

## Papers in English

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- Ethical Leadership: Implications for Enhancing Quality in Higher Education-  
**Abderrahim Amghar**
- Multilingual Education in Morocco and Worldwide: Critical Study of Language-in-education Policies.  
**Salah Ben Hammou & Adbdelaziz Kesbi**
- Students' Perceptions of the Use of French as the Medium of Instruction of Science Subjects in Secondary Education.  
**Mohammed Mettar & Dr.Latifa Belfakir**
- The Challenges Facing the Teaching of English in Moroccan Universities: Flaws in Planning, Failures in Implementation.  
**Asmae Boukanouf, Nada Biddou, Abdellatif Al Ghadi**
- STEAM Learners' Attitudes towards Literacy, Translingualism and ESP in the Moroccan Higher Education.  
**Youssef Naciri & Taoufik ElAjraoui**
- ESL Teachers' Self-management and National Language Policy: Self-directed learning experience during COVID 19 in Morocco.  
**Aziz Moummou, Said Fathi**
- Eclecticism in Moroccan EFL Classrooms: Random or Guided? Public High Schools in Meknes as a Case Study.  
**Mohamed Aymane Sbair & Maha El Biadi**
- A Closer Look at Moroccan EFL learners' use of language learning Strategies from a Qualitative Perspective.  
**Zahra EL AOURI**

## **Ethical Leadership: Implications for Enhancing Quality in Higher Education**

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**Abstract:** In a globalized, competitive world dependent on human ingenuity, the need for quality education has occupied the center stage of attention for public officials, professionals, and communities at large. Yet, the focus of stakeholders has largely been on the material rather than ethical factors in the change process. Departing from this conventional approach, this paper seeks to highlight the importance of ethics in the success of organizations, particularly the ways in which instructors' ethical leadership can stimulate change and enhance quality across universities in Morocco. The paper draws on the theoretical and empirical literature to address a number of questions related to the nature of ethical leadership, its processes and its outcomes. The situational and individual characteristics affecting the perceptions and development of ethical leadership are discussed with an emphasis on the implications for language teaching and learning. What ethics are important and how ethical leadership affects attitudes and performance are also explored in this paper. By underlining the role of ethics rather than simply technical competence in driving success and teaching/learning quality, this paper provides insights and perspectives often overlooked but critical to the understanding and achievement of change.

## **Introduction**

In a competitive world increasingly dependent on innovation and knowledge creation, Moroccan universities are facing immense pressure for delivering better outcomes. To address the challenges, the Moroccan government has undertaken several initiatives to increase the material support for universities, whereas the moral aspects in the change process have received little attention. Given that change is essentially driven by the values and ethics prevailing across organizations, it is time for Moroccan universities to shift the focus towards the ethical domain to turn into centers of innovation driving social and economic development in the country. Language teaching has an important role to play in this process, but it can only do so if its focus is redirected towards the ethical rather than merely the technical sphere of change. What stands in the way of change is often the lack of *will* and strong ethics rather than *skill* or technical competence since organizations rife with conflict, egoism and negativity will not likely achieve the expected results regardless of the resources at hand. This study, therefore, builds mainly on Trevino and Brown's (2007) research to explore what ethical leadership is, why it is important, what situational and individual characteristics influence the emergence of ethical leadership, and what each aspect implies for language teaching and quality across Moroccan universities.

## **Definition**

Brown et al. (2005) describe ethical leadership as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision making” (p. 120). In other words, ethical leadership involves a) modeling conduct that is considered appropriate in a particular context, b) promoting ethical conduct by setting, communicating, and ensuring respect for ethical standards, and c) making appropriate (principled and fair) decisions that followers can observe and emulate (Trevino & Brown, 2007, p. 106). Ethical leaders were described as concerned about and caring toward their

people, honest and trustworthy, principled, persuasive, committed to doing what is right in their personal and professional lives, fair, open and ethically aware, and showing concern for multiple interests, long-term outcomes, and means not just ends (Trevino & Brown, 2007).

### **Implication 1:**

Leadership lies in influence over one's social setting rather than in positions of power and status. What makes someone an ethical leader is not simply his or her position, personal traits, the results achieved, or the process in which they are achieved (Grint, 2010). Rather, ethical leadership is a combination of some or all of these components, which implies that language instructors across Moroccan universities can and should act as ethical leaders in their interpersonal relationships, whether with colleagues, students or administrative staff. Generating the much-desired change in language teaching, or any other discipline, across universities hinges primarily on the extent to which instructors exhibit ethical behavior, such as caring, trustworthiness, fairness, and other forms of prosocial behavior. Certainly, actors at all levels of the decision-making hierarchy have a role to play in the emergence of ethical leadership, particularly government officials who need to work on providing the moral and material support that is likely to encourage ethical behavior across university organizations.

### **Importance of Ethical Leadership**

Trevino and Brown (2007) maintained that ethical leaders were key to the success of organizations. Acting as a moral leader is important because followers often identify with and emulate ethical role models, particularly when rewards are provided for doing so. By being trustworthy and treating followers with care, concern and fairness, ethical leaders will create social exchange relationships, i.e. followers will reciprocate the care and fair treatment they receive by engaging in ethical prosocial behavior and refraining from unethical antisocial conduct (Trevino & Brown, 2007). As noted by Trevino and Brown (2007), ethical leaders are "moral managers," not simply moral persons, who try to proactively influence followers on ethical matters.

Ethical leadership is also the driving force of transformational leadership and change across organizations of all kinds. Studies have found that transformational leadership is positively related to perceived leader integrity (Tracey & Hinkin, 1994; Parry & Proctor-Thomson, 2002) and the leader's cognitive moral development (Turner et al., 2002). In other words, the more integrity and moral reasoning leaders exhibit, the more transformational they are likely to be. Similarly, leader honesty, integrity and trustworthiness have been associated with perceived leader effectiveness (Craig & Gustafson, 1998; Den Hartog et al., 1999;

Kouzes & Posner, 2011; Trevino & Brown, 2007). Transformational leaders are perceived to be ethical because they encourage followers to transcend their self-interest, satisfy followers' lower-level needs to focus on higher-level needs, and bring followers to higher levels of moral development by directing attention to important values (Trevino & Brown, 2007). Research has shown that transformational leadership has a powerful impact on followers' motivation, satisfaction, and performance (Lowe et al., 1996). Thus, ethical leadership as an antecedent of transformational leadership is elemental to the success of organizations.

### **Implication 2:**

Language teaching across Moroccan universities needs to be driven by ethical leadership in order to be effective. Relying on the development of technical expertise alone to address largely ethical challenges is unlikely to result in much improvement. In order for language instructors to be transformational, they need to act as ethical leaders in the first place. Similarly, policy makers need to behave ethically in order to be transformational and increase motivation, satisfaction and performance among instructors across university institutions.

### **Ethical Leadership from a Descriptive Perspective**

Brown and Trevino (2006) emphasize a descriptive and predictive approach to ethics and leadership rather than simply a prescriptive approach (what *should* leaders do). According to social learning theory (Bandura, 1977), individuals learn by paying attention to and emulating the attitudes, values and behaviors of attractive and credible models (Brown & Trevino, 2006). That is, for leaders to be seen as ethical by their followers, they must be attractive and credible role models. While power and status make ethical role models more attractive and more likely to be emulated, attractiveness extends beyond power and status to include care and concern and treating others fairly (Brown & Trevino, 2006). On the other hand, credibility includes being trustworthy and practicing what is preached, which are important characteristics that make leaders more credible and ethical role models (Brown & Trevino, 2006). As a result, credibility enhances leaders' effectiveness as followers pay more attention to and try to emulate ethical leaders' modeled behavior.

### **Implication 3:**

Effective teaching of languages across Moroccan universities does not simply depend on techniques and methods but more importantly on attitudes, values and behaviors. To achieve success in their work, language instructors need first to demonstrate ethical

leadership, i.e. attractiveness (care, concern and fairness), and credibility (trustworthiness and practicing what is preached) in their relationships with students, colleagues and staff. The same is true for public officials and policy makers, who need to act as attractive and credible leaders in order to influence language teaching across universities.

### **Situational Influences and Ethical Leadership**

Brown and Trevino (2006) identified three situational factors influencing followers' perceptions of an ethical leader: Ethical role modeling, the organization's ethical context, and the moral intensity of the issues faced by the leader. First, ethical role modeling implies having an ethical role model in one's professional experience, which contributes to the development of ethical leaders. Brown and Trevino (2006) found that "leaders who said that they had previously had an ethical role model at work were more likely to be identified as ethical leaders by their followers" (Brown & Trevino, 2006, p. 601).

Second, the ethical context of an organization concerns mainly the ethical climate (Victor & Cullen, 1988) or ethical culture (Trevino et al., 1998), i.e. the characteristics of the organization that support or undermine ethical attitudes and behaviors (Brown & Trevino, 2006). Victor and Cullen (1988) identified nine types of ethical climates based on three philosophical approaches (egoism, benevolence and principle) and three levels of analysis (individual, local and cosmopolitan). Studies have found that a benevolent ethical climate influences organizational commitment (Cullen et al., 2003) and ethical decision-making (Flannery & May, 2000). Thus, Brown and Trevino (2006) propose that stronger ethical contexts that support and encourage ethical conduct also support the development and maintenance of ethical leadership in organizations.

The third factor influencing ethical leadership consists of the moral intensity of the issues faced, encompassing mainly moral awareness or "recognizing an issue as having moral content," which is vital for activating processes of ethical judgment (Brown & Trevino, 2006, p. 602). There are two dimensions of moral intensity that influence moral awareness: the magnitude of consequences or the potential harm that might result from the situation, and the social consensus or the existence of strong ethical norms in a situation (Flannery & May, 2000). Brown and Trevino (2006) propose that "leaders who work in strong ethical contexts that support ethical conduct will be better prepared to handle morally intense situations and demonstrate their ethical leadership, and vice versa" (p. 602).

### **Implication 4:**

Ethical leadership develops in situ rather than in vacuo, i.e. in context, not apart from it. For the teaching of languages to meet its targets, Moroccan universities need to go beyond providing equipment and infrastructure to building strong ethical climates or cultures. To achieve this goal, actors at all levels have a role to play in the process. Language instructors in particular need to act as role models for each other as well as for students; their actions need to be driven by benevolent rather than selfish motives. Without role modeling and ethical climates where action is driven by benevolence and principles, actors across Moroccan universities, and language instructors in particular, will not likely develop the moral awareness necessary for ethically handling the issues they face in their everyday work. To develop ethical leaders and transform learning and teaching, there is need for instructors who role model ethical behavior, university contexts supporting ethical attitudes and behaviors, and ethical handling of morally intense situations. These three situational factors are closely interdependent, implying that the emergence of ethical leadership, as a vehicle of change, depends on the level of involvement of all different actors across the system.

### **Individual Characteristics and Ethical Leadership**

There are five individual characteristics influencing the perceived attractiveness and credibility of leaders and thus ethical leadership. To start with, there are personality characteristics, namely agreeableness, conscientiousness and neuroticism, which all influence the level to which leaders are viewed as ethical or less so. Agreeable leaders are altruistic, trusting, kind and cooperative; conscientious leaders are dependable, responsible, dutiful and determined while neurotic leaders are anxious, hostile, impulsive and stressed (Brown & Trevino, 2006). Brown and Trevino (2006) proposed that agreeableness and conscientiousness were positively related to ethical leadership while neuroticism was negatively related.

