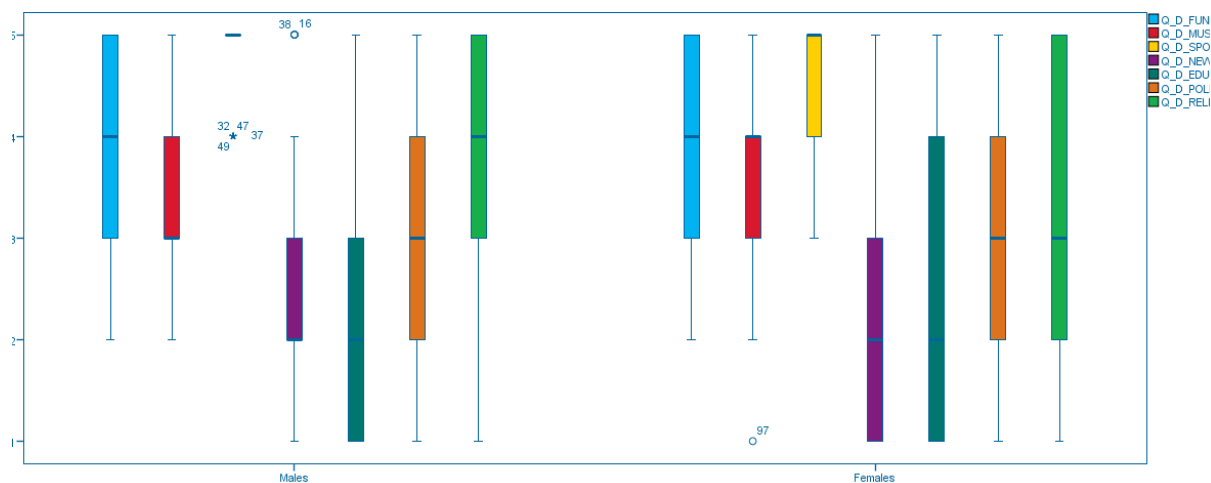
**Figure 32: : 'Appraisal ' for males and females in all the domains for facebook Ar.**

### 4.2.5.5.   Significant results

After that, MWW tests were performed in order to see if there is a significant effect.

The results were grouped below:

**Significant results for SS Categories in all the domains for Facebook Ar**

| Sport | Q_A Tangible Support | M >F, (61.19 vs. 39.81 %), p**=0.000 |
| --- | --- | --- |
| | Q_D Appraisal | M >F,(55.58 vs. 45.42%), p*=0.03 |
| Religion | Q_A Tangible Support | M >F,(63.52 vs. 37.48 %), p**=0.000 |
| | Q_B Belonging | M > F, (57.77 vs. 43.23 %), p**=0.009 |
| | Q_C Self-Esteem | M > F, (62.27 vs. 38.73 %), p**=0.000 |
| | Q_D Appraisal | M > F, (57.76 vs. 43.24 %), p*=0.01 |

**Table 27: Significant results for all the SS Categories in all the domains for Facebook Ar**

In every case, when the P value $< 0.05$ the result is significant *

When the P value $<0.01$ the result is very significant **

The following figures detail every significant category:

- **Sport**
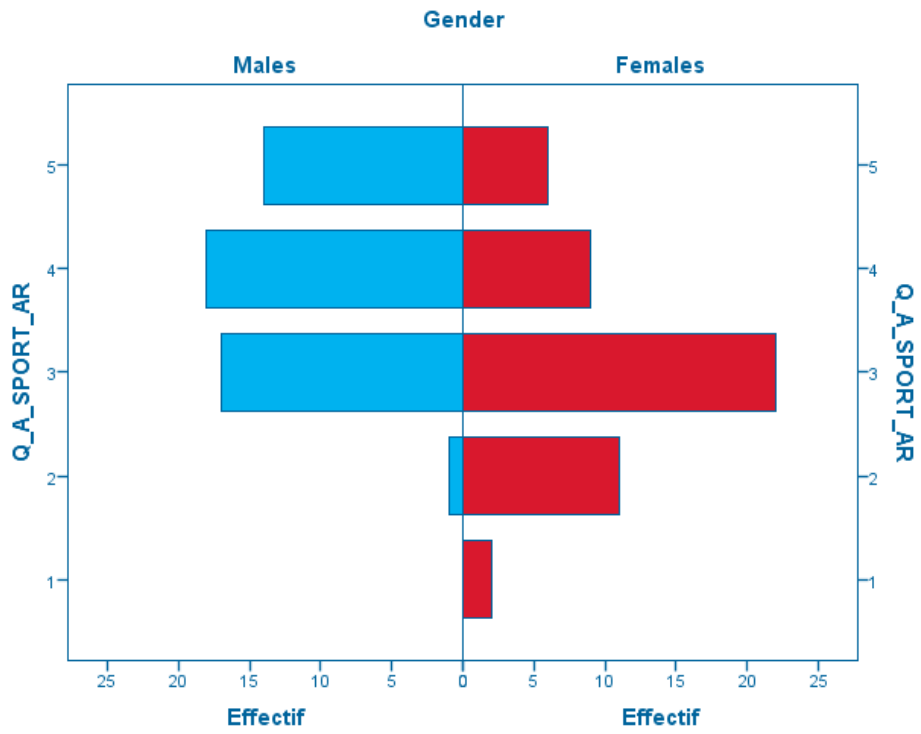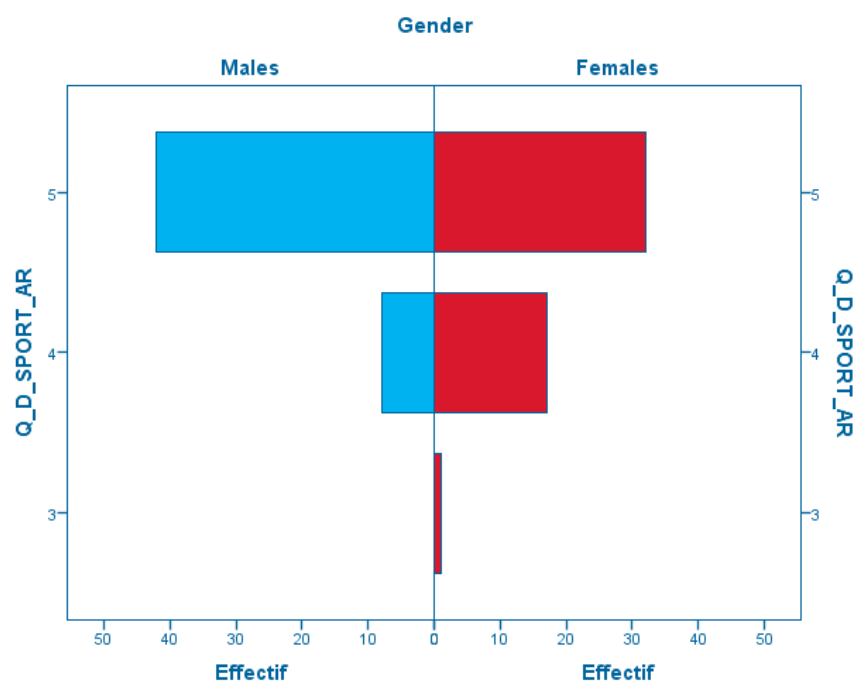
| | Q_A_SPORT_AR | Q_D_SPORT_AR |
|---|---|---|
| U de Mann-Whitney | 715.500 | 996.000 |
| W de Wilcoxon | 1990.500 | 2271.000 |
| Z | -3.860 | -2.301 |
| Sig. asymptotique (bilatérale) | .000 | .021 |
| Sig. exacte (bilatérale) | .000 | .030 |
| Sig. exacte (unilatérale) | .000 | .015 |
| Point de probabilité : | .000 | .010 |

**Figure 33: significant results in the domain of Sport in Facebook Ar**

We conclude from the above figures that there is a main effect of gender with males scoring higher (totally agree) than females in the domain of sport Ar for the two SS categories 'Tangible Support' and 'Appraisal'. In other words, men totally agree that they are looking for both 'Tangible Support' and 'Appraisal' when talking about sport (mainly football in this case) and expressing themselves in Arabic.

- **Religion**
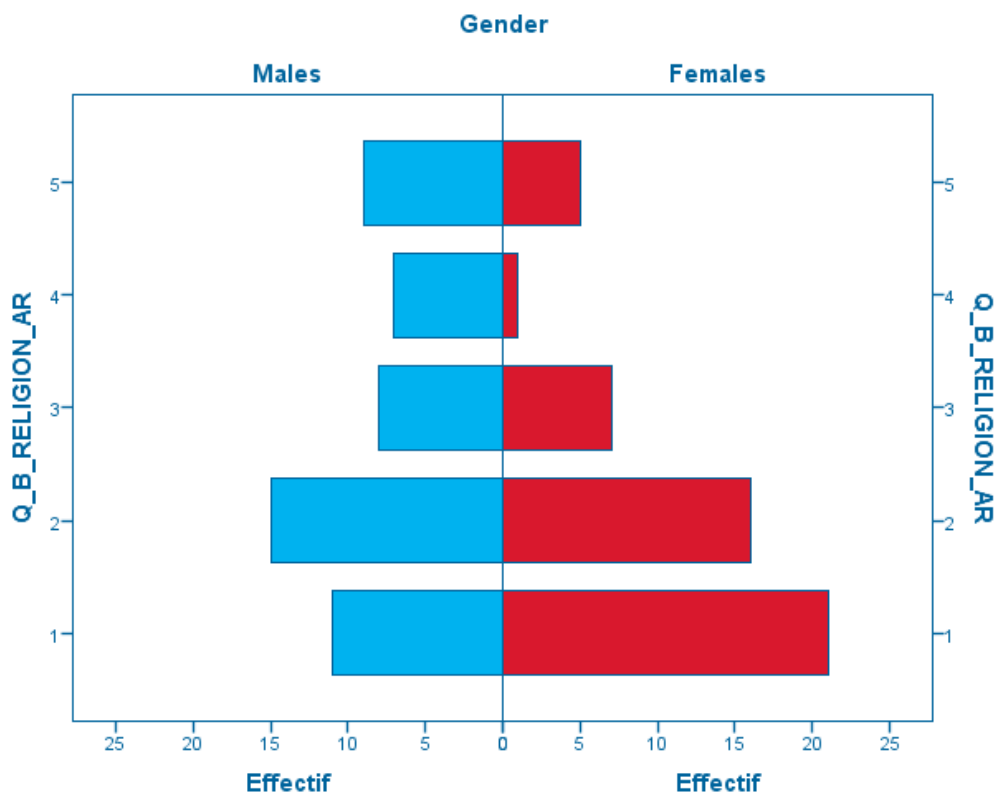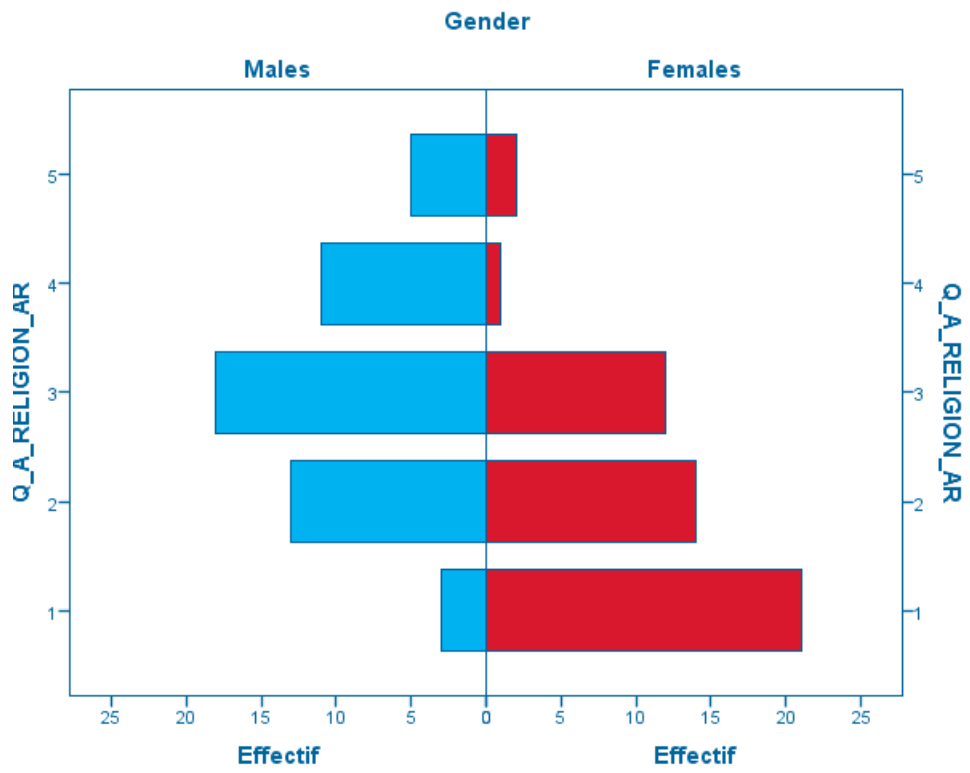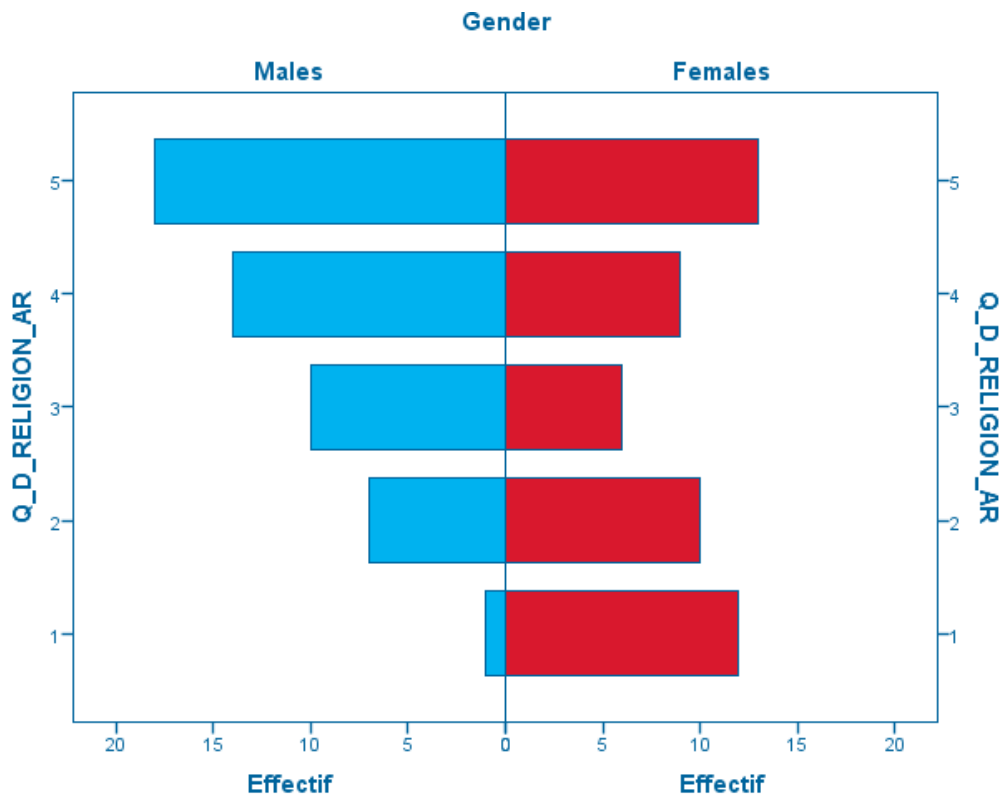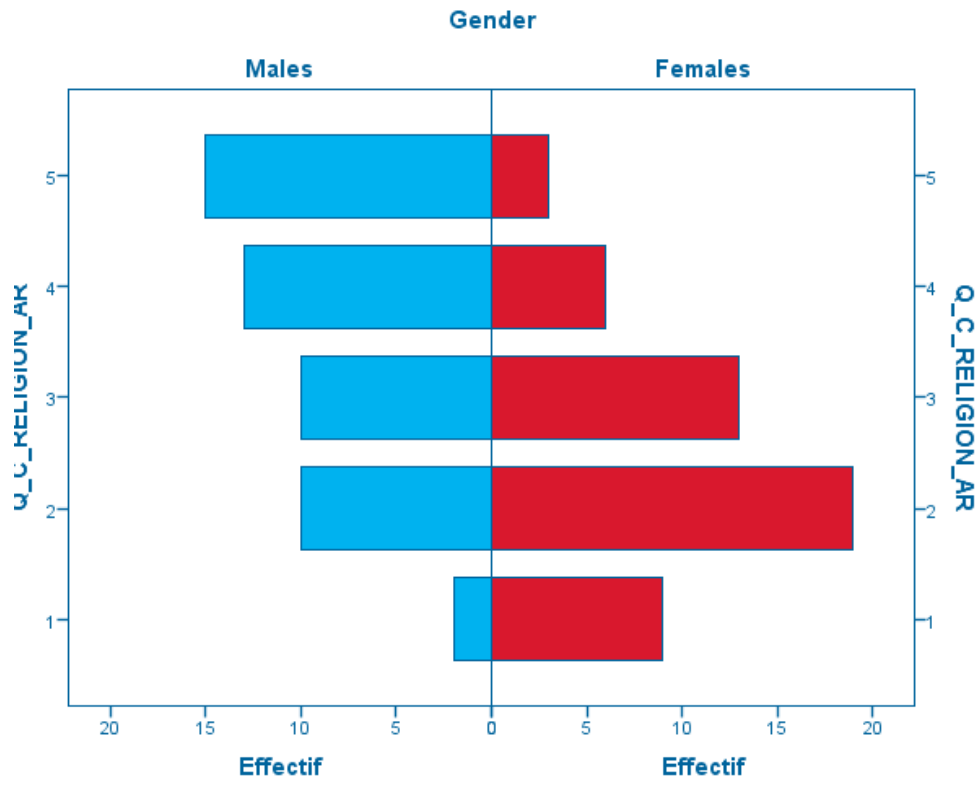
| | Q_A_RELIGION_AR | Q_B_RELIGION_AR | Q_C_RELIGION_AR | Q_D_RELIGION_ |
|---|---|---|---|---|
| U de Mann-Whitney | 599.000 | 886.500 | 661.500 | 887. |
| W de Wilcoxon | 1874.000 | 2161.500 | 1936.500 | 2162. |
| Z | -4.635 | -2.597 | -4.163 | -2. |
| Sig. asymptotique (bilatérale) | .000 | .009 | .000 | . |
| Sig. exacte (bilatérale) | .000 | .009 | .000 | . |
| Sig. exacte (unilatérale) | .000 | .004 | .000 | . |
| Point de probabilité : | .000 | .000 | .000 | . |