The second individual trait is motivation. McClelland's (1985) theory of motivation posits that individuals are driven by three main motives: The power motive or the need to influence others, the achievement motive or the desire to achieve something better than has been done, and the affiliation motive or the desire to have positive relationships with others. Research suggests that effective leaders often have a high need for *socialized* power, a moderate need for achievement, and a moderate to low need for affiliation (McClelland & Boyatzis, 1982). Thus, leaders who use power with greater inhibition for the benefit of others (socialized power) rather than for self-aggrandizement (self-serving power) will be more attractive and credible ethical leaders (Brown & Trevino, 2006).

Third, there is the trait of Machiavellianism or “the use of guile, deceit, and opportunism in interpersonal relations” (Christie, 1970, p. 1), which has been negatively associated with ethical leadership (Brown & Trevino, 2006). Machiavellian leaders use manipulation and coercion to achieve personal goals, which are behaviors that are not considered ethical sources of influence. Machiavellian leaders are therefore unlikely to be viewed as attractive ethical leaders (Brown & Trevino, 2006).

There are other individual characteristics influencing ethical leadership, such as the level of moral judgment, locus of control, and self-monitoring. With regard to the level of moral judgment, Kohlberg’s theory of cognitive moral development posits that individuals reason about what is right based on three major criteria: obedience and fear of punishment or exchange in relationships at the pre-conventional level, the expectations of significant others or rules and laws at the conventional level, and internal values and standards or universally held deontological principles of justice and rights at the principled level (Kohlberg & Hersh, 1977). Turner et al. (2002) found that those with higher levels of moral reasoning were more likely to be perceived as transformational leaders by their followers. Blasi (1980) and Ashkanasy et al. (2006) found that those who reason at principled levels are more likely to behave ethically to achieve consistency between thoughts and actions. Similarly, those who demonstrate *moral utilization*, i.e. the extent to which individuals utilize (not simply have) the capacity for principled thinking in ethical decision making, are more likely to be perceived as ethical leaders (Brown & Trevino, 2006).

On the other hand, locus of control (LC), or one’s perceived control over events in life, has also been found to influence ethical leadership (Hegarty & Sims, 1978; Miller & Toulouse, 1986; Trevino & Youngblood, 1990). Those with internal LC perceive greater control over their lives while those with external LC perceive that fate or powerful others exert greater influence on events. Internals, as Trevino and Youngblood (1990) found, are more likely to behave ethically compared to externals. Studies have found that the internal locus of control is positively related to effective leadership (Miller & Toulouse, 1986) and transformational leadership (Howell & Avolio, 1993).

The other individual characteristic influencing ethical leadership is self-monitoring, which consists of individuals’ attentiveness to and control of how they present themselves to others (Brown & Trevino, 2006). High self-monitors act as chameleons, adjusting their self-presentation to fit their social environments while low self-monitors act consistently across social settings without much concern for fitting into a given situation. High self-monitors are more likely to act as leaders (Day et al., 2002). Brown and Trevino (2006) contend that high



self-monitors should demonstrate more ethical leadership in strong ethical contexts. That is, high self-monitors will more likely be influenced by contextual support for ethical or unethical leadership behavior.

#### **Implication 5:**

Individuals influence the situation just as they are influenced by it. Language instructors across Moroccan universities have a level of responsibility in building ethical leadership across organizations, mainly through exhibiting desired individual traits such as agreeableness (being altruistic, trusting, kind and cooperative) and conscientiousness (being dependable, responsible, dutiful and determined). Conversely, it is important to understand that neurotic behavior such as being anxious, hostile, impulsive and stressed, and the use of deceit, manipulation and coercion in interpersonal relationships, i.e. Machiavellianism, are detrimental to language teaching regardless of individual expertise. To meet the targets of language teaching across Moroccan universities, instructors' actions need to be driven by a high need for *socialized* power, a moderate need for achievement, and a moderate to low need for affiliation or positive relationships with others. These motivations are of primary importance because they are what makes instructors effective leaders in the eyes of their students and colleagues. Technical expertise alone is not enough to transform learning and teaching across Moroccan universities. For language instructors to transform their organizations, they have to think about what is right at the principled level, i.e. based on internal and deontological universal values rather than fear and punishment, relationships of exchange, and the expectations of others. Even if the situation in which they function may not be conducive to the emergence of ethical leadership, instructors can still make a difference by role modeling ethical behavior, which will give them more control over events and thus help them develop an internal locus of control. Waiting for the situation to change is fatalism, and therefore language educators need to demonstrate a degree of flexibility, adjusting to the social settings where they operate in ways that are productive. In this sense, ethical leadership is a responsibility of all actors at all levels, starting from instructors in the classrooms and moving up to those at the top of the decision-making hierarchy. These actors need to understand that what drives quality and change across organizations of all sorts is not technical know-how, per se, but rather ethical behavior.

#### **Conclusion**

The challenges facing social and economic development in Morocco are primarily ethical in nature, necessitating an ethical rather than technical approach to change across all

different domains, including language teaching and learning. Ethical leadership, as shown by the research, is key to transformational leadership and effectiveness. In other words, language teaching must be driven by strong ethics or ethical leaders in order to achieve the desired outcomes. On the one hand, language instructors shoulder part of the responsibility for the emergence of ethical leadership across Moroccan universities. Language educators' attitudes and behaviors, or more specifically their individual characteristics, play an important role in the change process across organizations. On the other hand, the characteristics of Moroccan universities do influence how instructors think and behave. As a result, those at the top of the decision-making hierarchy must extend their efforts beyond providing material support to universities to building ethical climates or cultures. A shift in policy from the technical to the moral or ethical aspects of change is essential for the transformation of education and society as a whole.

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## **Multilingual Education in Morocco and Worldwide: Critical Study of Language-in-education Policies**

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### **Abstract:**

The co-existence of multiple languages is a normal state in many countries and communities over the world. Today, even the so-called monolingual societies are shifting towards bilingualism or multilingualism thanks to mobility, language contact and education. In Africa, some countries count hundreds of languages and local varieties. Despite the rise of the nationalist ideology in the previous centuries, which defends the idea of one homogenized nation with one language, the interest in multilingualism and multilingual education worldwide is burgeoning. In Morocco, the recent educational reforms including the National Charter for Education and Training, the Emergency Plan, the Strategic Vision and the Framework law for Education have all emphasised the importance of promoting multilingual education through integrating foreign languages in lower levels of schooling and diversifying the instructional languages. Critical qualitative research has been adopted as a methodology for this paper, which sought to explore multilingual education worldwide and critically investigate recent language-in-education policies in Morocco. Two major conclusions have been drawn from this critical study. First, while most bilingual and multilingual programs in Europe have been launched through a bottom-up approach, involving teachers and schools in the conception and implementation of such programs, teachers and schools in Morocco have little agency in the educational reforms, including the recent language policies. Second, multilingualism adopted in Morocco can be described as subtractive in the sense that it favours one language, French, to the detriment of national and other foreign languages.

**Keywords:** the language of instruction, multilingualism, multilingual education, language policies.

## **Introduction**

Despite the rise of the nationalist ideology in the previous centuries, which defends the idea of one homogenized nation with one language, the interest in multilingualism and multilingual education worldwide is burgeoning. Today, even the so-called monolingual societies are shifting towards bilingualism or multilingualism thanks to mobility, language contact and education (Ennaji, 2005; Rosenhouse, 2013). Africa is an excellent example of multilingualism as there are countries, which have hundreds of languages and local varieties. In Morocco, the recent educational reforms including the National Charter for Education and Training, the Emergency Plan, the High Council Strategic Vision and the Framework Law for Education have all emphasised the importance of multilingual education in improving the quality of education and preparing qualified and skilled graduates.

Although most of the multilingual programs adopted worldwide share almost the same objective, namely the promotion of plurilingualism through enabling citizens to communicate in languages other than their mother tongue, the nature of these programs and their outcomes differ from one country to another. The language policies adopted in each country and the implementation of these policies contribute to the emergence of a variety of concepts regarding multilingualism. For instance, while multilingual education in some countries leads to additive multilingualism promoting the minority languages along with the predominant or prestigious ones, other multilingual programs in other countries are subtractive in the sense that one language gets more privileged and prestigious to the detriment of other less dominant languages.

This paper sought to explore multilingual education in some parts of the world and investigate the latest Moroccan educational policies which seek to promote plurilingualism in Morocco. The critical qualitative methodology, which is adopted in this paper, is based on the principles of Critical Theory. The latter raises questions about power and critiques knowledge produced and imposed by the powerful elites (Tilley, 2019). Based on this principle, the researchers in this paper provided a critical analysis of the Moroccan language-in-education policies, all of which have been implemented through a top-down approach ignoring and disqualifying local knowledge and experiences of local stakeholders.

## **Multilingual education worldwide**

Bilingual and multilingual education programs are being implemented in many parts of the world thanks to the increasing interest in multilingualism, which is imposed by the

globalized nature of today's world. In Europe, according to Eurydice (2006), several countries have introduced either multilingual or bilingual programs in education. Seven European countries are reported to have trilingual programs, namely Estonia, Spain, Latvia, Luxembourg, the Netherlands, Austria and Sweden (Eurydice, 2006).

The Luxembourg trilingual program is reported to be the most successful model of multilingual education in Europe. The program uses three official languages, namely Luxembourgish, German and French as instructional languages in different levels of schooling, (Berg and Thoss, 1996; Lasagabaster, 2015). According to a report on language policy by the ministry of education in the Grand Duchy of Luxembourg (2005-2006), promoting and maintaining multilingualism is one of the main objectives of the Luxembourgish educational system. Students are required to achieve trilingualism to get a vocational or professional qualification. As a result, this program has promoted plurilingualism not only in education but also in all other areas of life. Today, thanks to this trilingual education program, most Luxembourgish people are able to communicate in at least three languages.

This success has inspired educational professionals in other parts of Europe to launch other similar initiatives. In the Basque Country, the Framework for the Trilingual Education Program uses Basque, Spanish and English for the teaching of non-linguistic subjects (Lasagabaster, 2015). Similarly, in the Ladin community, which is a minority community in the north of Italy, the local education authorities initiate a plurilingual program using Ladin, Italian and German as instructional languages (Mercator, 2016).

Outside Europe, Genesee (2008) refers to a multilingual education program in Montreal, where Jewish students attend schools with a trilingual program using Hebrew, French and English as means of Instruction. Most of these programs in both Europe and Canada are launched and implemented by local education authorities through a bottom-up approach. In other words, schools, teachers and parents play an instrumental role in the implementation of such programs.

In Kazakhstan, a trilingual CLIL program was adopted by the ministry of education in 2014 using Kazakh, Russian and English for teaching content subjects in secondary schools (Karabassova, 2018, 2020). In India, Mohanty, (2013) reports the emergence of an 'informal multilingual program', in which teachers use the students' mother tongue as a 'scaffolding device' along with Hindi and English, which are officially adopted as the languages of

instruction in Indian education, to improve comprehension. This is similar to Moroccan education, where Moroccan Arabic is used as a language of explanation at schools along with Standard Arabic and French, yielding a form of multilingual education.

### **Educational reforms and multilingual education in Morocco**

The Arab arrival since the 7<sup>th</sup> century and the French colonization in the first half of the 20<sup>th</sup> century have immensely affected the socio-cultural and linguistic landscape of the Moroccan community and contributed to its diversity, bringing about contact between speakers of different languages (Ennaji, 2002; Kesbi, 2003; Josenhouse, 2013). Thanks to this dynamic history, Morocco has become a multilingual country with five major languages, Amazigh, Arabic, French, English and Spanish, and several dialects. However, this multilingualism has not always been equitably represented in Moroccan education. The political and ideological interests of the language-policy makers have influenced the choice of instructional languages leading to the hegemony of some languages over the others.

In the last two decades, the reforms adopted recommend a shift towards multilingualism in language-in-education policies in order to overcome the challenges and provide the favorable conditions to improve the quality of education in Moroccan schools. In 1999, With the guidance and funding of the world bank, Morocco started an education reform known as the National Charter for Education and Training prepared by a committee of 350. The reform sought to treat the major issues mentioned in the world bank report (1995), especially the high rates of illiteracy, the lack of education planning, and high rates of dropouts (Elazami-Elhassani et al, 2016).

The reform addresses the language issue through lever 9, which draws up the country's language policies in education for the next two decades. The lever contains 9 articles. Articles 111, 112, and 113 focus on improving the quality of Arabic language teaching in all levels of schooling including higher education. Article 114 recommends teaching scientific and technical subjects in the language, which is used in higher education. Articles 115 and 116 are concerned with the integration of Amazigh in education, especially in primary schools, and the establishment of Amazigh departments at universities. Articles 117 and 118 give recommendations on how to promote the learning and mastery of foreign languages.

These recommendations can be summarized into two fundamentals. First, to overcome the linguistic challenges students have in middle and secondary schools, the reform suggests



introducing the two major foreign languages, namely French and English in lower grades of primary education. Therefore, Students in primary schools will start learning the basic skills of French in second grade, while English will be introduced starting from fifth grade. Second, the Charter recommends the use of these two foreign languages as media of instruction for the teaching of some content subjects or modules in order to reinforce their mastery.

Despite the fact that the implementation of some areas of reform in the National Charter for education has positively impacted Moroccan education especially in terms of quantity, the HC (2008) report several imbalances, which still impede the development of the Moroccan educational system. The major imbalances include the increasing rate of dropouts, illiteracy, the high rate of school repetitions and the low performance of students in core academic subjects such as math, science and languages.

To overcome this situation, the ministry of education initiated a new reform, namely the National Education Emergency Program (2009-2012). The reform was expected to fix the imbalances, which resulted from the previous reforms and consolidate the accomplishments achieved by the implementation of the National Charter for Education and Training. Specifically, the new reform was aimed at providing favorable conditions at schools, preparing qualified teachers and bringing children to schools (the Emergency Program, 2008). Based on the recommendations reported by the High Council for education (2008), the National Emergency Program addresses four major areas of reform and puts forward 25 projects. Regarding the language issue, the Emergency Plan reform highlights the importance of improving the teaching of national and foreign languages through calling for (i) the diagnosis of the students' language proficiency, (ii) establishment of a national plan for the learning of languages and (iii) evaluation of the language learning practices (Emergency Plan, 2008). However, the implementation of the several projects cited above did not have a significant impact on the classroom practices and the academic performance of students (Bouziane, 2020).

In 2015, The High Council for Education introduced The High Council for Education Strategic Vision (2015-2030) as a new initiative, which seeks to consolidate the gains and fix the continuing problems. The SV takes as a motto for reform "For a school of equity, quality and promotion". It is clear from the motto that this new reform will give more importance to improving the quality of Moroccan education in order to enhance students' academic performance. The new reform contains four major components: (i) Ensuring equity and

equality of opportunities for all, (ii) achieving quality for all, (iii) promoting individuals and society and (iv) Promoting leadership. These components contain 23 levers of reform. The lever 13 addresses the language issue based on three fundamentals namely, achieving equity and ensuring equal opportunities in the learning of languages, upgrading of the two national and official languages in conformity with their status in the 2011 constitution and the establishment of a progressive and balanced plurilingualism (the High Council for Education Strategic Vision, 2015-2030).

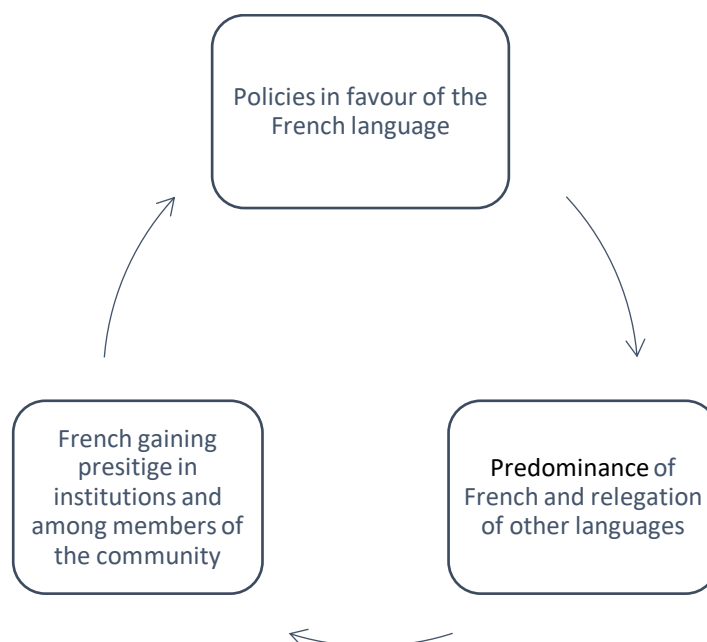
The tendency to diversify the languages of instruction in secondary education has been consolidated by the recent Framework Law for Education reform, which has been adopted by the Moroccan parliament in 2019. The law reiterates the previous reforms' major objectives and emphasizes two fundamental pillars: equal opportunities and quality for all. The reform adopts multilingual education beside Arabic which was the language of instruction in secondary and primary schools, especially for the teaching of scientific subjects and paves the way for the hegemony of French in Moroccan education. As a first step, the ministry of education has launched the new policy in qualifying secondary and middle schools by creating International Baccalaureate classes. In addition, at the primary level, the ministry has renewed the textbooks adding some French-medium activities in science and math textbooks. The objective is to prepare elementary school students for the total switch to French-medium instruction in middle and secondary schools.

### **Critical analysis of the language reforms**

Although the reforms adopted so far have achieved significant quantitative outcomes especially in school enrollment and the expansion of schooling to remote areas, there are still several issues, which could not have been resolved especially at the level of quality, which exerts a negative impact on students' academic performance. For instance, although all reforms have recommended reforming language teaching in Moroccan education and diversifying the languages of instruction, the outcomes are not as promising as expected. Almost 20 years now after the launch of the National Charter for education, the only language that seems to take advantage of the educational language policies is French. The latter has recently been introduced as a first foreign language in first grade of primary schools and adopted as a delivery language of teaching in most middle and secondary schools. By contrast, the ministry of education has failed to introduce English as a second foreign language in primary schools, as is recommended by article 117. In addition, in higher

education, French is consolidated as the only language of instruction in science and technical universities and higher institutions. Neither Arabic nor English has benefited from the recommendations to teach some scientific modules or subjects through these languages. This situation raises questions again about the real objectives behind the implementation of educational policies in Morocco and the ideology of the educational policymakers. While reforms succeed in consolidating the prestigious status of French in Moroccan education, they fail to improve the status of national languages or other foreign languages.

In fact, there is a huge gap between the conception and the implementation of most of the reforms adopted. For instance, while the reforms conceptualize a kind of additive multilingualism, where students are expected to master their national language and learn two foreign languages, the implementation phase yields a kind of subtractive multilingualism, which favors and consolidates French, which is surprisingly a foreign language and marginalizes other languages including the official ones. One can feel optimistic when reading the reform objectives and projects, but the implementation phase does not reflect the conceptualized principles and projects. The liberal French-speaking elite seems to exert a significant impact on the implementations of these reforms as they hold positions in higher official institutions. They support and give priority to educational policies that serve their ideology and interests and marginalize other conservative policies, which are aimed at preserving the unity and identity of the country. A good example of such influence is the adoption and generalization of French-medium instruction in Moroccan schooling to the detriment of the national language. This reinforces the prestigious status of French not only in education but also in other major areas of life, which affects future language policies in favor of this language and to the detriment of national languages as well as other international languages. The following diagram illustrates the inter-influence between the prestigious status of French and Moroccan language policies. The current favorable status of French in Moroccan life, which is the result of previous language policies during and after the independence, influences current and future language policies and enables French to hegemonize other national and foreign languages within the Moroccan language market.



To sum up, the major factor, which may explain the failure of most reforms adopted so far is the fact that educational policies, especially language policies, are imposed through a top-down approach. The policymakers and the ministry of education seem to ignore the instrumental role of the field executors in the success of any educational initiative. To use the Critical Theory concepts, the people in ‘power’ in this country seem to disqualify and ignore the ‘local knowledge’ which can be produced by powerless stakeholders. Therefore, in education, teachers as well as other local educational professionals, who are considered as mere executors of the educational policies, have little agency in the implementation of educational reforms. For example, recently adopted multilingual program, which is based on teaching scientific subjects through foreign languages, has been conceptualized by political policymakers and imposed by the ministry of education without any preparation of students or involvement of science teachers.

More interestingly, although nearly all previous educational reforms and language policies have failed to achieve the expected outcomes, the knowledge produced in these reforms is still considered as a priori and new reforms are conceptualized based on previous reform. Decisions are still taken at the highest-level political institutions involving policymakers, who know little about the specificities of Moroccan schools and students. In addition, copying international educational initiatives, especially those in French education, and wrongly pasting them in the Moroccan context is still a common feature of most reforms. It seems that Policymakers cannot trust schools and local stakeholders to initiate reforms and implement them taking into account the specificities of each region. However, when the

reforms fail to accomplish the objectives, which is often the case, the failure is, surprisingly, blamed on those local stakeholders, especially teachers and families.

### Conclusion

This paper has explored some multilingual programs worldwide and critically investigated the recent language policies in Moroccan education, which seek to promote plurilingualism through adopting multilingual education. Two conclusions can be drawn from this study. First, most of the successful multilingual programs worldwide have been implemented through a bottom-approach involving schools and local stakeholders. By contrast, in under-developed countries, including Morocco, the language policies usually take a top-down approach. For instance, in Kazakhstan, Karabassova (2020) found that teachers have little agency in the recently adopted multilingual program in Kazakhstani education. The same is true for Moroccan education, where French-medium instruction is imposed all over the country without any involvement of teachers or parents. Second, in contrast to some additive multilingual programs in Europe such that of Luxembourg, the program adopted in Morocco looks multilingual, but it is, in fact, subtractive as it consolidates the hegemony of French to the detriment of other languages.

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## **Students' Perceptions of the Use of French as the Medium of Instruction of Science Subjects in Secondary Education**

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### **Abstract:**

Using French as the medium of instruction of science and technical subjects in high schools is an issue of heated debate among Moroccan politicians, intellectuals, and education stakeholders: while some of them argue that this decision is necessary, others consider it as a traitorous act. Although students are the end recipients of any reform, their views have received little attention. The purpose of this study was to explore students' attitudes towards teaching science subjects in French. A survey questionnaire was employed as a data collection instrument. A total of 72 students from the Faculty of sciences at Moulay Ismail University in Meknes participated in this study. Findings show that the participants hold favorable attitudes towards French as a language. They also support its use as the medium of instruction of science subjects in secondary schools. The intention to pursue postgraduate studies and the fact that French is the language of the job market in Morocco are the two main reasons why they are in favor of the recent language education policy initiated by the Higher Council of Education.

**Keywords:** language policy, French as a medium of instruction, attitudes, science subjects,



## **Introduction**

Over three decades have passed since Morocco adopted Arabization with the hope of restoring the Moroccan identity after independence. As the language of culture and religion, Arabic is regarded as the language that “symbolizes self-affirmation, against foreigners” (Marley, 2004, p. 30). Hence, its adoption was seen as a sign of political as well as economic independence from the West, particularly the French (Marley, 2004). According to Boukous (2001), the Arabization project was meant to make standard Arabic the language of education, administration, and media. The aims, according to him, were to 1) give back the Arabic language the status and functions it had before the French Protectorate rule, and 2) modernize Arabic as a means of scientific and technological knowledge.