**Figure 34: significant results in the domain of Religion in Facebook Ar**

We conclude from the above figures that there is a main effect of gender with males scoring higher than females in all the SS categories. In other words, unlike females, men agree that they are looking for all the SS categories 'Tangible Support', 'Belonging', Self-Esteem' and 'Appraisal' when talking about religion and expressing themselves in Arabic.

### 4.2.5.5.1.    Significant Effect for Gender in both Languages Fr and Ar

Throughout MWW test analyses, an interesting main effect of gender on the domains  was found the language Fr and Ar, as shown below:

| | m_FUNNY | m_MUSIC | m_SPORT | m_NEWS | m_EDUCATION | m_POLITICS | m_RELIGIO |
|---|---|---|---|---|---|---|---|
| U de Mann-Whitney | 1205.500 | 1127.000 | 651.000 | 1233.000 | 1203.000 | 1247.000 | 490.00 |
| W de Wilcoxon | 2480.500 | 2402.000 | 1926.000 | 2508.000 | 2478.000 | 2522.000 | 1765.00 |
| Z | -.308 | -.855 | -4.156 | -.118 | -.325 | -.021 | -5.26 |
| Sig. asymptotique (bilatérale) | .758 | .393 | .000 | .906 | .745 | .983 | .00 |
| Sig. exacte (bilatérale) | .760 | .395 | .000 | .908 | .747 | .985 | .00 |
| Sig. exacte (unilatérale) | .380 | .198 | .000 | .454 | .374 | .492 | .00 |
| Point de probabilité : | .001 | .001 | .000 | .001 | .001 | .001 | .00 |

a. Variable de regroupement : Gender
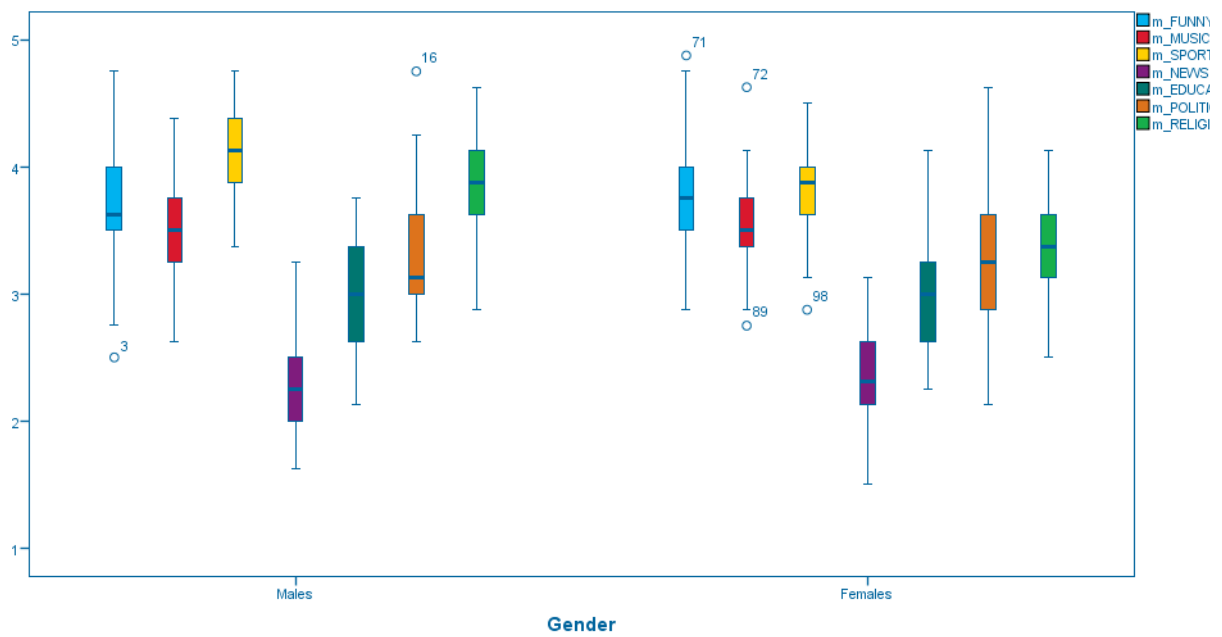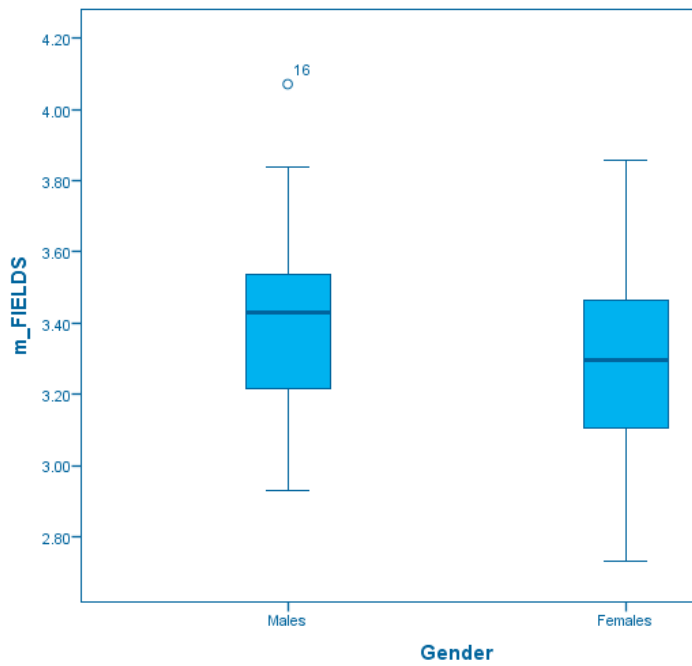
**Figure 35: effect of gender on domains**

The results show that there is a very significant effect of gender on the domains sport and religion (p = 0.000) with a median of answers for males (3.50) and for females (3.30) discarding the SS categories.

For the domain of sport, the median answer for males is above (4) while for women it is below (4) meaning both agree on finding the SS categories in both languages Fr and Ar.

For the domain of religion, the median answer for males is just above (4) while for women it is just below (4) meaning both agree on finding the SS categories in both languages Fr and Ar.

**As a conclusion, the results show a very significant effect of gender on the domains sport and religion.**

### 4.2.6. Results for Language in all SS Categories in Every Domain

At this step, the gender is not taken into consideration and the results show the influence of language Fr and Ar on the different domains with SS categories included. (LANGUAGE x Domain).

|            | Language | Rang moyen % : | p-value |
|------------|----------|----------------|---------|
| Q_A_FUNNY  | FR       | 50.445         | 0.922   |
|            | AR       | 50.055         |         |
|            |          |                |         |
| Q_B_FUNNY  | FR       | 48.575         | 0.352   |
|            | AR       | 51.925         |         |
|            |          |                |         |
| Q_C_FUNNY  | FR       | 40.0925        | 0.000   |
|            | AR       | 60.4075        |         |
|            |          |                |         |
| Q_D_FUNNY  | FR       | 50.0875        | 0.933   |
|            | AR       | 50.4125        |         |
|            |          |                |         |
| Q_A_MUSIC  | FR       | 46.945         | 0.086   |
|            | AR       | 53.555         |         |
|            |          |                |         |

| Q_B_MUSIC | FR | 51.665 | 0.465 |
| | AR | 48.835 | |
| | | | |
| Q_C_MUSIC | FR | 55.5875 | 0.005 |
| | AR | 44.9125 | |
| | | | |
| Q_D_MUSIC | FR | 57.39 | 0.000 |
| | AR | 43.11 | |
| | | | |
| Q_A_SPORT | FR | 57.7375 | 0.000 |
| | AR | 42.7625 | |
| | | | |
| Q_B_SPORT | FR | 47.6 | 0.101 |
| | AR | 52.9 | |
| | | | |
| Q_C_SPORT | FR | 33.45 | 0.000 |
| | AR | 67.05 | |
| | | | |
| Q_D_SPORT | FR | 27.74 | 0.000 |
| | AR | 72.76 | |
| | | | |
| Q_A_NEWS | FR | 55.1 | 0.001 |
| | AR | 45.4 | |
| | | | |
| Q_B_NEWS | FR | 70.275 | 0.000 |
| | AR | 30.225 | |
| | | | |
| Q_C_NEWS | FR | 44.07 | 0.002 |
| | AR | 56.43 | |
| | | | |
| Q_D_NEWS | FR | 56.625 | 0.001 |
| | AR | 43.875 | |
| | | | |
| Q_A_EDUCATION | FR | 54.525 | 0.019 |
| | AR | 45.975 | |
| | | | |
| Q_B_EDUCATION | FR | 62.4675 | 0.000 |
| | AR | 38.0325 | |
| | | | |
| Q_C_EDUCATION | FR | 69.925 | 0.000 |
| | AR | 30.575 | |
| | | | |

| | | | |
|---|---|---|---|
| Q_D_EDUCATION | FR | 63.1525 | 0.000 |
| | AR | 37.3475 | |
| | | | |
| Q_A_POLITICS | FR | 36.745 | 0.000 |
| | AR | 63.755 | |
| | | | |
| Q_B_POLITICS | FR | 38.7 | 0.000 |
| | AR | 61.8 | |
| | | | |
| Q_C_POLITICS | FR | 47.8825 | 0.237 |
| | AR | 52.6175 | |
| | | | |
| Q_D_POLITICS | FR | 50.51 | 0.896 |
| | AR | 49.99 | |
| | | | |
| Q_A_RELIGION | FR | 69.6275 | 0.000 |
| | AR | 30.8725 | |
| | | | |
| Q_B_RELIGION | FR | 65.99 | 0.000 |
| | AR | 34.51 | |
| | | | |
| Q_C_RELIGION | FR | 65.995 | 0.000 |
| | AR | 34.505 | |
| | | | |
| Q_D_RELIGION | FR | 64.8 | 0.000 |
| | AR | 35.7 | |