Unfortunately, the dispute over the implementation of Arabization was a major factor in the failure of the project. According to Ennaji (2005), we have to distinguish between three Arabization discourses: the purist, the fundamentalist, and the governmental. The first one suggests using Arabic in all the sectors in order to ensure a gradual eradication of French. The second one associates language with religion: since Arabic is the language of the Quran, tradition, and beliefs, it is the only language worth to be teaching and learning. The third one recommends French-Arabic standard bilingualism because Arabic cannot be used in all domains such as science and technology.

In 2000, the National Charter of Education and Training was published to mark the beginning of a change of the national language policy after the realization of the fact that a linguistically united nation is an elusive objective (Agnou, 2004; Marley, 2004). The charter aimed to provide a balanced language-based educational policy. On the one hand, it recognized the value of Arabic in Morocco as a symbol of Moroccan identity and culture without ignoring the existence and importance of the Tamazight language as an equal symbol of the Moroccan identity and culture. On the other hand, it addressed the issue of education in a rational way. It stated that the most specialized scientific and technical units and modules should be taught, at the baccalaureate cycle, in the same language as that used in the branches and corresponding sections at the higher education level (COSEF, 1999).

More recently, a draft framework law to teach all science subjects at secondary schools in foreign languages was formulated. The objective is to better prepare Arabized students for higher education in scientific specialties that are taught in French. However, it was far from

been agreed upon; It generated a heated debate between those who are for the project and those who are against it. Many politicians from the Islamist Justice and Development Party (PJD) and the Istiqlal Party (PI) voiced their total opposition. Abdelilah Benkirane, the prime minister from 2011 to 2017, went as far as asking the current Moroccan Prime Minister Saad Eddine El Othmani to resign from office rather than to approve the “Frenchising” of scientific subjects (Guerraoui, 2019). Despite this strong opposition, Said Amzazi, the Minister of National Education, Vocational Training, Higher Education and Scientific Research affirmed at every opportunity that the teaching of science and technical subjects in a foreign language is an irreversible choice (Langue d’enseignement, 2019).

In fact, Arabization was doomed to fail. The inconsistent nature in which it has been implemented was detrimental to the project and served rather in reinforcing the French’s status (Zakhir & O’Brien, 2017). That is, keeping the teaching of science subjects in Arabic up to secondary education only without subjecting universities to the Arabization process as well created a linguistic divide. This constituted a real handicap for students to carry on their studies after getting their baccalaureate (Bullock, 2014). Moreover, the fact that there is an absence of Arabic in scientific literature does not privilege it as a language of instruction of science subjects. In a study by Zakhir and O’Brien (2017), all the surveyed public and private Science and Math school teachers reported difficulty in employing Standard Arabic in their teaching practices.

In a press statement released in 2019, the presidents of the Moroccan universities expressed their total support for the use of French as a medium of instruction while recommending setting up the necessary conditions of the teaching of these subjects in English in the future. For them, the establishment of the teaching of science subjects in foreign languages at the primary and secondary levels constitutes an IMPERATIVE OF SOCIAL JUSTICE since only pupils from lower classes are affected by this linguistic divide. Those who are from privileged go to private schools where science subjects are taught lessons in French, or even in English. Other reasons for their support for the language measure initiated by the Higher Council of Education include:

1. Only 12% of baccalaureate graduates are enrolled in science branches
2. Nearly 30% of science baccalaureate graduates avoid science branches because they do not master the language of instruction.

3. The language problem is a major factor in the involuntary orientation of students towards Faculties of Letters and Human Sciences.
4. A significant number of Faculties of Sciences students find difficulties to obtain their diploma within a reasonable period (Communiqué de CPU, 2019).

## **Methodology**

### **Research Problem and Questions**

Although students are the end-recipient of any education reform, to the authors' best knowledge, relatively little research has been carried out on learners' perspectives of the current changes in the language education policy. Accordingly, the purpose of this study was to examine the perceptions held by faculty of sciences students at Moulay Ismail University in Meknes toward the use of French as the medium of instruction of science subjects in secondary education.

The study sought to answer the following specific research questions:

- 1) What is the attitude of the Faculty of science students towards French?
- 2) To what extent are faculty of science students in favor of the adoption of French as the medium of instruction of science subjects at high schools?

### **Research instrument**

A researcher-designed questionnaire was developed. It comprised three sections: the first one consisted of a set of demographic questions; the second one addressed students' attitude towards French, and the last one examined participants' preference for the medium of instruction of science subjects in secondary education. The participants were asked to rate their level of agreement with several statements on a five-point Likert scale (strongly disagree, disagree, undecided, agree, and strongly agree).

### **Data Collection and Analysis**

The snowball sampling technique, which involves asking "participants to identify others to become members of the sample" was opted for (Creswell, 2012, p. 146). Students were requested to forward the survey to their classmates. Concerning data analysis, descriptive statistics of frequencies, percentages, means, and standard deviations were employed in the analysis of the quantitative data collected. It is worth mentioning that the researcher made use of the statistical package for social science (SPSS) 25.

## Population

In this study, all of the participants were carrying on their studies at Moulay Ismail University in Meknes in the faculty of sciences. A total number of 72 filled out the questionnaire: 38 females (52.7%) and 34 males (47.3%). The age of the participants ranged from 19 to 24.

## Results and Discussion

The overall research questions have been used to organize the presentation and discussion of the data.

### *Research question 1: What is the attitude of Faculty of science students towards French?*

The table below summarizes the respondents' answers to survey questions 1 to 6.

Table 1. *Students' attitudes towards French (n = 72)*

Items		SD	D	UN	A	SA	Mean	St.D
<b>1/ I have a real desire to learn French</b>	N	0	2	5	0	65	4.77	.69
	%	0	2.8	6.9	0	90.3		
<b>2/ I have a good feeling towards French</b>	N	3	5	13	19	32	4.00	1.38
	%	4.2	6.9	18.1	26.4	44.4		
<b>3/ When I use French, I feel that I have lost my identity.</b>	N	33	21	9	7	2	1.94	1.11
	%	45.8	29.2	12.5	9.7	2.8		
<b>4/ French is a mark of an educated person.</b>	N	10	25	11	15	11	2.88	1.31
	%	13.9	34.7	15.3	20.8	15.3		
<b>5/ Learning through French increases my chances to carry on my higher Education.</b>	N	0	0	3	15	54	4.70	0.54
	%	0	0	4.2	20.8	75		

<b>6/ Learning through French will increase my chances of getting a good job after graduation.</b>	N	5	6	7	24	30	3.94	1.22
	%	6.9	8.3	9.7	33.3	41.7		
<b>Weighted Mean: 3.71</b>								
<b>Standard deviation: 0.58</b>								

\*Note. **SD**=Strongly disagree, **D**=Disagree, **N**=Neutral, **A**=Agree, **SA**=Strongly agree, and **Std.D**=standard Deviation

Contrary to expectations, the majority of the respondents did not regard French as a threat to the Moroccan identity: 75% expressed their disagreement with the idea that the use of French is equated with a loss of identity. Moreover, despite the widespread perception that French is the language of the colonizer and symbolizes dominance and Moroccan sufferings under colonization, two-thirds of the respondents reported that they did not have negative feelings towards French.

Concerning the desire to learn French, it was found that there is a high enthusiasm for that among the participants: 90% strongly agreed with the statement “I have a real desire to learn French”. A closer look at the data implies that this high interest is driven by an instrumental motivation. This type of motivation can be defined as “the desire to achieve proficiency in a language for utilitarian or practical reasons” (Krashen, 1981, p. 22). It is contrasted with the integrative motivation which refers to “the desire to be like valued members of the community that speak the second language” (Krashen, 1981, p.22). While the number of students who link French to being educated is around a third of the respondents, the overwhelming majority of the participants reported that they believe that learning French increases their chances to carry on their higher education and to get a better job after graduation with mean scores of 4.70 and 3.94 respectively.

For a clearer picture, the overall mean score of the scale was computed. The following guidelines were adopted in the interpretation of the mean obtained: values ranging from 2.50 to 2.99 implied low positive attitudes, 3.00 to 3.25 meant moderate positive attitudes and a score exceeding 3.25 indicated a high positive attitude. Since the weighted mean value is 3.71 (SD=0.58), we can conclude that the attitudes students hold towards French as a language are very favorable and positive.

These results seem to be consistent with the findings of other studies. For example, Marley (2004) found that the majority of secondary and high school student respondents believe that “French is useful for working in Morocco and useful for science and technology, whilst a slightly smaller majority believe it to be a language of culture” (Marley, 2004, p. 38). Similarly, Zakhir and O’Brien (2017) found that science teachers have conflicting attitudes about the use of Standard Arabic in science classes. “They are torn between their views which see French as a powerful scientific language and Arabic as an underdeveloped language with a weak terminology, but also as the language of their identity” (p.10).

Overall, it is clear that Moroccan students are pragmatic in their approach to French. They recognize that it is the language used in higher education and they are aware that most foreign investments are of French origin and thus dominate the Moroccan economic market (Bullock, 2014; Sylla, 2019). Thus, learning French becomes a necessity for success.

***Research question 2: To what extent do faculty of science students support the adoption of French as the medium of instruction of science subjects in high schools?***

The table below displays participants’ answers to statements 7 to 12.

*Table 2. Students’ views on the use of French as the medium of instruction of science subjects (n = 72)*

Items		SD	D	UN	A	SA	Mean	St.d
<b>7/ I usually need clarifications in Arabic to understand the courses at university.</b>	N	8	9	6	22	27	3.70	1.37
	%	11.1	12.5	8.3	30.6	37.5		
<b>8/ I find difficulty in understanding the questions in exams due to French.</b>	N	5	7	11	20	29	3.84	1.25
	%	6.9	9.7	15.3	27.8	40.3		
<b>9/ My marks are never disturbed by French.</b>	N	39	12	7	11	3	1.98	1.28
	%	54.2	16.7	9.7	15.3	4.2		

<b>10/ I wish I had been taught science subjects through the medium of French in high school</b>	N	0	2	13	14	43	4.36	0.87
	%	0	2.8	18.1	19.4	59.7		
<b>11/ French is better suited for learning science subjects at schools and universities</b>	N	11	3	11	34	13	3.48	1.27
	%	15.3	4.2	15.3	47.2	18.1		
<b>12/ I think that Arabic should be the medium of instruction in higher education</b>	N	11	16	23	9	13	2.95	1.30
	%	15.3	22.2	31.9	12.5	18.1		
<b>Weighted Mean: 3.39</b>								
<b>Standard Deviation: 0.64</b>								

\*Note. **SD**=Strongly disagree, **D**=Disagree, **N**=Neutral, **A**=Agree, **SA**=Strongly agree, and **Std.D**=standard Deviation

An important issue that emerged from the data is the difficulties students are facing because of having to study in a language they are not competent in. More than two-thirds of the participants reported that they needed clarifications in Arabic to understand courses, and experienced problems during the examinations in understanding the questions and instructions. In response to item 8, only 14 out of 72 students mentioned that their grades were never affected by French. These results could explain why the overwhelming majority of the participants (80%) wish they were taught science subjects in French in high school.

With regard to the language that should be adopted as the medium of instruction of science subjects at schools and universities, the number of students who believed that Arabic should be the medium of instruction in higher education is very small. Only 22 out of 72 students were for the use of Arabic at the faculty of sciences. However, two-thirds of the participants expressed their agreement with the use of French as the medium of instruction at both universities and schools.

As mentioned earlier, the second research question intended to investigate the extent to which students support the use of French as the medium of instruction of science subjects. To have a clearer and better picture of the respondents' answers, means and standard deviations

were calculated. Mean scores between 1.33 and 2.33 implied a low level of support, 2.34 to 3.67 indicated a moderate level of support, and 3.00-3.39 meant a high level of support. The fact that the weighted mean score is 3.39 is a clear indication that students are in favor of the substitution of Arabic by French as the medium of instruction of science subjects in secondary education

As a matter of fact, these results were not surprising. They reflect those of Bouziane and Rguibi (2018) who conducted a study to investigate the reasons why Moroccan baccalaureate holders from science streams choose to join faculties of letters instead of faculties of sciences. The findings of their study showed that only 8% of 528 students from three faculties of letters of Hassan II University of Casablanca expressed their support for studying science subjects in Arabic in high schools. The results are also in agreement with Zakhir and O'Brien (2017)'s findings which showed that 63.6 % of public and 50 % of private Science teachers were not in favor of Arabization.

## **Conclusion**

The most important limitation of this paper lies in the fact the researcher used a convenience sample from one faculty of sciences. Another limitation is the relatively small sample size. Thus, it would be inappropriate to generalize the research findings to the larger population of Faculty of sciences students at different Moroccan universities. Still, the current study provides further support for the language measure initiated by the Higher Council of Education. The Arabization project as applied in the Moroccan context is clearly unproductive and ineffective. Faculty of science students' poor academic performance can be partly attributed to their unpreparedness to carry on their studies in French after getting their baccalaureate (Communiqué de CPU, 2019).

Arabization is also unfair as Ennaji (2003) observed when he stated that "the education system has a double standard, in the sense that it disfavors Arabized graduates while it benefits, both pedagogically and socio-economically, French-educated upper class" (p. 44). The increasing demand for foreign and private schools that provide instruction in foreign languages indicates clearly that only students from lower classes are affected negatively by Arabization (Boukous, 2001; Communiqué de CPU, 2019).



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## **The Challenges Facing the Teaching of English in Moroccan Universities: Flaws in Planning, Failures in Implementation**

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### **Abstract:**

As of 2015, there has been an ongoing debate on the importance of teaching English in Moroccan higher education institutions. Indeed, an official circular issued by the Ministry of Higher Education on May 20<sup>th</sup>, 2016, went as far as making the mastery of English a prerequisite for the doctoral graduation. While this is a laudable move inasmuch as it aims to improve the quality of scientific research in Moroccan universities and by the same token to ensure a certain visibility for Moroccan researchers at the international level, the Ministry's strategy and policy are not quite clear on how this could be achieved, and its implementation as of 2016-17 leaves much to be desired. A number of vital questions need to be answered in relation to the required language entry level given, the time and cost needed to reach the target level, who should pay the bill etc.

While these are genuine questions that need to be answered (which we do elsewhere, see Al Ghadi, A., Biddou, N., & Boukanouf, A (2016,2017)), we address in this paper how the principal stakeholders, namely the population targeted by this policy, are reacting to this move. As an initial step, we surveyed current doctoral students from different Moroccan higher education institutions and report on their reactions in this paper. Preliminary results of the survey show that while these vary from complete rejection of the decision by some to a reasonable acceptance by others, the general impression is one of confusion and frustration.

**Key Words:** Higher Education, Language Planning, English Language Teaching, Language Policy

## **Introduction:**

During the last couple of years, the Moroccan government has showed a great interest in the English language especially at the level of higher education and scientific research. A circular was thus issued in May 2016 urging higher education institutions to implement the teaching of English at postgraduate programs, therefore making it a key requirement for those who would like to pursue academic studies.

English is, in fact, introduced to Moroccan students starting from middle school for a minority and from high school for the majority, unlike in private schools where students are introduced to this language at the primary level. Issuing such a circular has raised a great debate among doctoral students who feel anxious about the extent to which this decision will be beneficial and how it could affect their academic tracks.

According to Al Ghadi, Biddou and Boukanouf (2017), students at the undergraduate level are highly motivated to learn the language and wish its inclusion as of the first year of undergraduate studies. Likewise, graduate students, especially those of scientific majors, expressed their need to learn the language and requested to have it included throughout graduate studies.

The biggest problem lies in the fact that no Moroccan university has launched yet any serious official program for doctoral students to benefit from English classes with the objective of enabling them to produce theses and articles in English. Only a few institutions have taken the initiative to implement English within their research laboratories. However, these experiences are not based on any solid grounds and, as a consequence, have drastically failed.

The whole decision is based on a series of statements that have been developed to encourage the inclusion of this powerful language in Moroccan universities and mainly in scientific research but failed to meet the objectives due to the lack of the important element of planning. Moreover, lack of resources, monitoring and evaluation have contributed in slowing down the process of acting on this decision. This state of affairs has had drastic effects on doctoral students: they are currently caught between their motivations and needs to learn the language for academic purposes on the one hand, and their willingness to conform to the standards established by their research institutions in order to obtain their degrees on the other.

Both the government and the university officials seem indifferent to these escalating problems, which have increased the feelings of insecurity and uncertainty among the concerned community of young researchers: should they reconcile with the issue and comply

with its requirements or risk their future by just overlooking it? Coming up with this decision is a big step for the Moroccan government towards making of Moroccan higher education and scientific research a decently advanced sector, but this decision has engendered huge controversy and challenges calling into question how policy makers proceed with taking such decisions without ensuring the means for their implementations.

### **1. Statement of the Problem**

English is widely recognized as the lingua franca of higher education and research. It is the most pre-dominantly used language in academic events, conferences, and research publications worldwide (Narvaez-Berthelemot & Russell, 2001). The fact that it holds such a status makes it a liability for non-English speaking researchers and students, who are put under a huge pressure in both the event of academic collaborations and the success of their careers as researchers (Canagarajah, 2002).

Likewise, Moroccan doctoral students recognize the role the English language plays in academic advancement and feel anxious about how it affects their desire to pursue their research interests and aims. In the eve of the prematurely issued 2016 circular, Moroccan doctoral students were affronted with the outrageous statement imposing English as the key to obtain doctorate degrees. The fact that this decision was taken abruptly constitutes a problem for Moroccan researchers as it is meant to apply to all students regardless of their levels or fields of specialization, which if taken seriously would hinder their academic achievement and slow their progress.

### **Objectives**

In this article, we aim to examine doctoral students' reaction to the abrupt decision issued by the former Minister of Higher Education and, by doing so, identify the possible ways to implement the said decision.

### **Questions**

The present study seeks to answer the following research questions:

1. Do students' reactions reflect conformity with the sudden decision?
2. Are there any alternative and more effective ways to implement the teaching of English in higher education?
3. Given the immediate implementation of the circular, how can doctoral students redeem the missing English classes?

## **2. Research Methods and Procedures**

Taking into account the nature of the study's data, we have resorted to a mixed method approach for both data collection and analysis. The data collection process took place between May 2016 and July 2017. It was implemented in three stages: As a starting point, we collected doctoral students' reactions to the announcement through Facebook as a social networking platform and through short-interviews as the debate around the issue was taking place. The feedbacks collected were a variation of against, for and neutral statements. At a later stage, we designed a questionnaire to get a profound understanding of the issue. It is noteworthy to mention that the questionnaire was distributed a year after the collection of the first set of the data with the aim to re-affirm or refute the students' previous reactions.

The questionnaire covered nine close-ended questions about the students' previous English language learning experience, their interest in learning English for academia, the type of English desired (General, ESP, etc.), their acceptance or rejection of the ministerial decision and lastly one open-ended question about their feelings and perceptions towards the official statement. The interview, on the other hand, consisted of a series of questions related to the students' reactions to the decision of integrating English at the postgraduate level, their worries and concerns, and finally their own rational suggestions to remedy the current situation.

### **Population**

Our targeted population consisted of a total of 136 doctoral students from different Moroccan universities and different research laboratories representing first, second, and third official years of doctoral studies, in addition to the two or more years of permitted extension. Out of 136 participants, 103 responded to the questionnaire while 33 took part in the interviews. As far as the questionnaire is concerned, **Table 1** provides a detailed description of the population.

	<b>Female</b>	<b>Male</b>
<b>Students</b>	50.5% 52	49.5% 51
<b>Age</b>	23 – 43 years	
<b>Level</b>	1 <sup>st</sup>	25.2%
	2 <sup>nd</sup>	21.4%
	3 <sup>rd</sup>	36.9%
	+2	16.5%

**Table 1:** Population distribution by gender, age, and level (Questionnaire)

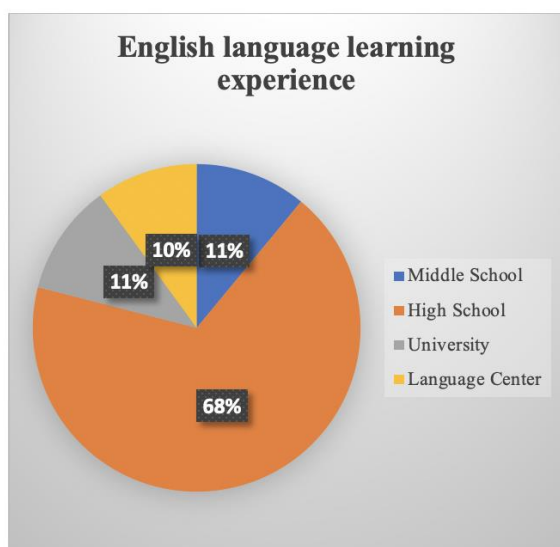
We recorded a total of 103 participants of both genders, with a slightly higher participation of females (50.5%). The respondents in the questionnaire aged between 23 and 43 years old, and the majority were in their third year of doctoral studies (36.9%).

	<b>Female</b>	<b>Male</b>
<b>Students</b>	60.6% 20	39.4% 13
<b>Age</b>	25 – 45 years	
<b>Level</b>	1 <sup>st</sup>	9.1%
	2 <sup>nd</sup>	21.2%
	3 <sup>rd</sup>	60.6%
	+2	9.1%

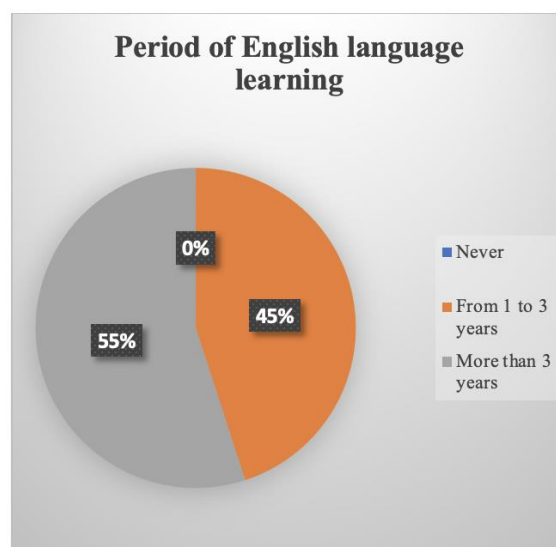
**Table 2:** Population distribution by gender, age and level (Interview)

As far as the interviews are concerned, the respondents' age varied between 25 and 45 years old with an overwhelming majority of females (60.6%). As shown in Table 2, the largest proportion of the participants were in their 3<sup>rd</sup> year (60.6%) majoring in humanities, economics, law and sciences.

The participants belong to various research laboratories of different fields from several Moroccan higher education institutions. The majority of the respondents (68%) declared they previously received English language classes in high school while, out of 103, only 11 (10%) benefited from English classes at university. The average (55%) respondents stated that they had studied English for a minimum of 3 years (see the graphs below).