**Table 28: MWW Analysis of Language in relation with domains**

The next step is to isolate significant results only, for the purpose of analysis as shown below:

| Domain | Language | Percentage of answers for males & females (N=100) | p-value (Significant effect) |
|---|---|---:|---:|
| Q_C_FUNNY | FR | 40.0925 | 0.000 |
|  | AR | 60.4075 |  |
|  |  |  |  |
| Q_C_MUSIC | FR | 55.5875 | 0.005 |
|  | AR | 44.9125 |  |
|  |  |  |  |
| Q_D_MUSIC | FR | 57.39 | 0.000 |
|  | AR | 43.11 |  |
|  |  |  |  |
| Q_A_SPORT | FR | 57.7375 | 0.000 |
|  | AR | 42.7625 |  |
|  |  |  |  |
| Q_C_SPORT | FR | 33.45 | 0.000 |
|  | AR | 67.05 |  |
|  |  |  |  |
| Q_D_SPORT | FR | 27.74 | 0.000 |
|  | AR | 72.76 |  |
|  |  |  |  |
| Q_A_NEWS | FR | 55.1 | 0.001 |

| | | | |
|---|---|---|---|
| | AR | 45.4 | |
| | | | |
| Q_B_NEWS | FR | 70.275 | 0.000 |
| | AR | 30.225 | |
| | | | |
| Q_C_NEWS | FR | 44.07 | 0.002 |
| | AR | 56.43 | |
| | | | |
| Q_D_NEWS | FR | 56.625 | 0.001 |
| | AR | 43.875 | |
| | | | |
| Q_A_EDUCATION | FR | 54.525 | 0.019 |
| | AR | 45.975 | |
| | | | |
| Q_B_EDUCATION | FR | 62.4675 | 0.000 |
| | AR | 38.0325 | |
| | | | |
| Q_C_EDUCATION | FR | 69.925 | 0.000 |
| | AR | 30.575 | |
| | | | |

| Q_D_EDUCATION | FR | 63.1525 | 0.000 |
|---|---|---|---|
|  | AR | 37.3475 |  |
|  |  |  |  |
| Q_A_POLITICS | FR | 36.745 | 0.000 |
|  | AR | 63.755 |  |
|  |  |  |  |
| Q_B_POLITICS | FR | 38.7 | 0.000 |
|  | AR | 61.8 |  |
|  |  |  |  |
| Q_A_RELIGION | FR | 69.6275 | 0.000 |
|  | AR | 30.8725 |  |
|  |  |  |  |
| Q_B_RELIGION | FR | 65.99 | 0.000 |
|  | AR | 34.51 |  |
|  |  |  |  |
| Q_C_RELIGION | FR | 65.995 | 0.000 |
|  | AR | 34.505 |  |
|  |  |  |  |
| Q_D_RELIGION | FR | 64.8 | 0.000 |
|  | AR | 35.7 |  |

**Table 29: significant results in ss Category x Domain x Language**

We notice that there are significant results in all the domains in relation to language in some categories of SS support as illustrated with the boxplots.

- **Funnyshows/ entertainment: Q_C Self-Esteem**
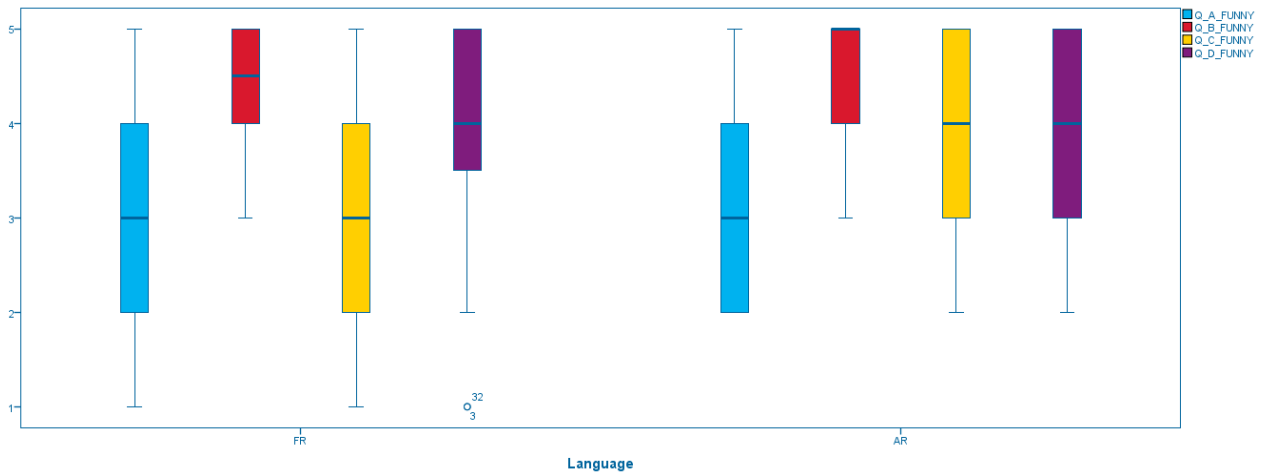


**Figure 36: Funny shows/ entertainment: Q_C x Language**

In Funny shows/Entertainment, we notice that there is a difference in in the SS category QC 'Self esteem' with a median of answers in Fr language of 3 and Ar language 4.

**We conclude that in the domain of funny shows/entertainment, facebookers neither agree not disagree that they are looking for 'self esteem' when they interact in Fr language, but agree that they are looking for this SS category when interacting in Ar. Therefore, language is a significant factor for 'self – esteem' in funny shows/entertainment.**

- **Music :Q_C Self-Esteem, Q_D Appraisal Support**
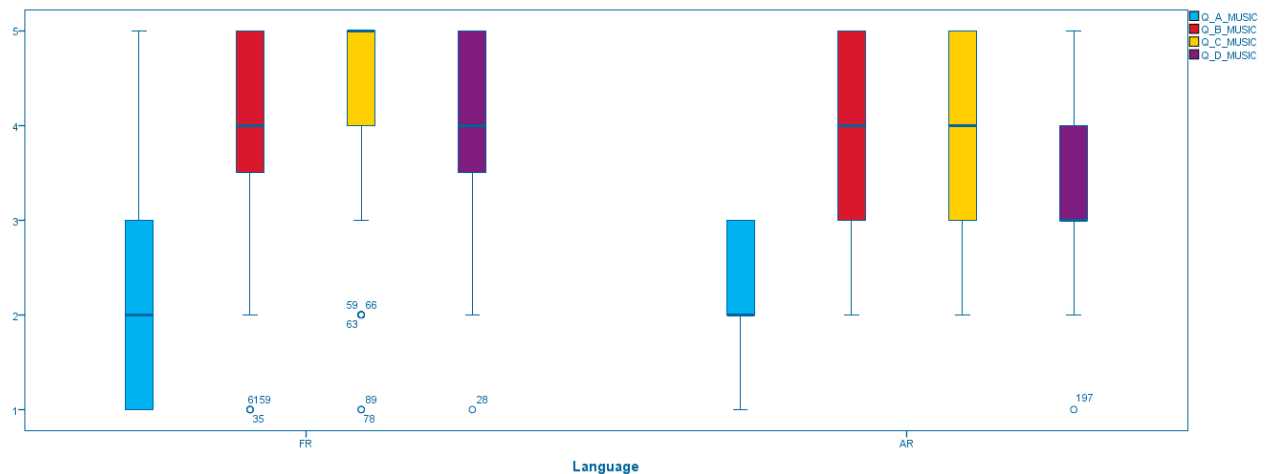


**Figure 37: Music :Q_C, Q_D x Language**

In music, we notice that there is a difference in the SS category QC 'Self esteem' with a median of answers in Fr language of 5 and Ar language 4. In addition, there is also a difference in the SS category 'Appraisal' with a median of answers in Fr language of 4 and Ar language of 3.

**We conclude that in the domain of music, facebookers strongly agree that they are looking for 'self esteem' when they interact in Fr language, but agree that they are looking for this SS category when interacting in Ar. Furthermore, they agree about the presence of 'appraisal' when talking in French but keep neutral about it when talking in Arabic.**

**Therefore, language is a significant factor for 'self –esteem' and 'appraisal' in music.**

- **Sport :Q_A Tangible support, Q_C Self-Esteem, Q_D Appraisal Support**
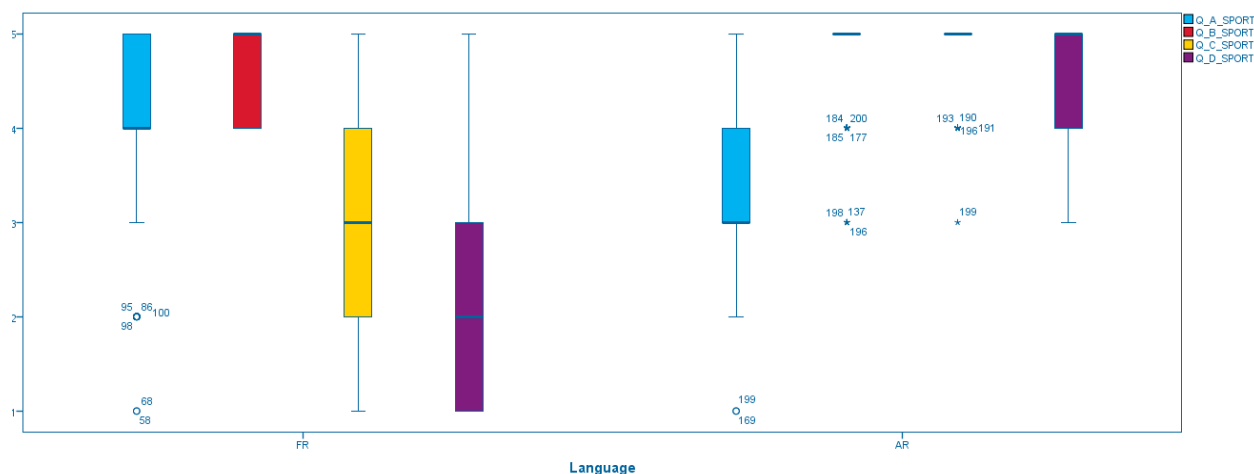


**Figure 38: Sport :Q_A, Q_C, Q_D x Language**

In sport, we notice that there is a difference in the SS category QA 'Tangible support' with a median of answers in Fr language of 4 and Ar language 3. In addition, there is also a difference in the SS category 'Self esteem' with a median of answers in Fr language of 3 and Ar language of 5. Also, for 'appraisal support', the median is 2 in Fr and 5 in Ar.

**We conclude that in the domain of sport, facebookers agree that they are looking for 'Tangible support' when they interact in Fr language, but keep neutral about it when talking in Arabic.Furthermore, they neither agree nor disagree about the presence of 'self esteem' when talking in French but strongly agree about it when talking in Arabic. Additionally, they disagree about 'appraisal support' in the Fr language but strongly agree about it in the Arabic language.**

**Therefore, language is a significant factor for 'tangible support', 'self esteem' and 'appraisal' in sport.**

- **News :Q_A Tangible support, Q_B Belonging, Q_C Self-Esteem, Q_D Appraisal Support**
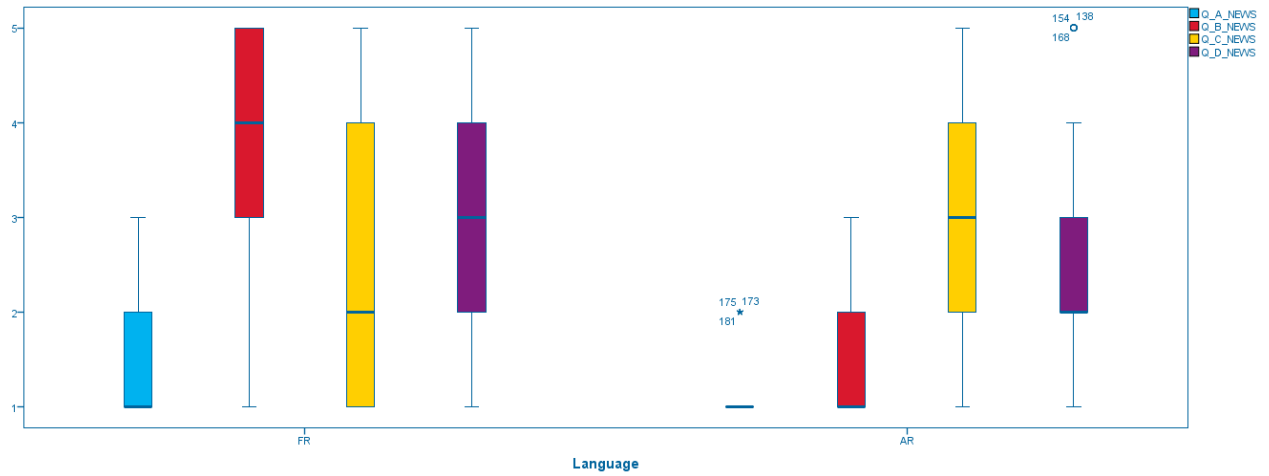


**Figure 39: News: Q_A, Q_B, Q_C, Q_D x Language**

In news, we notice that there is a difference in the median of answers in all the SS categories

**Therefore, language is a significant factor for 'tangible support', 'belonging', 'self esteem' and 'appraisal' in news.**

- **Education :Q_A Tangible support, Q_B Belonging, Q_C Self-Esteem,Q_D Appraisal Support**
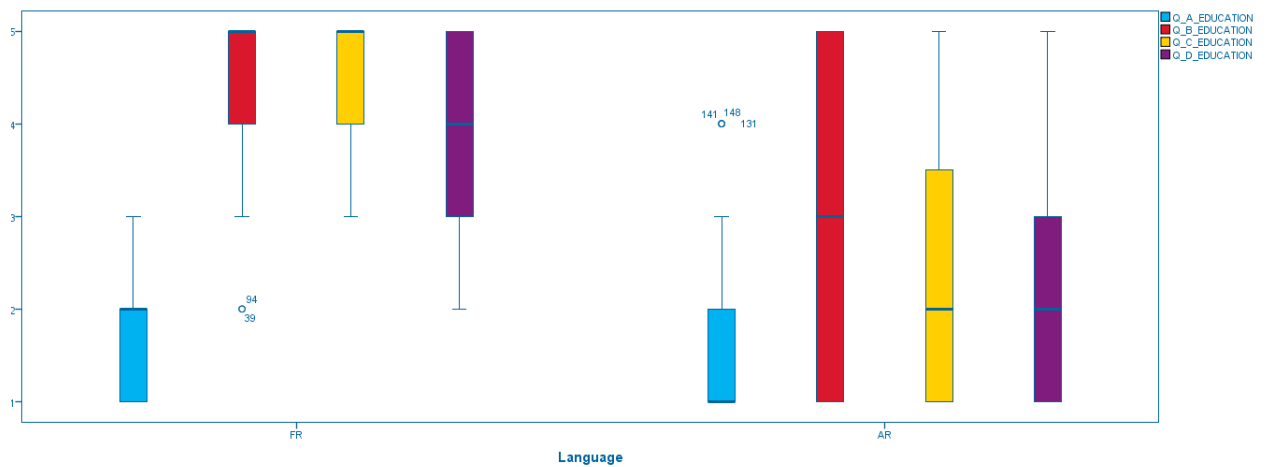


**Figure 40: Education Q_A, Q_B, Q_C, Q_D x Language**

In education, we notice that there is a difference in the median of answers in all the SS categories