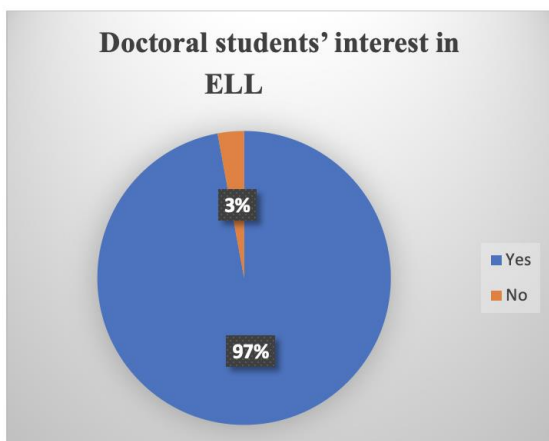


**Graph 1.** English language learning experience

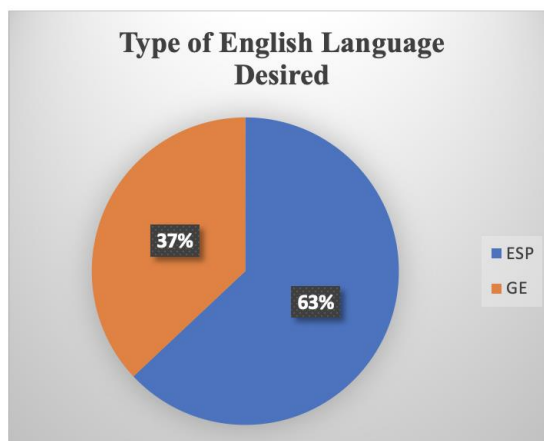


**Graph 2.** Period of English language learning

As far as the teaching of English to doctoral students is concerned, only one third confirmed that English classes are being given as part of their doctoral programs. Most probably because most of these classes are not free, the great majority of the respondents<sup>1</sup> revealed they have never taken English classes within postgraduate studies. In the absence of English classes at university, 97.1% of the respondents expressed their interest in learning the language especially ESP, that is, English related to their fields of study and areas of research (63%).



**Graph 3.** Doctoral students' interest in ELL



**Graph 4.** Type of English Language desired (ESP Vs. GE)

<sup>1</sup> Only 11.5% of the respondents declared they took English classes while studying at university.

### **3. Data Analysis and Findings**

The retrieved feedback, as explained in the research method section, was collected from both interviewing Moroccan doctoral students on their Facebook group and, a year later, surveying a group of respondents through the questionnaire. The doctoral students' reactions varied from total acceptance to total rejection. Those who showed agreement with the minister's circular claimed that English must be first implemented throughout undergraduate studies with a continuation of the classes across higher education schools. Only then will it be legitimate to apply this decision. Others went as far as suggesting the implementation of English language teaching as early as Grade 1 (elementary). Additionally, they acknowledge the importance of English in higher education especially that, in terms of research, the French language has been at a disadvantage since most of the publications in French do not exceed 2.5%<sup>2</sup>. To this end, they suggested that there should be stylesheet guidelines to comply to the standards of publication in international journals. From their reactions and feedbacks, we conclude that Moroccan doctoral students are fully aware of the importance of English in academia.

On the opposing side, those who were not in favor of the decision argued that instead of condemning their mother tongues, especially with the existence of English, most developed countries preserved their own linguistic heritage. Additionally, a minority of the doctoral students who commented on the Facebook post saw that integrating English as part of higher education curricula in general and in postgraduate studies in particular constitutes a threat to Darija and Standard Arabic. In addition to the aforementioned reasons, the doctoral students attested to the unrealistic expectations of the said decision, especially for those preparing theses in French or Arabic who are required, nonetheless, to hold their viva in English. They view English as a barrier to students' access to postgraduate studies due to their lack of mastery of the language. Aligning with their claims, doctoral students suggest that policy makers should have thought about implementing English, with a volume of no less than 120 hours per academic year, a long time ago within both undergraduate and graduate studies instead of suddenly imposing it now on doctoral students.

It seems that those who took a somehow middle position believe that acquiring a foreign language is no longer an issue as one can have access to English classes in different language centers. The issue lies between the students and the government, as there is apparently neither

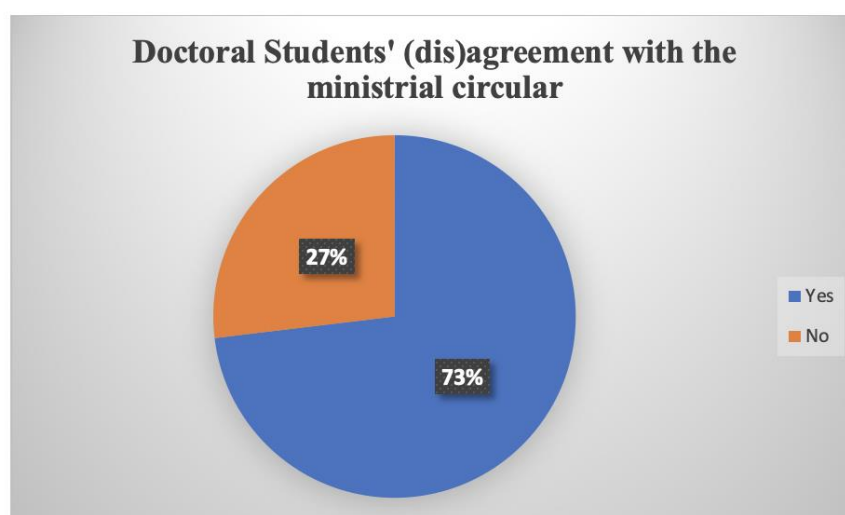
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<sup>2</sup> The reported percentage was extracted from the Facebook group "Doctorants Marocains", from which we gathered, through postings, doctoral students' feedbacks and reactions about the said issue.



any readiness for self-development on the part of the students nor any careful planning on the part of the government. In other words, students do not commit to attending classes when these are offered for free, nor do they seek to develop their linguistic skills on their own. The government in turn is also to blame since it has failed to provide a clear and efficient work plan to universities and the authorities responsible for implementing this decision.

Referring back to the questionnaire which was distributed to a large number of doctoral students across different Moroccan universities, we observed that the collected responses significantly corroborate the statements collected from the Facebook post.



**Graph 5.** Doctoral students' (dis)agreement with the ministerial circular

As Graph 5 illustrates, the degree of acceptance is of 73%. These contradictory results show that there is no consistency in terms of the students' acceptance or rejection of the said circular. Moroccan doctoral students appear to be confused regarding the enforced decision, a decision which in itself has not been implemented. These doctoral students are required to publish a minimum of one article in English even if they are not qualified, at least linguistically speaking, to write in English a decent article that conforms to the established academic standards. To overcome the lack thereof, instead of relying on themselves, students often resort to translators, who charge a lot for mostly badly translated drafts.<sup>3</sup>

The postgraduate researchers, as a result, find themselves in a situation that at best slows their productivity and at worst drives them to dropping out. Moreover, it denies them the right to a large number of opportunities especially at the international level such as getting grants and

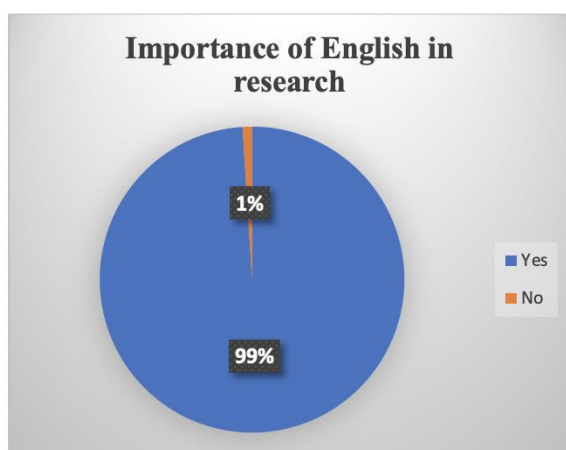
<sup>3</sup> Semi-structured interviews took place before the administration of the surveys as the targeted population was reachable. Thus, we found it practical to administer the interviews before the questionnaires.

scholarships, participating in international conferences, and publishing in indexed international journals.

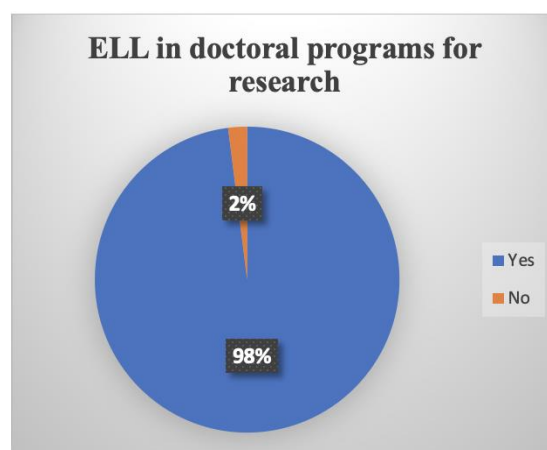
On the one hand, even when volunteering to offer free English language classes at universities, teachers, on their part, find themselves giving classes with no clear objectives, let alone developed curricula. Thus, they are obliged to develop their own syllabi and come up with their own teaching materials. Students, on the other hand, are not committed to attending classes since these are both free of charge and not part of their doctoral program assessment. To make the teachers' task even more formidable, the teachers have to face mixed level classes with different language needs, which result in the students' not taking any benefit from the classes.

Moroccan PhD students do appreciate this ministerial initiative and encourage its implementation. Yet, they are fully aware of the challenges facing its implementation and the efforts needed for its planning. 99% believe that English is a major key to success in academia and is essential for them to advance in their doctoral studies. Some of them also stress its role in developing their professional careers.

Graphs 6 and 7 below demonstrate students' awareness of English teaching and the importance of including it within the doctoral programs.

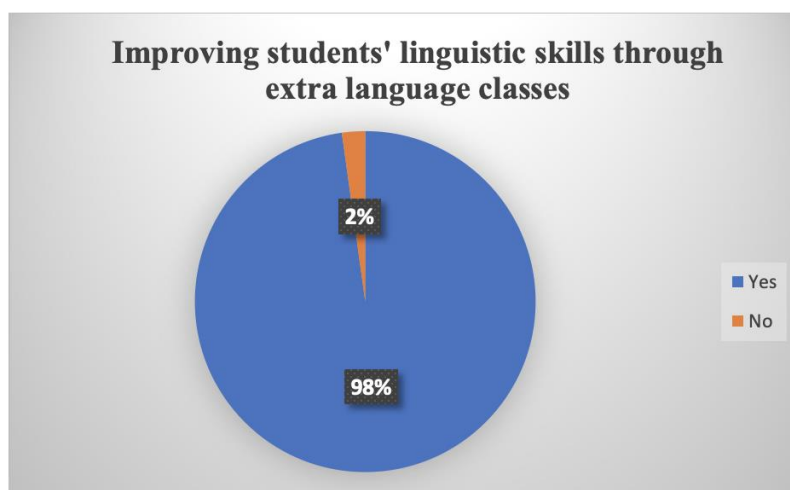


**Graph 6.** Importance of English in research



**Graph 7.** ELL in doctoral programs for research

Moroccan PhD students are in an immense need of English classes within their doctoral programs, as the mastery of this language will grant them the possibility to access international references, write articles and give presentations. We believe that if these students devoted a minimum of two hours of their free time to well-structured classes per week, they could considerably improve their basic language skills.



**Graph 8.** Improving students' linguistic skills through extra language classes in addition to regular major classes

Through the short-interviews conducted with a small sample of doctoral students at Mohammed V University – Faculty of Letters and Human Sciences in Rabat (Henceforth FLSHR), we have noticed their eagerness and motivation to learn the language sometimes even from scratch.

In fact, the FLSHR has already made a first step towards implementing the teaching of English at the postgraduate level, an initiative which was free of charge for the students and voluntary for the teachers. This pilot experiment took place during Fall 2015. Students who registered their interest in learning the language were subject to a pre-test with the aim to evaluate their levels, then were distributed accordingly. Generally, the experience was successful in terms of the readiness of the students and the availability of the teaching faculty. However, the teaching was cut short after one term due to the nature of the experiment having taken place.

The interviewed students also expressed their concerns about the lack of mastery of the language on their part. They also stated they feel pressured by the faculty and administration as they have to submit their articles and abstracts translated from Arabic or French into English. Some also expressed their frustration when attending international conferences held at the FLSHR and in which English is used as the main working language. English represents for most of them a handicap standing between linguistic achievement and academic excellence.

#### **4. Implications and suggested solutions**

Doctoral students' reaction to the abrupt decision issued by the former Minister of Higher Education is perceived as reasonable since they are put in a conflicting situation in which they have to adhere to the official decisions but are provided with no substantial support and guidance. Their reactions are legitimate given the absence of frameworks which will ensure the implementation of the decision entailing the inclusion of the English language in higher education programs.

The program of implementing this decision is not as easy as it appears since it needs a lot of efforts, planning, and resources to install it in each Moroccan university. For the time being, we believe that it is quite challenging if not impossible for the currently registered doctorate students to reach the desired level of English and, anyway, from a purely legal point of view, the new decision should not apply to them given the principle of non-retroactivity of the law. However, we can start on a solid ground for the future doctoral students by, first of all, including mandatory English language classes to all the existing majors starting from the first year of undergraduate studies. These classes should cover General English and basic language skills up to the third year, with an additional two hours ESP class in the fields of specialization in the final year. Eventually, a pre-test must be administered at the very beginning of the first year so as to place the students into the appropriate levels. When accessing the graduate level, students can then easily benefit from intensive ESP classes since they will have already covered GE language courses and introductory ESP classes during their undergraduate studies.

To make the learning and the teaching of English more effective, facilities and materials must be made available to the teaching staff. Classes should be equipped with new information technology materials and teaching resources. Textbooks, dictionaries, audio and internet, must be made available to both teachers and students for free to ensure an effective learning. In addition to that, an induction session has to be scheduled before the start of each term in order to inform the students of the regulations of the course and their incumbent responsibility. They have to be aware of the importance of this language class and how it could affect their academic achievements. This induction session will make them aware of their rights, obligations as well as the advantages they will eventually draw from the experience.

The teachers' responsibilities must also be underscored. The appointed full time teaching staff must be held responsible for their classes and teaching. Much effort should be invested in teacher training, especially at the higher education level. The teachers need to be provided

with a full time program and with the evaluation standards. It is worthy to note that these English language classes are meant to be interactive, interesting, and rich in terms of content.

Finally, the administration is to show unconditional support to the teachers and the students, and that is by providing them with the appropriate learning and teaching conditions. It should monitor both the performance of the teachers and the learning of the students via regular tests and evaluations.

Another important element is the content which has to be constantly reviewed and renewed when necessary. Monitoring and evaluation is a key element in the success of the educational systems as it helps reconsidering the teaching approaches and the content delivered to the students. If stepped out, gaps in the teaching and the learning will evolve since the teaching and learning contents are adaptable by nature and should meet the needs of both language learners and instructors.

### **Conclusion:**

All in all, the feasibility of compensating English language classes for doctoral students is requires a lot of time and resources, which are not available at the moment. The Moroccan university is still not well equipped to handle such issues, especially at the operational level in which stakeholders decide but do not debate such circulars. Their decisions are mostly arbitrary and are not founded on concrete fieldwork studies. The only effective way to implement the teaching of English in higher education is to restructure the educational system at university. Only then can we endeavor in planning the English language teaching for the postgraduate level. Implementing this decision should be done in four stages: the first stage is the research phase followed by the consultancy stage. Once the latter is completed, stakeholders should embark on the third stage which is program planning and development, then move to the last stage of the implementation.

Doctoral students' reactions to the said circular must be taken into account. Their opinions and reflections with regard to the matter are of high importance when thinking in terms of language planning. Their frustration is translated into resentment against the whole educational system since they believe that it has failed them and only complicated their academic lives. Ergo, we urge the Ministry of Education to take the discussed factors into consideration by consulting field experts and collecting the necessary data to insure what appropriate approaches to adopt and what other possible factors to take into account. Only by

framing the issue at hand can we guarantee a better quality and productivity at the Moroccan university.

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## **STEAM Learners' Attitudes towards Literacy, Translingualism and ESP in the Moroccan Higher Education**

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### **Abstract**

This study endeavors to investigate issues related to STEAM learner's literacy development (henceforth, SLLD) in terms of mother tongues (Arabic and Amazigh), French as a language of instruction (hereby, FLI) and English for Specific purposes (hereafter ESP). Actually, many learners find difficulties in attaining a good level in English literacy such as transfer from the mother tongues to French and English, and from French to English or what is known as translanguaging phenomenon. I used an online survey that contains 23 questions. The number of participants is 63 from Mohammed V University, Rabat, Sidi Mohamed Ben Abdallah University, Fes and Hassan II University, Casablanca, from STEAM fields. The results show that, first of all, a large proportion of participants agree to strongly agree about the importance of studying English as the transition from high school to higher education without studying English at the B.A level affects their research endeavors and job opportunities. Secondly, many students agree with the fact that ESP practitioners affect student's preferences about literacy in ESP, because the former, i.e. practitioners, assign students specific roles that enhance their communicative competence in favor of performative one in reading and writing. Thirdly, the majority of students agree that STEAM content in English is hard to grasp, let alone when it is translated to French. Finally, STEAM learners use Translation from L1 and French to English and vice versa as strategies to compensate for the lack of understanding of English texts.

**Keywords:** Translanguaging, Literacy, Mother Tongues, FLI, and ESP.

## I. Introduction

Over the past few decades, Morocco has developed in many fields, a fact that has affected the growth of minds and awareness about different issues and challenges. Education as part and parcel of Morocco's development has also undergone many changes recently, which have positive and negative results. In this regard, the 21<sup>st</sup> century demands impacted Morocco's developmental orientation following novel trends in education such as STEAM and English for Specific Purposes (hereafter, ESP) while other traditional attitudes are still present such as the utility of French as a Language of Instruction (henceforth, FLI) in many fields.

The use of FLI in STEAM fields brings about several challenges, especially in literacy<sup>4</sup> aspects as STEAM Learners Literacy Development (hereby, SLLD) in French is content-driven as opposed to ESP, which is taught as a subject, not a language for instruction. In this regard, SLLD in ESP is affected by FLI in content areas. Therefore, the intertwined combination of structures and skills in literacy development, in the aforementioned context, brings about several challenges for STEAM learners. The latter, as we shall see, find difficulties in attaining a good level in English literacy, which are driven by various factors such as **interference/Transfer** from the mother tongue to French or from the latter to English, which is part of a holistic phenomenon recently referred to as **translanguaging** in Second Language Acquisition (hereafter, SLA), Literacy studies and Bilingual/multilingual Education.

## II. Conceptual Framework

### 1. Translangualism and linguistic situation in Morocco.

In this section, I am dealing with brief definitions of translanguism theory as insights for the reader to get a close idea about the theory. In addition, I am addressing some brief points regarding the literature of the linguistic situation in Morocco.

#### 1.1. Translanguism

Translanguism/translanguaging is not a recent phenomenon as it finds its routes in SLA research, particularly the interlanguage hypothesis<sup>5</sup>. However, it was neglected in many studies due to the dominant monolingual stream in applied language studies, particularly SLA. William (1994) was the first researcher, who introduced the idea, though not giving

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<sup>4</sup> There are several definitions for Literacy, but my concern here is about **Functional Literacy** versus **Cognitive Literacy**, which will be well presented and discussed later on (See section 2).

<sup>5</sup> This concept finds its grounds in SLA studies, which is different from the novel term that I'm using in this study, i.e. *translanguaging*.



details about the fundamentals merits of such trend in SLA research. He stressed the idea that multilingual speakers use **language as an integrated system**, using multiple languages simultaneously. Nearly a decade later, Williams (2011) was the first one who coined the term translanguaging. In the same vein, Connor (2011, p.1) introduced translanguaging, particularly in literacy, and defines it as: “the study of written discourse between and among individuals with different cultural backgrounds”. In later years, the term translanguaging was gaining momentum among researchers. It has been introduced and used in SLA terminology. In a paper that explains the development of the term under study, Champlin (2016) states:

“the term translanguaging [to describe the act; García (2009)] and translingualism [to refer to translingual practices in society at large; Canagarajah (2013a)] have recently been adopted to recognize that such practices do not so much involve, ‘switching’ between separate systems, but instead involve drawing flexibly on resources from a single, unified languaging system, appropriate to context, interlocutor and interaction.”

According to the same reference, García (2009, p.140) defines, translanguaging as “the act performed by bilinguals of accessing different linguistic features or various modes of what are described as autonomous languages, in order to maximize communicative potential”, the definition that will be used in this article. A year before that, Pennycook (2008) states that “translingual practices ‘take us beyond the ugly and simplistic labels of **grammar translation versus communicative language teaching** that have reduced English to a language used and taught only in its own presence” (Pennycook, 2008, pp.7-30). In the context of Canagarajah (2011a), translanguaging is a form of certain practices that link different linguistic and intercultural elements and are used by communities. Likewise, according to Barton & Lee (2013, pp. 60–61) translanguaging practices refer to “the ways in which groups and communities of people experience and do things that involve more than one language” and have been observed “across different groups and communities of people rather than within a specific speech community defined primarily by the geographical locations of speakers”

Unfortunately, there is a lack of literature by Moroccans in this respect, particularly **literacy in translingual practices**. Therefore, I selected few foreign studies as conceptual and empirical standpoints that could be projected in the Moroccan perspective. To begin with, Canagarajah (2011a) explained how Literacy is viewed as a translingual practice between

communities and classrooms. Likewise, Li Wei and Ofelia Garcia (2016) talked about the significance of translanguaging in bilingualism and education<sup>6</sup>. Another important work is Champlin (2016, p.1), who conducted a study “in order to research the impact that the use of translanguaging strategies has on bilingual learners and discovered whether or not these strategies support their English language development. Data was collected during lessons taught, interviews with students and teachers, questionnaire feedback, and participation in a collegial circle.” A more recent study is Thomas (2019, p.1), who states:

“Attempts to explain transformative language learning strategies that are translingual in nature which have been found in English as a Second Language (ESL) contexts and have the potential to be applied in Foreign Language Education contexts. The use of a critical ethnographic perspective, taken in this work, recognizes the urgency of equitable treatment of students in their language acquisition, and the need for translingual competencies on a macro scale in a globalized society”

## 1.2.Linguistic Situation in Morocco

Morocco is known as the melting pot or salad bowl of languages where different languages interact with regard to their speakers; this is known as multilingualism. The languages spoken in Morocco today are **Standard Arabic, Amazigh, Moroccan Arabic, Hassani Arabic, French, Spanish and English**. Standard Arabic, Moroccan Arabic, French and English are the most spoken in all regions in Morocco. Standard Arabic is the first official language of Morocco; it is taught in schools from the primary level to high school, and taken as a field of study in higher education. (Enanji, 2005).