**Therefore, language is a significant factor for 'tangible support', 'belonging', 'self esteem' and 'appraisal' in education.**

- **Politics: Q_A Tangible support, Q_B Belonging,**
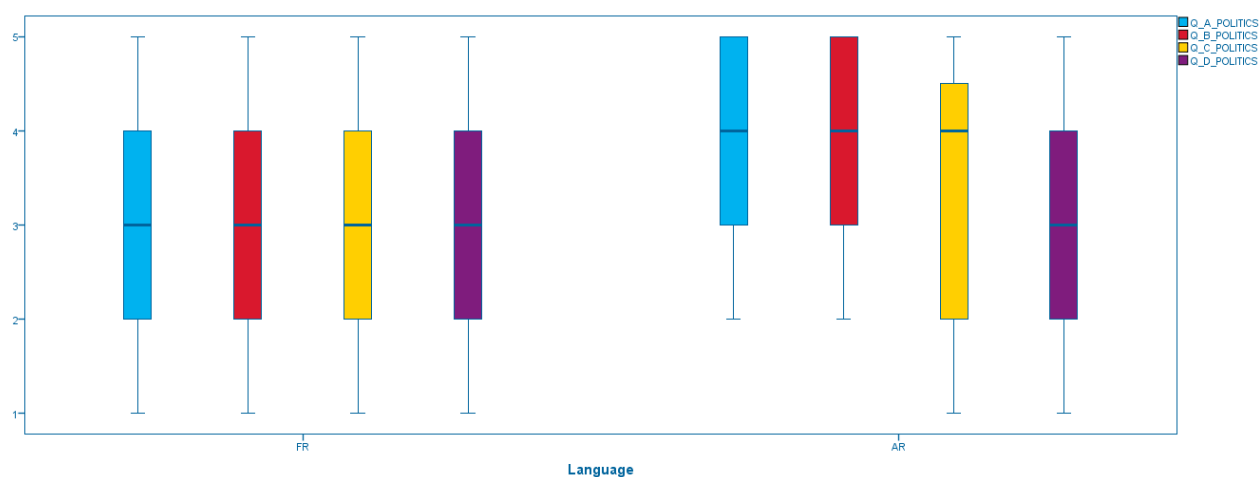


**Figure 41: Politics Q_A, Q_B x Language**

In politics, we notice that there is a difference in the SS category QA 'Tangible support' with a median of answers in Fr language of 3 and Ar language of 4. In addition, there is also a difference in the SS category 'Belonging' with a median of answers in Fr language of 3 and Ar language of 4.

**We conclude that in the domain of politics, facebookers neither agree nor disagree that they are looking for 'tangible support' when they interact in Fr language, but agree that they are looking for this SS category when interacting in Ar. Furthermore, they are neutral about the presence of 'belonging' when talking in French but agree about it when talking in Arabic.**

**Therefore, language is a significant factor for 'tangible support 'and 'belonging' in politics.**

- **Religion: Q_A Tangible support, Q_B Belonging, Q_C Self-Esteem, Q_D Appraisal Support**
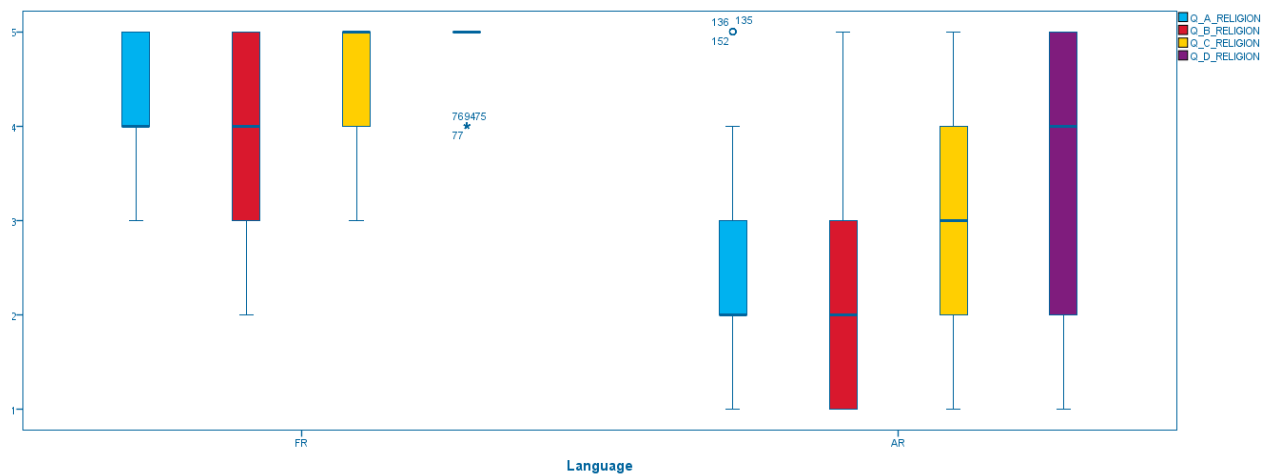


**Figure 42: Religion Q_A, Q_B, Q_C, Q_D x Language**

In religion, we notice that there is a difference in the median of answers in all the SS categories

**Therefore, language is a significant factor for 'tangible support', 'belonging', 'self esteem' and 'appraisal' in religion.**

### 4.2.7. Significant Effects for Domain x Language

Another unexpected result from the MWW test is the presence of a main effect of language on the domains (discarding gender and SS categories) since the results show a significant effect with a P value below 0.05 in all the domains as illustrated below:

| | m_FUNNY | m_MUSIC | m_SPORT | m_NEWS | m_EDUCATION | m_POLITICS | m_RELIGION |
|---|---|---|---|---|---|---|---|
| U de Mann-Whitney | 3760.500 | 3830.500 | 782.500 | 2241.000 | 484.000 | 2680.500 | 398.000 |
| W de Wilcoxon | 8810.500 | 8880.500 | 5832.500 | 7291.000 | 5534.000 | 7730.500 | 5448.000 |
| Z | -3.053 | -2.893 | -10.380 | -6.793 | -11.080 | -5.700 | -11.295 |
| Sig. asymptotique (bilatérale) | .002 | .004 | .000 | .000 | .000 | .000 | .000 |
| Sig. exacte (bilatérale) | .002 | .004 | .000 | .000 | .000 | .000 | .000 |
| Sig. exacte (unilatérale) | .001 | .002 | .000 | .000 | .000 | .000 | .000 |
| Point de probabilité : | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

a. Variable de regroupement : Language

**Table 30: significant results for domains x language.**

Significant effects are found in the domains of funny shows/entertainment and music in addition to very significant effects in the domains of sport, news, education, politics and religion in relation to language use.
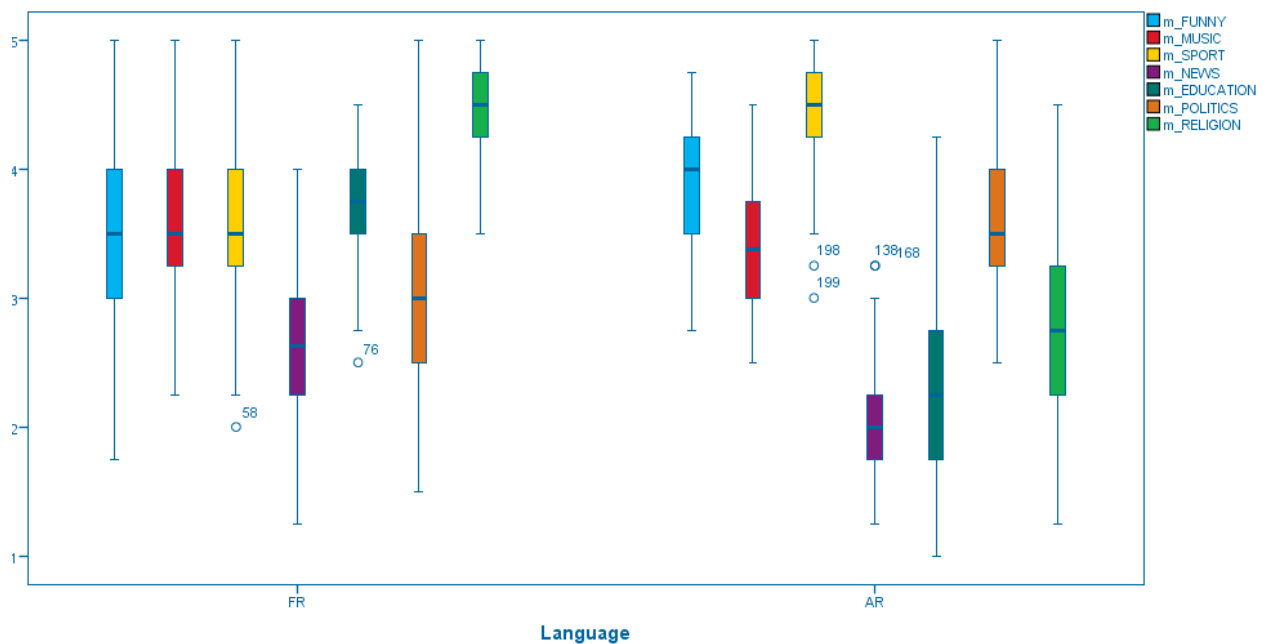


**Figure 43: boxplot representing the relation Domain x Language.**

**As a conclusion, when Algerian people connect on facebook, language is a factor of change depending on the domains. This means that their attitude or behavior is not the same when they talk about religion in French and religion in Arabic for example.**

### 4.2.8. Summary

In this part, all the results related to this investigation of computer mediated communication have been displayed. The next step is to take out only the significant and main effects in order to make a full analysis and interpretation.

## 4.3. Part Two: Analysis and Interpretation
### 4.3.1. Introduction

In this part, significant outcomes from data results will be analysed and explained in an attempt to verify the validity of the three research questions as well as the hypotheses set at the beginning of this investigation.

### 4.3.2. Summary of The main Results

The following table groups the main outcomes and significant results from the preceding analysis:

- **Results for SS Categories with Gender for Fr Facebook Group**

There is a main effect of gender with females scoring higher (totally agree) than males in the domain of music Fr for the SS category 'Appraisal'.

In other words, women totally agree that they are looking for 'appraisal' when talking about music and expressing themselves in French.

There is a main effect of gender with males scoring higher (agree) than females in the domain of sport Fr for the SS category 'Self-esteem'.

In other words, men agree that they are looking for 'self esteem' when talking about sport and expressing themselves in French.

There is a main effect of gender with females scoring higher (totally agree) than

males in the domain of education Fr for the SS category 'Self-esteem'.

In other words, women totally agree that they are looking for 'self esteem' when talking about education and expressing themselves in French.

- **Results for SS Categories with Gender for Algerian Arabic Facebook Group**

There is a main effect of gender with males scoring higher (totally agree) than females in the domain of sport Ar for the two SS categories 'Tangible Support' and 'Appraisal'. In other words, men totally agree that they are looking for both 'Tangible Support' and 'Appraisal' when talking about sport (mainly football in this case) and expressing themselves in Arabic.

There is a main effect of gender with males scoring higher than females in all the SS categories. In other words, unlike females, men agree that they are looking for all the SS categories 'Tangible Support', 'Belonging', Self-Esteem' and 'Appraisal' when talking about religion and expressing themselves in Arabic.

- **Significant Effect for Gender in both Languages Fr and Ar**

There is a very significant effect of gender on the domains sport and religion.

- **Results for Language in all SS Categories in Every Domain**

In the domain of funny shows/entertainment, facebookers neither agree not disagree that they are looking for 'self esteem' when they interact in Fr language, but agree that they are looking for this SS category when interacting in Ar. Therefore, language is a significant factor for 'self –esteem' in funny shows/entertainment.

In the domain of music, facebookers strongly agree that they are looking for 'self

esteem' when they interact in Fr language, but agree that they are looking for this SS category when interacting in Ar. Furthermore, they agree about the presence of 'appraisal' when talking in French but keep neutral about it when talking in Arabic.

Therefore, language is a significant factor for 'self –esteem' and 'appraisal' in music.

In the domain of sport, facebookers agree that they are looking for 'Tangible support' when they interact in Fr language, but keep neutral about it when talking in Arabic. Furthermore, they neither agree nor disagree about the presence of 'self esteem' when talking in French but strongly agree about it when talking in Arabic. Additionally, they disagree about 'appraisal support' in the Fr language but strongly agree about it in the Arabic language.
Therefore, language is a significant factor for 'tangible support', 'self esteem' and 'appraisal' in sport.

Language is a significant factor for 'tangible support', 'belonging', 'self esteem' and 'appraisal' in news.

In the domain of politics, facebookers neither agree nor disagree that they are looking for 'tangible support' when they interact in Fr language, but agree that they are looking for this SS category when interacting in Ar. Furthermore, they are neutral about the presence of 'belonging' when talking in French but agree about it when talking in Arabic.

Therefore, language is a significant factor for 'tangible support ' and 'belonging' in politics.

Language is a significant factor for 'tangible support', 'belonging', 'self esteem' and 'appraisal' in religion.

- **Significant Effects for  Domain x Language**

When Algerian people connect on facebook, language changes depending on the domains. This means that their attitude or behaviour is not the same when they talk about religion in French and religion in Arabic for example.

### 4.3.3. Interpretation

#### 4.3.3.1.   The First Research Question

This is a reminder of the first research question:

- ✓ RQ1: when online, people would unconsciously seek comforting (social support) whatever the topic of the community they choose to enroll in (music, politics, sport…etc).What kind of Social Support is sought for in every topic ?: appraisal support, belonging support, tangible support or/and self-esteem?

On a large scale of 3000 informants, the quantitative study has allowed to select the popular topics (coined as 'domains' throughout this research in line with literature related to computer mediated communication) to be investigated namely : Funny shows/entertainment, music, sport, news, education, politics and religion.

As 1400 informants have all answered the questionnaire related to Social Support and different categories were significant in the study (Religion, sport…etc), so we have verified that indeed, social support exists, is present and therefore when people connect online and join a group, they unconsciously seek one category (or more) of social support.

The next part aims to uncover which category of social support is predominant in every domain.

The results shows that :

- ✓ *Appraisal* is predominant in Music, for women when talking in French.
- ✓ *Self-esteem* is predominant in Sport, for men when talking in French.
- ✓ *Self-est*eem is predominant in Education, for women when talking in French.
- ✓ Both *Tangible support* and *appraisal* are predominant in Sport, for men when talking in Arabic.

The answer of the first research question is done and valid since the results are significant. In addition, the first hypothesis is verified which previously stated that:

- H1: In joining different facebook groups, Algerians not only want to contribute in a given topic (music, sport, fun…etc) but also unconsciously seek SOCIAL SUPPORT online thanks to the anonymity and special environment that internet offers.

So, finding that people go to facebook for social support is no surprise as already explored by Riding and Gefen (Ridings & Gefen, 2006) who made a large survey asking 'why do people hang out online? The reasons were (a) information exchange followed by (b) social support and finally (c) friendship among members in communities dealing with personal interests/hobbies, pets or recreation.

The results of the first research question also prove that facebookers connect to find social support when dealing with personal hobbies/interests.

Also, in very popular empirical investigation in computer-mediated discussions, it was found that the freedom to express views and to receive social support were the main reasons individuals joined and used virtual communities.(Herring, 1996)

In daily life, social support is important because it addresses a need for self-identity according to Hogg (Hogg, 1996) while for Watson and Johnson (G. Watson & Johnson, 1972), the individual motivation to join groups is for the personal feeling of belonging to a community. In this context, Thoits (P.A Thoits, 1982) states that: "*Social support is the degree to which a person's basic social needs are gratified through interaction with others*".

Throughout this thesis, the notion of social support followed was the one of house (J. S. House, 1981) who defined the concept as "*A flow of emotional concern, instrumental aid, information, and/or appraisal between people*" (p.26)

**At this level, what I have added to the literature, is that my community is different since it concerns Algerians, a North African society, and have depicted the types of social support related to them (appraisal, self esteem and tangible support) in a larger set of domains; music, sport, education.**

**Therefore, Algerians also go to facebook in order to find social support.**

### 4.3.3.2. The Second Research Question

This is a reminder of the second research question:

✓ RQ2: is there any difference in the dominating types of OSS for Algerian Arabic and French speaking communities?

The large sample of population comprised two essential groups, one of Algerian facebookers interacting in French and the other of Algerian facebookers interacting in Algerian Arabic. The results of the survey indicate indeed a strong link and a significant main effect of language use.

The results of this question show that we find dominating types of OSS in the same domain for Ar Facebook groups different than the ones found for Fr facebook groups. In other words, when interacting in a given topic (the same : sport for example), Algerian facebookers will not look for the same SS category when talking in French and when talking in Arabic.

For a better analysis, the results show:

A. In the domain of funny shows/entertainment: facebookers are 'neutral' about the presence of self esteem when talking in Fr, but 'agree' about this category when they talk in AArabic.

B. In the domain of music: facebookers 'strongly agree' about the presence of self esteem when talking in Fr, but 'agree' about this category when they talk in AArabic.

In this same domain, they 'agree' Vs 'neutral' about appraisal in Fr and AA respectively.

C. In the domain of sport: facebookers 'agree' about the presence of tangible support when talking in Fr, but are 'neutral' about this category when they talk in AArabic.

In this same domain, they are 'neutral' Vs 'strongly agree' about self-esteem in Fr and AA respectively. Also they 'disagree' about appraisal in facebook Fr but 'strongly agree' in facebook AA.

D. In the domain of politics: facebookers are 'neutral' about the presence of tangible support when talking in Fr, but 'agree' about this category when they talk in AArabic.

In this same domain, they are 'neutral' Vs 'agree' about belonging in Fr and AA respectively.

E. In the domains of News, Education and Religion, different opinions are given in the four (04) categories depending on the language used ; French or Algerian Arabic.

The hypothesis set for this question was:

 ✓ H2: the dominating type of social support will vary according to the topic and/or age and gender.

**Indeed, the first part of this hypothesis is verified since yes, social support varies according to the topic.**

How is this difference explained? Why is it that these facebookers look for tangible support when talking about news in French but look for appraisal when they switch to Algerian Arabic? What is the role and the influence of language on us?

One possible answer resides on the reason behind the attraction to social support through CMC. On a study made by (Walther & Boyd, 2002) in this context, they identify twelve (12) ways of potential attractions of electronic social support as follows:

> "…*candor (both less harsh and more forthright responses to problems), less negative judgement, reduced obligation to reciprocate support, less relational dependency, more immediate ability to seek support, greater expertise in the network, stigma management, intimacy, access, uninterrupted composition, more expressive communication, and anonymity.*"

After observation, one would notice that the suggested twelve ways match the sample population studied in this research, although it would be interesting to verify the validity of the cited research on Algerian society (possible future investigation).

Findings (Walther & Boyd, 2002)suggest that users recognize several benefits of on-line social support, which resulted in four dimensions:

(1) They are aware of the kinds of people and relationship in which they transact their concerns, as seen in social distance; this distance provided greater expertise, stigma management, and more candor.

(2) The level of anonymity with which their actual identity may be associated.

(3) The affordances of the medium in optimizing their expressiveness, turns, and ongoing obligations, in interaction management; and

(4) the ability to seek or provide support anytime, in terms of access

Additionally, a recent study in relation to computer mediated communication in Algeria suggests that studying features of speech and writing from a general point of view only is not sufficient, psychological dimensions should be explored too since they play a very prominent part in investigating the spoken/written properties of Algerian CMC (Zitouni Bounader, 2012) (p.238). So undertaking the current investigation constitutes a 'complement' to the study of the Algerian webosphere.

On the other hand, (Leppänen & Peuronen, 2012) state that:

> *"…[in] computer-mediated discourse, identity and sociocultural practice have often proved to be important explanatory perspectives. Multilingual resources have been shown to be part of the indexical means through which identities and a sense of shared social world can be constructed and negotiated, contested and policed".*

Also,(Androutsopoulos, 2013)has shown how participants can signal their interpersonalrelations and alignments through code switching and style shifting between social varieties.

**An interesting conclusion from the current research is that there is a 'social support alteration' associated with language use. No literature is available related to this matter. So, research should be encouraged related to social support and language alteration in multilingual communities.**

**One possible explanation for this difference of SS according to AA or Fr language is that it reflects a constant negotiation of identity and sociocultural practice.**

- The second hypothesis set at the beginning of this work was: The dominating type of social Support will vary according to the topic and/or age and gender.

As we have just confirmed that indeed it varies according to the topic, there was a main and very significant effect reflecting that it strongly varies according to gender.

As previously mentioned, the 'age' was discarded from the study due to a high percentage of online users who did not say the truth about it. (group of Music FR, age error of more than 40%).

This is explained by the fact that in online communication, the social cues are not the same as in face-to-face interaction. For instance, 'Education' can be reflected in the sophisticated use of language with a good mastery of grammar and vocabulary but not the other social features. This iother researchers working on CMD have also encountered this issue and the choice each time is to discard age and keep gender as in:

> *"...age is often revealed through the preoccupations and life experiences communicated in message content (Herring, 1998c). Most apparent of all is participant gender, which is indicated by participants' names in asynchronous discussion groups, and is often a focus of conscious attention even in 10 pseudonymous synchronous CMD".*(Herring & Androutsopoulos, 2015).

Throughout this study, a main effect of gender on domains, SS categories and language choice (Fr/AA) has been noticed as follows:

In order not to repeat all the sequences mentioned before (see significant effects in Chapter Four), some examples are stated below:

- ✓ For men, the SS category 'self esteem' is predominant for the domain of Sport in Facebook Fr.
- ✓ For women, the SS category 'self esteem' is predominant for the domain of Education in Facebook Fr.

In fact, although the other factors investigated in this dissertation should not be neglected (domain, SS category, language), the most significant effects are found for gender. The main result through this study is the influence and tight bond of gender in CMD for Algerian net users.

Recent literature linking the relationship of gender with CMD confirms the focal role of gender as in:

In Italy, *"females posted more and longer SMS and used more non-standard forms, contrary to previous gender-related findings in the sociolinguistics and CMC literatures."*(Herring & Zelenkauskaite, 2008).

In a comparison of Lithuanian and Croatian typography in chat, Zelenkauskaite and Herring (Zelenkauskaite & Herring, 2006)found that "*female users tended to use 'softer' consonants, palatalizing them, whereas male users tended to use more innovative forms, associated with English and technology, and [to] disassociate themselves with the feminine 'palatalizing' tendency*" (p. 15).

In the Arab world, much closer to the current studied sample, some literature is also found related to Gender and CMD.(ref) found that old theories on men dominance in mixed-sex conversations are not applicable in CMD, especially in online programs related to education. Like in:

in conceiving educational online programs and interfaces, educators or designers should not consider gender as an issue in CMC and should, may be, focus on other variables such as age, social status, origin, familiarity with CMC, etc.(Khalsi, 2013)

Others question if there is a digital divide among Arab Americans, in order to examine their online behaviors to see if they employ the internet to enhance their life position. They recommend for this study to include demographic factors, such as age, education, **gender**, and socioeconomic level, in studying whether there is a digital divide among Arab Americans.(Muhtaseb & Frey, 2008)

On the anonymity and CMC, for many Arab women, their anonymity is an important aspect of their experiences in social networking. For many it is the safest way in which they can vent frustrations, and share opinions openly and honestly without any backlash from their families and communities. It would be irresponsible for a researcher to then draw attention to individual blogs, or other

social networking pages, whereby women have attempted to stay anonymous (Abdullatif, 2013)

In a study about Saudi Arabians, it has been found that minimal cross-gender communication is apparent in discussion forums but despite comparatively little uptake of direct cross-gender communication, the online forums extend the horizons of mixed communication among Saudi Arabians for both males and females(Madini & de Nooy, 2016).

As for (im)politeness, gender and CMD, both politeness and impoliteness exist in the Arabic discourse of social media network website, Facebook. As in:"*It is found that females tend to use politeness more than males do; however, males use impoliteness more than females do. This finding supports the view of women's language by many scholars such as Coast (1996), Tannen's (1991), and Holmes 1995).*"(Al-Shlool, 2016). The researcher continues by saying :

> "Furthermore, females seem to comment or post more depending on their interest in the topic. The number of the collected samples by females noticeably is less when the topic is related to sport or politics. Conversely, the number of the collected samples by males is more when the topic is related to sport or music." (Al-Shlool, 2016:52)

Although the current study is not about impoliteness, but the link between the domains and gender for Al-Schlooi is of close interest. She has found that in the domains 'sport' and 'politics' women's voice is discreet but when it comes to 'music' and 'sport', men's dominance is present. Notice that this study has been mainly done in Saudi Arabic.

**As a prelude to the next research question,  I have found that in Algeria males have the highest opinions in the domains of  'Sport' and 'Religion' (whatever the language used, French or Algerian Arabic), while women's voice is on 'music' and 'education'.**

### 4.3.3.3.  The Third Research Question

The third research question asks:

- ✓ RQ3:Is there a relationship between online social support, language use, gender and age?

Discarding age as previously stated, through research question 1 and 2, we have proved the link and strong relationship between online social support, language use, gender.

In this part, a special focus is devoted to the relationship between gender and language use, for the significant results are abundant in this sense (see significant results in chapter four) and that the opinion of the participants differs depending on the language (Fr or AA), as well as their choice for the category of social support and the domain of discussion.

For instance in the domain of sport, men would look for the  SS categories ' tangible support' and 'appraisal' when talking in Arabic, but 'self esteem' when talking in French.

**As a conclusion, when Algerian people connect on facebook, language is a factor of change depending on the domains. This means that their attitude or behavior is not the same when they talk about religion in French and religion in Arabic for example.**

On Arabic linguistics and in a study about the future of MSA in CMC, Ramsay,G. states that: "*the question of language variety in the Arabic speaking world has far reaching implications ranging from politics and religion to gender and class, coming to terms with this problematic is all the more urgent*".(Ramsay, 2013)

The very significant effect in this study is gender on language. The results show that in sport and religion, whatever the language used (Fr or AA), males and females have significantly different opinions (from strongly disagree to strongly agree on a Likert scale).

In addition, the score (%) of males having the same opinion is statistically higher than the one of females. **From this, we conclude that there is a big influence of gender on the domains of sport and Religion.**

How is this male dominance in CMC context explained?

In the nineties, it was explained by a digital divide like in "*men control public discourse and women communicate more often in private settings*" (Coates, 1993).

While ten years later, conclusions draw that "*public CMC is predominantly a male preserve*"(Herring, 2000). Herring continues by stating that

Regardless of whether one views this trend as a failure of the great civil libertarian experiment that was the Internet of the 1980's and 1990's to produce a workable online society, as a technological advance, or as the inevitable conquest of creeping commercialism, it stands to have implications for the territory that men and women will occupy-and no doubt, dispute-on the Internet of the 21st century.

So, is internet dominated by males rather than females, the answer is not yet clear. But many studies attest of the digital divide and digital difference for males and females on the internet (the case of the current research too).

The third hypothesis stated that:

- ✓ H3: no difference will be found in the types of social support for the Algerian web users with a dominating Arabic use and the ones with a dominating French use whatever the social factor; age and/or gender because they belong to the same society/culture.

Unlike what stated in the third hypothesis, it has been proved that the social factor gender is a significant agent of change in language use (Fr and AA), domains and type of Social Support.

This difference is also explained by the role of women in the studied society. In the current one, I explain this difference by male patriarchy in the Algerian society which is reflected on CMC as well.

In an occidental society, Herring (2000) goes further by saying:

> *"Each activity carries with it cultural expectations concerning the appropriate role of women which are reflected in their status as minor discourse participants, and as sex objects, respectively, both being roles which define women in relation to the interests of men."*

Finally, as for the implication of Gender in CMC for future research, Herring posits:

> Computer networks do not guarantee gender-free, equal-opportunity interaction, any more than any previous communication technology has had that effect. The main reason seems to be that people generally do not-and in most cases, it seems, do not want to-disguise their gender when they engage in interaction with other people online, even when their gender works to their disadvantage. These findings call for further research to explain why binary gender persists in CMC, including what positive social functions it fulfills (e.g., flirting in chat environments, which often invokes binary gender stereotypes, appears to be enjoyable for young adults).(Herring, 2000)

### 4.4.Conclusion

The current research has shown the role of gender in computer mediated discourse in relation to domains, social support and language use (Fr or AA) in the popular social network Facebook.

Generally, the results are explained in the light of gender roles in the society which in fact are the same (or nearly) in CMC modes. In Algeria for example, the society is patriarchal with a male dominance and this study shows the same effect through the internet.

In addition, findings attest that some domains are more dominated by men like sport and religion while others are by women like music and education. From one side, it shows that there is a gender gap associated with a digital divide since a 'common' gender presence is not found in 'common' domains and topics, but at the same time this difference is not an issue. It is just the normal way things go, in all the societies of the world, as a universal theme, since men have preference for some domains and women for others. This is attested by many researchers in different parts of the globe, even in the notorious book of '*Men come from Mars and Women from Venus'*, the author explains that both gender have their peculiarities that should be taken into account to enhance cross-gender communication.(Gray, 1992)[22]

This gender difference in the domains and SS categories show an aspect of identity and maybe power as well linked to both sexes in the Algerian society.

Finally, the fact that both men and women change their attitude and behavior whether they talk in French or Arabic shows that the language question in Algeria is complex and controversial, with no difference between the real life and in computer mediated discourse,  and is linked with subconscious and psychological concerns in addition to personal ones.

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[22] The author explains that According to astrological theory, the planet MARS indicates the qualities such as stubbornness, hardship, hard work, adventure, pride, risk taking, gamble, free will, dominance and dynamism. While the planet VENUS symbolizes love, sensuality, affection, sacrifice compromise, homeliness, food, music, art, festivities, colors and variety.

# GENERAL CONCLUSION

# GENERAL CONCLUSION

The following investigation is a modest contribution to understand the behavior of Algerians 'behind the screen' and the results are very significant: there is a gender effect in Computer mediated discourse (gender as the only fixed variable) and this depends on the domain, language (French /Arabic) and the social support category.

Significant results show that males agree, debate, discuss, give the same answers (on a likert scale from strongly disagree to strongly agree) when it comes to religion and sport. But for women it is rather music and education.

These domains are of predilection for Algerian men and women with very significant effects.

Age was discarded because it is not valid in online community .In the group of music Fr, nearly 40% didn't provide their correct age . As a researcher, I was part of the group and I knew through private interactions with people that the average age was 30.The reason why age was not taken into consideration which goes with literature on CMC discarding age or other social cues because of the web environment(Paolillo, 2001).

Both quantitative and qualitative studies have been necessary for the validity of the results.

On a large scale of 3000 informants, the quantitative study has allowed to select the popular topics (coined as 'domains' throughout this research in line with literature related to computer mediated communication) to be investigated namely : Funny shows/entertainment, music, sport, news, education, politics and religion.

On the predominant Social Support category in every domain, the results show that:

- ✓ *Appraisal* is predominant in Music, for women when talking in French.
- ✓ *Self-esteem* is predominant in Sport, for men when talking in French.
- ✓ *Self-est*eem is predominant in Education, for women when talking in French.
- ✓ Both *Tangible support* and *appraisal* are predominant in Sport, for men when talking in Arabic.

So, finding that people go to facebook for social support is no surprise as already explored by Riding and Gefen (Ridings & Gefen, 2006) who made a large survey asking 'why do people hang out online? The reasons were (a) information exchange followed by (b) social support and finally (c) friendship among members in communities dealing with personal interests/hobbies, pets or recreation.

The results of the first research question also prove that facebookers connect to find social support when dealing with personal hobbies/interests.

Also, in very popular empirical investigation in computer-mediated discussions, it was found that the freedom to express views and to receive social support were the main reasons individuals joined and used virtual communities.(Herring, 1996)

In daily life, social support is important because it addresses a need for self-identity according to Hogg (1996) while for Watson and Johnson (1972), the individual motivation to join groups is for the personal feeling of belonging to a community. (Thoits, 1982 :147)

Throughout this thesis, the notion of social support followed was the one of House (1981) who defined the concept as a flow of emotional concern, instrumental aid, information, and/or appraisal between people.

**At this level, what I have added to the literature, is that my community is different since it concerns Algerians, a North African society, and have depicted the types of social support related to them (appraisal, self esteem and tangible support) in a larger set of domains; music, sport, education.**

**Therefore, Algerians also go to facebook in order to find social support.**

For the qualitative study, large sample of population comprised two essential groups, one of Algerian facebookers interacting in French and the other of Algerian facebookers interacting in Algerian Arabic. The results of the survey indicate indeed a strong link and a significant main effect of language use.

The results of this question show that we find dominating types of OSS in the same domain for Ar Facebook groups different than the ones found for Fr facebook groups. In other words, when interacting in a given topic (the same: sport for example), Algerian facebookers will not look for the same SS category when talking in French and when talking in Arabic.

So, it has been found that social support varies according to the topic. But how is this difference explained? Why is it that these facebookers look for tangible support when talking about news in French but look for appraisal support when they switch to Algerian Arabic? What are the roles and the influences of language on us?

One possible answer resides on the reason behind the attraction to social support through CMC. On a study made by (Walther & Boyd, 2002) in this context, they identify twelve (12) ways of potential attractions of electronic social support.

After observation, one would notice that the suggested twelve ways match the sample population studied in this research, although it would be interesting to verify the validity of the cited research on Algerian society (possible future investigation).

Findings (Walther & Boyd, 2002)suggest that users recognise several benefits of on-line social support, which resulted in four dimensions:

(1) They are aware of the kinds of people and relationship in which they transact their concerns, as seen in social distance; this distance provided greater expertise, stigma management, and more candor.

(2) The level of anonymity with which their actual identity may be associated.

(3) The affordances of the medium in optimizing their expressiveness, turns, and ongoing obligations, in interaction management; and

(4) The ability to seek or provide support anytime, in terms of access

Additionally, a recent study in relation to computer mediated communication in Algeria suggests that studying features of speech and writing from a general point of view only is not sufficient, psychological dimensions should be explored too since they play a very prominent part in investigating the spoken/written properties of Algerian CMC (Zitouni Bounader, 2012) (p.238). So undertaking the current investigation constitutes a 'complement' to the study of the Algerian webosphere.(Leppänen & Peuronen, 2012)

Also, Androutsopoulos (2013) has shown how participants can signal their interpersonal relations and alignments through code switching and style shifting between social varieties.

**An interesting conclusion from the current research is that there is a 'social support shift' associated with language use. No literature is available related to this matter. So, research should be encouraged related to social support and language shift in multilingual communities.**

**One possible explanation for this difference of SS according to AA or Fr language is that it reflects a constant negotiation of identity and sociocultural practice.**

As for the link between popular domains and bilingualism, a study about bilingualism and mass media in the internet states that music with bilingual lyrics thrived in the 1990s, ranging from Algerian Rai to African hip-hop, from Bollywood soundtracks to Korean pop. (Androutsopoulos, 2007)

This is explained by linguistic diversity which is gaining an unprecedented visibility in the media-scapes (late 20th and early 21st century).

Therefore, research on this field should be encouraged to promote a global linguistic diversity.

In fact, although the other factors investigated in this dissertation should not be neglected (domain, SS category, language), the most significant effects are found for gender. The main result through this study is the influence and tight bond of gender in CMD for Algerian net users.

Recent literature linking the relationship of gender with CMD confirms the focal role of gender as in:

> In Italy for example, females posted more and longer SMS and used more non-standard forms, contrary to previous gender-related findings in the sociolinguistics and CMC literatures."(Herring & Zelenkauskaite, 2008).

In a comparison of Lithuanian and Croatian typography in chat, Zelenkauskaite and Herring (2006)found that female users tended to use 'softer' consonants, palatalising them, whereas male users tended to use more innovative forms, associated with English and technology, and [to] disassociate themselves with the feminine 'palatalizing' tendency.

In the Arab world, much closer to the current studied sample, some literature is also found related to Gender and CMD found that old theories on men dominance in mixed-sex conversations are not applicable in CMD, especially in online programs related to education. Khalsi (2013) states that in conceiving educational online programs and interfaces, educators or designers should not consider gender as an issue in CMC and should, may be, focus on other variables such as age, social status, origin, familiarity with CMC, etc.

Others question if there is a digital divide among Arab Americans, in order to examine their online behaviors to see if they employ the internet to enhance their life position. They recommend for this study to include demographic factors, such

as age, education, **gender**, and socioeconomic level, in studying whether there is a digital divide among Arab Americans.(Muhtaseb & Frey, 2008)

On the anonymity and CMC, for many Arab women, their anonymity is an important aspect of their experiences in social networking. For many it is the safest way in which they can vent frustrations, and share opinions openly and honestly without any backlash from their families and communities. It would be irresponsible for a researcher to then draw attention to individual blogs, or other social networking pages, whereby women have attempted to stay anonymous (Abdullatif, 2013)

In a study about Saudi Arabians, it has been found that minimal cross-gender communication is apparent in discussion forums but despite comparatively little uptake of direct cross-gender communication, the online forums extend the horizons of mixed communication among Saudi Arabians for both males and females(Madini & de Nooy, 2016).

As for (im)politeness, gender and CMD, both politeness and impoliteness exist in the Arabic discourse of social media network website, Facebook. Hence, it has been found that females tend to use politeness more than males do; however, males use impoliteness more than females do. This finding supports the view of women's language by many scholars such as Coast (1996), Tannen's (1991), and Holmes 1995)."(Al-Shlool, 2016).

Although the current study is not about impoliteness, but the link between the domains and gender for Al-Schlooi is of close interest. She has found that in the domains 'sport' and 'politics' women's voice is discreet but when it comes to 'music' and 'sport', men's dominance is present. Notice that this study has been mainly done in Saudi Arabia.

**As a prelude to the next research question, I have found that in Algeria males have the highest opinions in the domains of 'Sport' and 'Religion'**

**(whatever the language used, French or Algerian Arabic), while women's voice is on 'music' and 'education'.**

Another interesting finding is that **when Algerian people connect on facebook, language is a factor of change depending on the domains. This means that their attitude or behaviour is not the same when they talk about religion in French and religion in Arabic for example.**

The very significant effect in this study is gender on language. The results show that in sport and religion, whatever the language used (Fr or AA), males and females have significantly different opinions (from strongly disagree to strongly agree on a Likert scale).

In addition, the score (%) of males having the same opinion is statistically higher than the one of females. **From this, we conclude that there is a big influence of gender on the domains of sport and religion in Algeria.**

How is this male dominance in CMC context explained?

In the nineties, it was explained by a digital divide like in "*men control public discourse and women communicate more often in private settings*" (Coates, 1993).

While ten years later, conclusions draw that "*public CMC is predominantly a male preserve*"(Herring, 2000).

So, is the internet dominated by males rather than females, the answer is not yet clear. But many studies attest of the digital divide and digital difference for males and females on the internet (the case of the current research too).

Additionally, I have proved that the social factor gender is a significant agent of change in language use (Fr and AA), domains and type of Social Support in Algeria.

This difference is also explained by the role of women in the studied society. In the current one, I explain this difference by male patriarchy in the Algerian society which is reflected on CMC as well.

Finally, as for the implication of Gender in CMC for future research, throughout this thesis, findings attest that some domains are more dominated by men like sport and religion while others are by women like music and education. From one side, it shows that there is a gender gap associated with a digital divide since a 'common' gender presence is not found in 'common' domains and topics, but at the same time this difference is not an issue. It is just the normal way things go, in all the societies of the world, as a universal theme, since men have preference for some domains and women for others. This is attested by many researchers in different parts of the globe, even in the notorious book of '*Men come from Mars and Women from Venus*', the author explains that both genders have their peculiarities that should be taken into account to enhance cross-gender communication.(Gray, 1992)[i]

In addition, this gender difference in the domains and SS categories show an aspect of identity and maybe power as well linked to both sexes in the Algerian society.

Finally, the fact that both men and women change their attitude and behaviour whether they talk in French or Arabic shows that the language question in Algeria is complex and controversial, with no difference between the real life and in computer mediated discourse,  and is linked with subconscious and psychological concerns in addition to personal ones.

Furthermore, literature on CMD goes with the current finding (Figallo, 1998) (Wellman & Gulia, 1999)

On further investigation on the gender roles in CMD, research has already begun to explain the 'how' and 'why' like gender asymmetry. (Herring, 1996)

- **A Point on statistical analysis**

In this investigation, parameters were compared two by two using the Mann-Whitney analysis, but it could be interesting to make the same investigation with Anova two ways revealing the correlation between Gender x SS category x Domain x Langauge use.

As for the SS categories, a Likert 5 points scale was used and there is a raging debate whether ANOVA would be used for validity or not. Despite being made up of numbers, Likert represents sets of ordered categories which may range from a scale of 3 to 11 points (1=strongly disagree, 3=neutral, 5= strongly agree)

One camp maintains that as ordered categories, the intervals between the scale values are not equal. Any mean, correlation, or other numerical operation applied to them is invalid. Only nonparametic statistics should be used on Likert scale data.Jamieson, 2004). The other camp maintains that while technically the Likert scale item is ordered, using it in parametric tests *is* valid in some situations. For example, Lubke & Muthen (2004) found that it is possible to find true parameter values in factor analysis with Likert scale data, if assumptions about skewness, number of categories, etc., were met. Likewise, Glass et al. (1972) found that F tests in ANOVA could return accurate p-values on Likert items under certain conditions.(Norman, 2010).

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*APPENDICES*

# APPENDICES

**Appendix A: Languistic Regulations**

Appendix A provides a non-exhaustive list of language laws in Algeria. They have been duplicated from the translation of Djennane Taoufik's thesis (Djennane, 2016) as adapted from http://www.axl.cefan.ulaval.ca/afrique/algerie-3Politique_ling.htm

## 1. The Status of Languages in the different constitutions of Algeria

✓ Constitution of 1963

**Art. 5** : Arabic is the national and official language of the state.

**Art. 76 :** The effective completion of Arabization must take place as soon as possible on

the territory of the Republic. However, notwithstanding the provisions of this act, the

French language may be used **temporarily** alongside the Arabiclanguage.

✓ Constitution of 1976

**Art. 3** : Arabic is the national and official language. The State works to generalize
the use of the national language to the official plan.

✓ Constitution of 1989

**Art. 3** : Arabic is the national and official language.
✓ Constitution of 1996

**Art. 3** (1996)Arabic is the national and official language.

**Art. 3 bis** (adopted April 10, 2002)
Tamazight is also a national language.
The State works on its promotion and development, with all its linguisticvarieties that
are in spoken throughout the national territory.

**Art. 178** (adopted November 15, 2008)
Any constitutional revision can not infringe on:
3. Islam, as the religion of the state;
4. Arabic, as national and official language;

✓ Constitution of 2016

**Art. 3**

Arabic is the national and official language.
Tamazight is equally a national and official language.

## 2. Some Texts Imposing Arabic in the Public Domian

✓**Decree No. 74-70 of 3 April 1974: Arabisation of commercial advertising**

**Art. 1**: Commercial advertising produced and broadcast on the national territory
must be expressed **in Arabic.**
The use of **a foreign language** for the same ends is optional. In this case, the
advertisement must be designed as a complementary reproduction translated or
transposed.

✓**Decree No. 81-36 of March 14, 1981 on the Arabization of the linguistic landscape**

**Art. 1**: Signs, panels and, in general, any inscription painted, engraved or luminous
indicating an institution, a company, an organization or any other body mentioning
the activity that it carries, are in the **national language** ...

✓**Law No. 86-10 of August 19, 1986 establishing the Algerian Academy of the Arabic Language**

**Art.1:** This law concerns the creation of the Algerian Academy of the Arabic
language and the definition of its missions and the general rules of its organization,
operation and financing.

✓**Law No. 05-91 of Jumada Ethania 30, 1411, corresponding to January 16, 1991, concerning the generalization of the use of the Arabic language**

**Art.4:** Public administrations, institutions, companies and associations, whatever
their nature is, are required to use solely the Arabic language in all their activities,
such as communication, administration, financial, technical and artisticmanagement.

**Art.5:** All official documents, reports and minutes of public administrations,
institutions, companies and associations are written in Arabic language.
The use of any foreign language in the deliberations and discussions of official

meetings is forbidden.

**Art.15:**Teaching, education and training in all sectors, in all levels and in all specialties are delivered **in Arabic**, taking account of foreign languages teaching methodologies.

**Art. 29:** Any official document in a language other than Arabic is null and void. The person/institution who drafted or signed the document takes full responsibility of the effects that result.

✓**Legislative Decree 92-02 of July 4, 1992 on the implementation of Law No. 91-OS of January 16, 1991**
**Art.1:** The maximum period set by Article 36 of Law 91-05 of January 16, 1991 onthe generalization of the use of the Arabic language **is extended until meeting therequired conditions.**

✓**Ordinance No. 96-30 of Sha'ban 10, 1417 corresponding to December 21, 1996 amending and supplementing Law No. 91-05 of Jumada Ethania 30, 1411 corresponding to January 16, 1991**

**Article 7 :**

**Art. 36** amending and completing the Law n° 91-05 of January 16, 1991 :
"Art. 36 "The provisions of this Ordinance shall apply since its issuance.
The operation of the generalization of the use of Arabic will be fully completed within a period not exceeding July 5, 1998.
Nevertheless, the total and definitive teaching in Arabic in all institutions of higher education and higher institutes will be provided within a period not exceeding July 5, 2000, subject to the provisions of Article 23 above. "

**3. Some Laws Concerning Tamazight**

✓**Presidential Decree No. 95-147 of Dhu Al Hijjah 27, 1415 correspondingto May 27, 1995 establishing the *Haut Commissariat à l 'Amazighité*(HCA)**

**Art.1 :**A structure called *Haut Commissariat à l 'Amazighité* (High Commission for Amazighity) is created to rehabilitate Amazighity and to promote the Tamazight

language...

✓**Executive Decree No. 03-470 of Shawwal 8, 1424 corresponding toDecember 2, 2003.**

**Art. 1:** This Decree concerns the establishment, organization and functioning of an educational and linguistic national centre for teaching Tamazight.

✓**Ordinance No. 03-09 of Jumada Ethania 14, 1424 corresponding toAugust 13,2003 amending and supplementing Ordinance No. 76-35 ofApril 16, 1976 concerning the organization of education and training.**

**Art.4 :**

"Art. 8 bis - [...] The State works on promoting and developing the teaching of Tamazight in all its linguistic varieties that are spoken throughout the country, mobilizing organizational and educational resources that are required to meet the demand of this teaching countrywide.

**Appendix B:**                        **Youtube users' Questionnaire**

Répondez aux questions que vous souhaitez pré-remplir, puis cliquez sur Envoyer.

# Popular topics in youtube

Among the following topics in youtube videos, choose the ones you are accustomed to watch

* Obligatoire

### Funny shows/Entertainment *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

### Cooking Recipes *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

### movies *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## Music *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## health *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## science *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## Politics *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## fashion *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## Religion *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## Education/culture *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## Sport *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

## News reports *

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| very frequently | ○ | ○ | ○ | ○ | ○ | ○ | ○ | never |

ENVOYER

**Appendix C :    Facebook Online Social Support Questionnaire**

**(Arabic version)**

## الدعم الاجتماعي عبر الإنترنت

شكرا للرد على أسئلة هذا الاستبيان. لكن في علمك أنه لا توجد إجابات صحيحة أو خاطئة.

1.  هل أنت؟
    *Marquez un seul ovale.*

    ○ رجل
    ○ امرأة

2.  كم عمرك؟
    *Marquez un seul ovale.*

    ○ تحت 18
    ○ 18-24
    ○ 25-35
    ○ 36 وأكثر

3.  إذا كنتُ بحاجة إلى 1000دج كقرض طارئ، أنا متأكد (ة) أن أجد شخص في هذه المجموعة لمساعدتي
    *Marquez un seul ovale*

    |  | 5 | 4 | 3 | 2 | 1 |  |
    |---|---|---|---|---|---|---|
    | موافق بشدة | ○ | ○ | ○ | ○ | ○ | لا أوافق أبدا |

4.  في حالة مرض(حالة طوارئ) ، أنا واثق(ت) من العثور على شخص في هذه المجموعة لأخذني إلى المستشفى.
    *Marquez un seul ovale.*

    |  | 5 | 4 | 3 | 2 | 1 |  |
    |---|---|---|---|---|---|---|
    | موافق بشدة | ○ | ○ | ○ | ○ | ○ | لا أوافق أبدا |

5.  هناك عدة أشخاص في هذه المجموعة أستمتع بقضاء الوقت معهم.
    *Marquez un seul ovale.*

    |  | 5 | 4 | 3 | 2 | 1 |  |
    |---|---|---|---|---|---|---|
    | موافق بشدة | ○ | ○ | ○ | ○ | ○ | لا أوافق أبدا |

6.  إذا كنت أرغب في أن أتغذى مع شخص ما خارج المنزل ، يمكنني بسهولة العثور على شخص من هذه المجموعة .
    *Marquez un seul ovale.*

    |  | 5 | 4 | 3 | 2 | 1 |  |
    |---|---|---|---|---|---|---|
    | موافق بشدة | ○ | ○ | ○ | ○ | ○ | لا أوافق أبدا |

7. أعتقد أن الكثير من الناس في هذه المجموعة لديهم نسبة تقييم عالية تُجاهي

*Marquez un seul ovale.*

|  | 5 | 4 | 3 | 2 | 1 |  |
|---|---|---|---|---|---|---|
| موافق بشدة | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ | لا أوافق أبدا |

8. أعتقد أني جيد مثل معظم الناس الآخرين في هذه المجموعة

*Marquez un seul ovale.*

|  | 5 | 4 | 3 | 2 | 1 |  |
|---|---|---|---|---|---|---|
| موافق بشدة | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ | لا أوافق أبدا |

9. أشعر أنه لا يوجد أحد من هذه المجموعة يمكنه أن يشاركني في أموري الشخصية و مخاوفي الخاصة

*Marquez un seul ovale.*

|  | 5 | 4 | 3 | 2 | 1 |  |
|---|---|---|---|---|---|---|
| موافق بشدة | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ | لا أوافق أبدا |

10. إذا كنت بحاجة إلى رأي أم نصيحة بشأن مشكلة شخصية / خاصة، أنا واثق(ت) من العثور على شخص في هذه المجموعة لمساعدتي

*Marquez un seul ovale.*

|  | 5 | 4 | 3 | 2 | 1 |  |
|---|---|---|---|---|---|---|
| موافق بشدة | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ | لا أوافق أبدا |

11. شكرا للإهتمام و المشاركة.

_____

_____

_____

_____

# Facebook Online Social Support Questionnaire  (French  version)

## sondage

Cher participant. Merci de répondre aux questions de ce sondage. Rappelez-vous qu'il n'y a pas de bonne ou mauvaise réponse et que toutes les réponses sont anonymes.

## Titre sans titre

**1. Etes vous?**
*Marquez un seul ovale.*

◯ homme
◯ femme

**2. Quel âge avez-vous?**
*Marquez un seul ovale.*

◯ Moins de 35 ans
◯ 36 et plus

**3. Si j'aurai besoin d'un prêt d'urgence de 1000DZ, je suis certain(e) qu'il y aurait quelqu'un dans ce groupe pour m'aider**
*Marquez un seul ovale.*

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

**4. Si je suis malade, je suis certain(e) de trouver quelqu'un dans ce groupe pour m'emmener à l'hôpital pour une urgence**
*Marquez un seul ovale.*

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

**5. Il y a plusieurs personnes dans ce groupe avec lesquelles j'aime bien passer du temps.**
*Marquez un seul ovale.*

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

6. **Si je voulais déjeuner avec quelqu'un, je pourrais facilement trouver une personne de ce groupe pour se joindre à moi.**
*Marquez un seul ovale.*

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

7. **Je pense que plusieurs personnes dans ce groupe pensent du bien de moi.**
*Marquez un seul ovale.*

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

8. **Je suis aussi bon que la plupart des autres personnes dans ce groupe**
*Marquez un seul ovale.*

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

9. **Je pense qu'il n'y a personne avec qui je peux partager mes soucis et mes peurs les plus privés dans ce groupe en ligne**
*Marquez un seul ovale.*

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

10. **Si j'ai besoin de conseils sur un problème personnel/privé, je suis sûr de trouver quelqu'un dans ce groupe pour m'aider**
*Marquez un seul ovale.*

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| Pas du tout d'accord | ◯ | ◯ | ◯ | ◯ | ◯ | Tout à fait d'accord |

11. **Merci d'avoir pris le temps de remplir ce sondage.**

_____

_____

_____

_____

**Facebook Online Social Support Questionnaire** **(English version)**

# Online social support

Dear participant. Thank you for answering the questions of this survey. Remember there is no good or bad answer and all the responses are anonymous.

## What is your gender? *

☐ male

☐ female

## What is your age? *

☐ less than 18

☐ 18 to 24

☐ 25 to 35

☐ 36 and above

## if I needed an emergency loan of 1000DZ there will be someone in this group I could get it from. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

## If I were sick and had an emergency, I am confident about finding someone in this group to take me to hospital. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

## There are several different people in this group I enjoy spending time with. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

If I wanted to have lunch with someone, I could easily find a person from this group to join me. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

I think that most people in this group think highly of me. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

I am as good as most other people are in this group. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

I feel that there is no one I can share my most private worries and fears with in this online group. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

When I need suggestions/advice on how to deal with a personal problem, I am sure I could find someone in this group I can turn to. *

|  | 1 | 2 | 3 | 4 | 5 |  |
|---|---|---|---|---|---|---|
| strongly disagree | ○ | ○ | ○ | ○ | ○ | strongly agree |

**Thank you!!!**

**Appendix D :**                     **Results**

## • **Youtube users' questionnaire**

| | /3000 persons | very frequently | frequently | occasionally | rarely | never |
|---|---|---|---|---|---|---|
| music | | 2409 | 492 | 58 | 29 | 12 |
| funny shows/entertainment | | 2346 | 599 | 27 | 19 | 9 |
| sport | | 2127 | 716 | 94 | 26 | 37 |
| news reports | | 2078 | 603 | 122 | 159 | 38 |
| education/culture | | 2004 | 875 | 49 | 61 | 11 |
| politics | | 1805 | 972 | 98 | 33 | 92 |
| religion | | 1613 | 1103 | 154 | 92 | 38 |
| cooking recipes | | 1267 | 905 | 604 | 104 | 120 |
| fashion | | 92 | 178 | 566 | 963 | 1201 |
| science | | 919 | 957 | 577 | 510 | 37 |
| health | | 900 | 1045 | 821 | 162 | 72 |
| movies | | 940 | 1009 | 408 | 502 | 141 |

## • Facebook Online Social Support Questionnaire     for facebook group in French

**Funny shows/entertainment**

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 302 | 447 | 302 | 401 |
| Moyenne | 3.02 | 4.47 | 3.02 | 4.01 |
| moy hommes | 3 | 4.46 | 3.02 | 4 |
| moy femmes | 3.04 | 4.48 | 3.02 | 4.02 |

**Music**

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 202 | 401 | 431 | 403 |
| moyenne | 2.02 | 4.01 | 4.31 | 4.03 |
| HOMME | 2.12 | 4.14 | 4.46 | 3.52 |
| FEMME | 1.92 | 3.88 | 4.16 | 4.54 |

**Sport**

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 201 | 465 | 309 | 219 |
| moyenne | 4.0 | 4.7 | 3.1 | 2.2 |
| moy HOMME | 4.02 | 4.66 | 3.60 | 2.20 |
| moy FEMME | 4.04 | 4.64 | 2.58 | 2.18 |

**News**

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 133 | 352 | 253 | 308 |
| moyenne | 1.33 | 3.52 | 2.53 | 3.08 |
| moy hommes | 1.36 | 3.58 | 2.48 | 3.1 |
| moy femmes | 1.33 | 3.56 | 2.49 | 3.09 |

**Education**

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| SOMME | 168 | 451 | 470 | 421 |
| moyenne | 1.68 | 4.51 | 4.7 | 4.21 |
| moy hommes | 1.68 | 4.5 | 4.6 | 4.9 |
| moy femmes | 1.68 | 4.52 | 4.8 | 3.52 |

## Politics

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 302 | 306 | 303 | 302 |
| Moyenne | 3.02 | 3.06 | 3.03 | 3.02 |
| moy hommes | 3.04 | 3.08 | 3.06 | 3.02 |
| moy femmes | 3 | 3.04 | 3 | 3.02 |

## Religion

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 433 | 401 | 449 | 480 |
| Moyenne | 4.33 | 4.01 | 4.49 | 4.8 |
| moy hommes | 4.32 | 4 | 4.5 | 4.8 |
| moy femmes | 4.34 | 4.02 | 4.48 | 4.8 |

- **Facebook Online Social Support Questionnaire  facebook group in Algerian Arabic**

### Funny shows/entertainment

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 302 | 451 | 401 | 401 |
| Moyenne | 3.02 | 4.51 | 4.01 | 4.01 |
| moy hommes | 3 | 4.5 | 4.02 | 4 |
| moy femmes | 3.04 | 4.52 | 4 | 4.02 |

### Music

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 210 | 401 | 401 | 351 |
| Moyenne | 2.1 | 4.01 | 4.01 | 3.51 |
| moy hommes | 2.04 | 4.02 | 4 | 3.42 |
| moy femmes | 2.16 | 4 | 4.02 | 3.6 |

### Sport

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 351 | 473 | 479 | 473 |
| moyenne | 3.51 | 4.73 | 4.79 | 4.73 |
| moy HOMME | 3.90 | 4.80 | 4.88 | 4.84 |
| moy FEMME | 3.12 | 4.66 | 4.70 | 4.62 |

### News

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 110 | 155 | 301 | 250 |
| Moyenne | 1.1 | 1.55 | 3.01 | 2.5 |
| moy hommes | 1.12 | 1.46 | 3.02 | 2.58 |
| moy femmes | 1.08 | 1.64 | 3 | 2.42 |

### Education

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 152 | 300 | 232 | 239 |
| moyenne | 1.52 | 3.00 | 2.32 | 2.39 |
| moy HOMME | 1.70 | 3.00 | 2.18 | 2.30 |
| moy FEMME | 1.34 | 3.00 | 2.46 | 2.48 |

### Politics

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| SOMME | 408 | 400 | 324 | 300 |
| Moyenne | 4.08 | 4 | 3.24 | 3 |
| moy hommes | 4.04 | 4 | 3.26 | 3.02 |
| moy femmes | 4.12 | 4 | 3.22 | 2.98 |

**Religion**

| NUMERO | QUEST A | QUEST B | QUEST C | QUEST D |
|---|---|---|---|---|
| SOMME | 251 | 241 | 304 | 342 |
| moyenne | 2.51 | 2.41 | 3.04 | 3.42 |
| moy HOMME | 3.04 | 2.76 | 3.58 | 3.82 |
| moy FEMME | 1.98 | 2.06 | 2.50 | 3.02 |

- **Mann-Whitney Test for Domain x Gender x Language**

| | Gender | N | Rang moyen : | Somme des rangs |
|---|---|---|---|---|
| Q_A_FUNNY_FR | Males | 50 | 49.94 | 2497.00 |
| | Females | 50 | 51.06 | 2553.00 |
| | Total | 100 | | |
| Q_B_FUNNY_FR | Males | 50 | 50.25 | 2512.50 |
| | Females | 50 | 50.75 | 2537.50 |
| | Total | 100 | | |
| Q_C_FUNNY_FR | Males | 50 | 50.55 | 2527.50 |
| | Females | 50 | 50.45 | 2522.50 |
| | Total | 100 | | |
| Q_D_FUNNY_FR | Males | 50 | 50.56 | 2528.00 |
| | Females | 50 | 50.44 | 2522.00 |
| | Total | 100 | | |
| Q_A_MUSIC_FR | Males | 50 | 52.72 | 2636.00 |
| | Females | 50 | 48.28 | 2414.00 |
| | Total | 100 | | |
| Q_B_MUSIC_FR | Males | 50 | 54.12 | 2706.00 |
| | Females | 50 | 46.88 | 2344.00 |
| | Total | 100 | | |
| Q_C_MUSIC_FR | Males | 50 | 53.61 | 2680.50 |
| | Females | 50 | 47.39 | 2369.50 |
| | Total | 100 | | |
| Q_D_MUSIC_FR | Males | 50 | 35.25 | 1762.50 |
| | Females | 50 | 65.75 | 3287.50 |
| | Total | 100 | | |
| Q_A_SPORT_FR | Males | 50 | 48.21 | 2410.50 |
| | Females | 50 | 52.79 | 2639.50 |
| | Total | 100 | | |
| Q_B_SPORT_FR | Males | 50 | 51.00 | 2550.00 |
| | Females | 50 | 50.00 | 2500.00 |
| | Total | 100 | | |
| Q_C_SPORT_FR | Males | 50 | 60.38 | 3019.00 |
| | Females | 50 | 40.62 | 2031.00 |
| | Total | 100 | | |
| Q_D_SPORT_FR | Males | 50 | 51.89 | 2594.50 |
| | Females | 50 | 49.11 | 2455.50 |
| | Total | 100 | | |
| Q_A_NEWS_FR | Males | 50 | 51.94 | 2597.00 |
| | Females | 50 | 49.06 | 2453.00 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_B_NEWS_FR | Males | 50 | 51.70 | 2585.00 |
| | Females | 50 | 49.30 | 2465.00 |
| | Total | 100 | | |
| Q_C_NEWS_FR | Males | 50 | 50.43 | 2521.50 |
| | Females | 50 | 50.57 | 2528.50 |
| | Total | 100 | | |
| Q_D_NEWS_FR | Males | 50 | 50.96 | 2548.00 |
| | Females | 50 | 50.04 | 2502.00 |
| | Total | 100 | | |
| Q_A_EUCATION_FR | Males | 50 | 49.70 | 2485.00 |
| | Females | 50 | 51.30 | 2565.00 |
| | Total | 100 | | |
| Q_B_EUCATION_FR | Males | 50 | 50.02 | 2501.00 |
| | Females | 50 | 50.98 | 2549.00 |
| | Total | 100 | | |
| Q_C_EUCATION_FR | Males | 50 | 45.60 | 2280.00 |
| | Females | 50 | 55.40 | 2770.00 |
| | Total | 100 | | |
| Q_D_EUCATION_FR | Males | 50 | 55.25 | 2762.50 |
| | Females | 50 | 45.75 | 2287.50 |
| | Total | 100 | | |
| Q_A_POLITICS_FR | Males | 50 | 50.51 | 2525.50 |
| | Females | 50 | 50.49 | 2524.50 |
| | Total | 100 | | |
| Q_B_POLITICS_FR | Males | 50 | 49.90 | 2495.00 |
| | Females | 50 | 51.10 | 2555.00 |
| | Total | 100 | | |
| Q_C_POLITICS_FR | Males | 50 | 51.08 | 2554.00 |
| | Females | 50 | 49.92 | 2496.00 |
| | Total | 100 | | |
| Q_D_POLITICS_FR | Males | 50 | 50.27 | 2513.50 |
| | Females | 50 | 50.73 | 2536.50 |
| | Total | 100 | | |
| Q_A_RELIGION_FR | Males | 50 | 49.73 | 2486.50 |
| | Females | 50 | 51.27 | 2563.50 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_B_RELIGION_FR | Males | 50 | 49.93 | 2496.50 |
| | Females | 50 | 51.07 | 2553.50 |
| | Total | 100 | | |
| Q_C_RELIGION_FR | Males | 50 | 50.25 | 2512.50 |
| | Females | 50 | 50.75 | 2537.50 |
| | Total | 100 | | |
| Q_D_RELIGION_FR | Males | 50 | 50.50 | 2525.00 |
| | Females | 50 | 50.50 | 2525.00 |
| | Total | 100 | | |
| Q_A_FUNNY_AR | Males | 50 | 49.64 | 2482.00 |
| | Females | 50 | 51.36 | 2568.00 |
| | Total | 100 | | |
| Q_B_FUNNY_AR | Males | 50 | 50.30 | 2515.00 |
| | Females | 50 | 50.70 | 2535.00 |
| | Total | 100 | | |
| Q_C_FUNNY_AR | Males | 50 | 50.75 | 2537.50 |
| | Females | 50 | 50.25 | 2512.50 |
| | Total | 100 | | |
| Q_D_FUNNY_AR | Males | 50 | 50.53 | 2526.50 |
| | Females | 50 | 50.47 | 2523.50 |
| | Total | 100 | | |
| Q_A_MUSIC_AR | Males | 50 | 48.14 | 2407.00 |
| | Females | 50 | 52.86 | 2643.00 |
| | Total | 100 | | |
| Q_B_MUSIC_AR | Males | 50 | 50.32 | 2516.00 |
| | Females | 50 | 50.68 | 2534.00 |
| | Total | 100 | | |
| Q_C_MUSIC_AR | Males | 50 | 50.16 | 2508.00 |
| | Females | 50 | 50.84 | 2542.00 |
| | Total | 100 | | |
| Q_D_MUSIC_AR | Males | 50 | 47.77 | 2388.50 |
| | Females | 50 | 53.23 | 2661.50 |
| | Total | 100 | | |
| Q_A_SPORT_AR | Males | 50 | 61.19 | 3059.50 |
| | Females | 50 | 39.81 | 1990.50 |
| | Total | 100 | | |

| | | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Q_B_SPORT_AR | Males | 50 | 53.13 | 2656.50 |
| | Females | 50 | 47.87 | 2393.50 |
| | Total | 100 | | |
| Q_C_SPORT_AR | Males | 50 | 54.56 | 2728.00 |
| | Females | 50 | 46.44 | 2322.00 |
| | Total | 100 | | |
| Q_D_SPORT_AR | Males | 50 | 55.58 | 2779.00 |
| | Females | 50 | 45.42 | 2271.00 |
| | Total | 100 | | |
| Q_A_NEWS_AR | Males | 50 | 51.50 | 2575.00 |
| | Females | 50 | 49.50 | 2475.00 |
| | Total | 100 | | |
| Q_B_NEWS_AR | Males | 50 | 46.90 | 2345.00 |
| | Females | 50 | 54.10 | 2705.00 |
| | Total | 100 | | |
| Q_C_NEWS_AR | Males | 50 | 50.59 | 2529.50 |
| | Females | 50 | 50.41 | 2520.50 |
| | Total | 100 | | |
| Q_D_NEWS_AR | Males | 50 | 52.81 | 2640.50 |
| | Females | 50 | 48.19 | 2409.50 |
| | Total | 100 | | |
| Q_A_EUCATION_AR | Males | 50 | 52.72 | 2636.00 |
| | Females | 50 | 48.28 | 2414.00 |
| | Total | 100 | | |
| Q_B_EUCATION_AR | Males | 50 | 49.46 | 2473.00 |
| | Females | 50 | 51.54 | 2577.00 |
| | Total | 100 | | |
| Q_C_EUCATION_AR | Males | 50 | 48.83 | 2441.50 |
| | Females | 50 | 52.17 | 2608.50 |
| | Total | 100 | | |
| Q_D_EUCATION_AR | Males | 50 | 50.94 | 2547.00 |
| | Females | 50 | 50.06 | 2503.00 |
| | Total | 100 | | |
| Q_A_POLITICS_AR | Males | 50 | 48.86 | 2443.00 |
| | Females | 50 | 52.14 | 2607.00 |
| | Total | 100 | | |
| Q_B_POLITICS_AR | Males | 50 | 50.32 | 2516.00 |
| | Females | 50 | 50.68 | 2534.00 |
| | Total | 100 | | |

| | | | | |
|---|---|---|---|---|
| Q_C_POLITICS_AR | Males | 50 | 50.53 | 2526.50 |
| | Females | 50 | 50.47 | 2523.50 |
| | Total | 100 | | |
| Q_D_POLITICS_AR | Males | 50 | 50.64 | 2532.00 |
| | Females | 50 | 50.36 | 2518.00 |
| | Total | 100 | | |
| Q_A_RELIGION_AR | Males | 50 | 63.52 | 3176.00 |
| | Females | 50 | 37.48 | 1874.00 |
| | Total | 100 | | |
| Q_B_RELIGION_AR | Males | 50 | 57.77 | 2888.50 |
| | Females | 50 | 43.23 | 2161.50 |
| | Total | 100 | | |
| Q_C_RELIGION_AR | Males | 50 | 62.27 | 3113.50 |
| | Females | 50 | 38.73 | 1936.50 |
| | Total | 100 | | |
| Q_D_RELIGION_AR | Males | 50 | 57.76 | 2888.00 |
| | Females | 50 | 43.24 | 2162.00 |
| | Total | 100 | | |

- **Mann-Whitney Test for Domain x Gender**

| | Gender | N | Rang moyen : | Somme des rangs |
|---|---|---|---|---|
| m_FUNNY | Males | 50 | 49.61 | 2480.50 |
| | Females | 50 | 51.39 | 2569.50 |
| | Total | 100 | | |
| m_MUSIC | Males | 50 | 48.04 | 2402.00 |
| | Females | 50 | 52.96 | 2648.00 |
| | Total | 100 | | |
| m_SPORT | Males | 50 | 62.48 | 3124.00 |
| | Females | 50 | 38.52 | 1926.00 |
| | Total | 100 | | |
| m_NEWS | Males | 50 | 50.84 | 2542.00 |
| | Females | 50 | 50.16 | 2508.00 |
| | Total | 100 | | |
| m_EDUCATION | Males | 50 | 51.44 | 2572.00 |
| | Females | 50 | 49.56 | 2478.00 |
| | Total | 100 | | |
| m_POLITICS | Males | 50 | 50.44 | 2522.00 |
| | Females | 50 | 50.56 | 2528.00 |
| | Total | 100 | | |
| m_RELIGION | Males | 50 | 65.70 | 3285.00 |
| | Females | 50 | 35.30 | 1765.00 |
| | Total | 100 | | |

*Computer-Mediated Discourse inSocial Media: A Study of Social Support among Algerian Internet Users*

الملخص:

الغرض من هذه    الأطروحة هو دراسة الكلام التلقائي للجزائريين عبر الإنترنت ، مع       إيلاء اهتمام خاص للدعم الاجتماعي. وبما أن  التعرف عن الآخر يستند إلى الكشف عن   الهوية، فإن الدعم الاجتماعي لن يعتمد على الخصائص التقليدية؛ البدن أو الانتماء الاجتماعي للمحاورين. و بناء على ذلك، يهدف هذا البحث إلى كشف العلاقة بين الجنسين في استيعاب الدعم الاجتماعي واستخدام اللغة في الجزائر. وهو يعتمد على الاختيار غير الموقع الاجتماعي الفيس بوك لتصنيفات الدعم الاجتماعي حسب الجنس (ذكر / أنثى) ، وموضوع النقاش واللغة المستخدمة (اللهجة العربية الجزائرية / الفرنسية). هذا التحقيق سيساعد أيضًا في دراسة سلوك الجزائريين من خلال الشبكات الاجتماعية.

**كلمات مفتاحية:**
الاتصال بواسطة الكمبيوتر ـالدعم الاجتماعي ـالجنس ـ اللسانيات الاجتماعية ـ الفيس بوك

## Summary

The present thesis aims to investigate spontaneous speech acts of Algerians when communicating through the internet, with a particular attention to online social support. Given that partners' perception is based on anonymity and distance, social support will not rely on the classical features; physical characteristics or social belonging of the partners. In this sense, it explores the relationship between gender, social support and language use in Algeria. It revolves around the unexpected choice of facebook users of the social support categories depending on the gender (male/female), the topic of discussion and the language used (Algerian Arabic/ French). This investigation aims also to shed the light on the behaviour of Algerians in the social networks.

## Key words:
Computer Mediated Communication- Gender- Social support- -sociolinguistics-Facebook

## Résumé

La présente thèse a pour but d'étudier les actes de langage spontanés des Algériens lorsqu'ils communiquent par Internet, en accordant une attention particulière au support social en ligne. Étant donné que la perception des partenaires repose sur l'anonymat et la distance, le support social ne dépendra pas des caractéristiques classiques ; le physique ou l'appartenance sociale des interlocuteurs. En ce sens, cette recherche vise à explorer la relation entre le genre, le support social et l'usage de la langue en Algérie. Elle s'articule autour du choix inattendu des utilisateurs facebook des catégories de support social en fonction du sexe (homme / femme), du sujet de discussion et de la langue utilisée (arabe algérien/ français). Cette investigation contribuera aussi à étudier le comportement des Algériens à travers les réseaux sociaux.

## Mots clés:

Communication Médiatisée par Ordinateur -Support social- Genre- Sociolinguistique-Facebook.