Concerning Amazigh, which was set as an official language of Morocco in 2012, it is spoken in three regions according to its type; **Tarifit** in the north region, **Tashalhit** in the central region of the Atlas Mountains and **Tamazight** in the south regions. Concerning Moroccan Arabic it is widely spoken across all regions of Morocco; it is the dominant language according to El Amraoui (2007). However, it is not the official language of Morocco, nor it is the language of instruction for education, from primary to high school and even higher education. Moreover, Hassani Arabic is spoken in the deep southern regions of

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<sup>6</sup> I have been particularly focusing on how learning second languages interfere with reading and writing skills, especially in ESP perspectives

Morocco, particularly in the Sahara, but it is very limited to specific tribes as it stands in their history as an icon of identity.

Considering foreign languages, **French** is the official foreign language. It is used as the langue of instruction for different fields, viz. STEAM fields, and Legal and economic studies at the level of higher education. It has also replaced **Arabization** in high schools in 2019 and became the language of instruction for scientific and economic studies. As for **Spanish**, it is used in the north regions of Morocco, viz. Tanger and Tetouane, as the second foreign language unlike **English** that is used in other Moroccan regions as the second foreign language. It should be pointed out that English is considered as a medium of research, particularly in higher education; that is why it is gaining momentum over French and Spanish.

## 2. On Literacy development: Functional, Cognitive and Critical

Several attempts have been done to define what literacy is (Harris and Hodges, 1995). Different scholars assert that defining literacy would not be agreed upon “...agreement on a definition and thus on a measurement of literacy will never be reached” (Wickert, 1992, p.30). The range of literacy definitions is typically from skills-based conception of cognitive literacy to functional definitions that integrate social and political empowerment (Lo Bianco & Freebody, 2001). There is a consensus that literacy is generally defined as “the ability to read and write”. In fact, based on this definition, some attempts were conducted to classify people who are literate and people who are illiterate. In addition, according to the **Organization for Economic Co-operation and Development** (OECD, hereafter), literacy is **defined** as follows: “Literacy is defined as the ability to understand, evaluate, use, and engage with written texts to participate in society, achieve one’s goals, and develop one’s knowledge and potential (OECD, 2013, p.59). Researchers, however, find it impossible (Elley, 1989) to do this task as “there is no precise dividing line between a person who is fully literate and one who is not” (OECD, 2013, p.17). Literacy can no longer be simply defined in terms of reading and writing nor can it be seen as an end in itself (UNESCO, 1997).

Furthermore, the rapid changes in science and technology suggest that “*people must be able to adapt continually to developments in science, technology and to the pressures of social integration, participation and democratization*” (UNESCO, 1997, p.10), which is linked, as we shall see, to functional literacy as opposed to cognitive one. In this respect, Literacy has always been **a collection of cultural and communicative practices** shared

among members of particular groups. As society and technology change, so does literacy. In this context, it should be pointed out that in this study, I shall defer between **functional cognitive and critical literacy**.

To begin with, Mead (1934) and Vygotsky (1934)<sup>7</sup> elaborated on the relationship of the **human mind and the human self to social development**, which is the aspect for “**Functional Literacy**”. Both Mead (1934) and Vygotsky (1934) argue that **self and mind arise from the social processes**. Both concur that **language** is the **primary vehicle** through which the **mind and self** emerge from the **social process**. What has been interpreted by Mead (1934) and Vygotsky (1934) on language, particularly “mind in the society” (Vygotsky, 1934) and “Symbolic interaction” (Mead, 1934) could be projected on literacy, i.e. functional literacy.<sup>8</sup> Secondly, unlike Mead (1934) and Vygotsky (1934), Piaget (1940) provided a detailed understanding of **how humans think and learn**. In this context, humans grow and develop through **change processes**. Piaget (1940) describes these processes as **adaptation**, which is part of cognitive literacy. In this vein, Piaget’s research on human development focused on the relationship of **the behavioral and physical skills** in the development of **cognition** as far as he goes for interpreting cognitive literacy. The challenge of defining and assessing the need for “**Cognitive Literacy**” emanates from **the nature of the human self; the self is a cognitive process for humans**. Finally, for critical literacy, it incepted in the late 1980’s and early 1990’s. According to Knoblauch and Brannon (1993), the “sources of critical literacy and pedagogy are to be found in an assortment of Marxist, feminist, and postmodern intellectual positions” (p. 161, as cited in Green 2001, p.7). According to Lankshear, (1994, p. 4 as cited in Green 2001, p.8) critical literacy is a “contested educational ideal” and that there is “no final orthodoxy of critical literacy”. In addition, literacy is a double-edge sword; it can limit students’ abilities or empower them. For the former, Green (2001, p.8) states:

“...within the context of the school, literacy can limit students. When textbooks are selected that portray a mainstream view of the world, and when traditional literacy practices, which often reduce literacy to copying and the completion of worksheets or assignment questions, are used, literacy is far from liberating.”

Literacy is also a way of empowering students. According to Freire and Donaldo (1987) “literacy empowers people only when it renders them active questioners of the social reality

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<sup>7</sup> It should be noted that each researcher worked separately; so there was no joint work between them both, but they agree on the same perspective as far as functional literacy goes.

<sup>8</sup> It should be pointed out that the ideas in this realm are taken from two works, Viz.. Gibson, G.D ( U,d) and Fabbrihesi, R (2018).

around them” In fact, critical literacy has dominated the literature since its inception; it has a close link with critical pedagogy and post modernism (viz. post-Methodism).

### **3. English for Specific Purposes in the Moroccan Context.**

In this section, I am dealing with ESP literature based on its definition(s) and relate it to what the Moroccan researchers brought about in this trend of ELT.

#### **3.1. Defining ESP**

ESP has become a significant trend in English Language Teaching (ELT, hereafter) in different respects. Initially, between the 1950's and 1970's, research began with observing students' attitudes towards the traditional ELT practices, more precisely General English (GE, hereafter). As advocated by Mc Donough (1984:4) “all learners were served up with literature regardless of their aims, needs or interests”; learners, therefore, were dissatisfied with such practices. To achieve better results, ESP or what Strevens (1977) labeled “*Functional English*”, has replaced GE. In fact, the transition of forms of knowledge, technologies, and means of interacting allow for ESP to be taught and maintained as an extension of GE. ESP, however, is different from one country to another depending on the types of skills, needs, and knowledge growth, which ESP courses are built upon. ESP has been examined in different ways; many scholars tried to find out a comprehensive definition that covers all aspects of this new trend of ELT. Strevens (1977, P. 25), for instance, argued that ESP courses are based on “the analysis of participants' needs as a key and crucial element.” In the same vein, Mackay and Mountford (1978:2) defined ESP as the teaching of English for a “clearly utilitarian purpose” which is defined by learners' needs. The authors consider ESP as “the special language that takes place in a particular setting by particular participants”. Considering a broader definition, yet most adhered by other scholars, Hutchinson and Waters (1987:19) postulate that “ESP is an approach to language teaching in which all decisions as content and method are based on the learners’ reason for learning”. Taken the foregoing together, three elements concerning what ESP is are signaled:

(1) *Nature of the **language** to be taught.*

(2) *Nature of **learners**.*

(3) *Nature of the **setting**, in which learning takes place.*

These aspects of ESP form a comprehensive definition of ESP: *An approach to the teaching of specific English to specific learners in a particular setting in order as to achieve a utilitarian purpose.*

### 3.2.ESP in Morocco

ESP literature in Morocco has not been enriched a lot, in the end of the 20<sup>th</sup> century, because of the novelty of the topic. However, there are important studies to look at differentiating between two generations of ESP researchers. Still, before introducing these generations, some foreign researchers introduced the aspects of ESP in the Moroccan context such as Hyde (1993), who argued for the relevance of English in the Moroccan culture and discussed the division between GE and ESP. He also pointed to the previous study in the MATE conference as he declared “A salient comment made at the 1991 MATE conference was: Let us use English for our specific purposes, and not let English use us for its specific purposes.” (Hyde 1993, p. 296). Following such attempts to introduce ESP, the first generation, which contains the pioneers, was incepted two decades ago with the works of Ouakrime (1997) and Zaki (1997) in the proceedings of the 17<sup>th</sup> MATE Annual Conference. Both researchers raise the awareness of the importance of ESP in the Moroccan ELT practicum and pointed to few challenges and issues that should be targeted in the future concerning the nature of ESP and the methodology used to tackle it. Two years later, also in the MATE conference, Ennaji, (1999) compared the aspects of ESP in both private and public sectors; he focused on how practitioners should think of what this novel trend brought about in ELT realm. Likewise, Abouabdelkader, (2000) also dealt with ESP in the Moroccan ELT scene sharing new insights about the issues and some tentative framework that should be used, especially related to needs analysis. From the foregoing, it should be pointed that the MATE Annual Conference was an important setting that elapsed studies and consideration in ESP.

A decade later, another generation initiated important studies in the field of ESP like Bouzidi (2009), who talked about bridging the Gap between ESP and the workplace; Bachiri (2011), who dealt with English for Occupational Purposes, particularly English in Business, and Basri (2013) who revealed the challenges both ESP learners and teachers encounter during learning/teaching specific content and specific vocabulary of English for Legal studies<sup>9</sup>. Another study is Larouz and Kerouad (2015), who focused on the difference

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<sup>9</sup> It should be pointed that all these studies chose a specific part of ESP and dealt with it individually, ort separate from the general dimension if what ESP is, like English for Business and English for legal studies.

between the methodology used in EGP and ESP. Later Benahnia (2016), discussed the aspects of writing in ESP contexts for Arab learners, including Moroccans. He used a **sociocultural approach** to reach his objective of enlightening “educators and language program managers and planners about the mechanism of the writing process while incorporating the cultural components relevant to the learner, as well as drawing their attention to the benefits of engaging students in the actual process of writing and boosting their motivation.” (Benahnia 2016, p. 267). In the same year, Naciri (2016) investigated the impact of multimodal texts on ESP learners’ reading comprehension. A year later, El Mellouki (2017) tackled some conceptual frameworks related to reading in ESP contexts. Likewise Abdalloui Maan (2019) dealt with the same perspective bringing about few new insights<sup>10</sup>. Within the same year, few other studies have covered issue related to ESP, viz. Koumachi (2019), Akhajam (2019) and Ait Hattani (2019).

### **Concluding Remarks**

All in all, in the previous sections I have tried to introduce several key concepts related to this study. I presented first what previous studies have brought in the realm of the study under scrutiny, either in the Moroccan context or foreign research paradigms. I also tried to give the reader a close idea about the key theories and thematic feature related to this study, i.e. Translanguaging, Literacy, and ESP. In what follows, I shall give a detailed analysis of empirical data in the context of the topic under investigation.

## **III. The Empirical study**

### **1. Research Objective**

This study endeavors to understand the impact of using translanguaging on STEAM bilingual/multilingual learners’ literacy development in the context of FLI and ESP, and find out the differences and issues that occur in their literacy skills shifting from their L1 to French, and from the latter to English. It seeks also to investigate STEAM learner’s literacy strategies that are used when converting from their mother tongues (Arabic and Amazigh) to French on the one hand, and from the latter to English on the other. Finally, it attempts to measure the role of STEAM professors and ESP practitioners (hereafter, ESPP) in orienting learners’ attitudes towards literacy in French and English.

### **2. Research Questions**

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<sup>10</sup> It should be noted that aforementioned studies dealt with literacy in ESP contexts.

In order to achieve the purpose of this study, these questions are addressed:

1. What are the impacts of FLI on SLLD?
2. What are the possible linguacultural strategies or translingual/cultural input that impact SLLD when learning ESP or studying content in French?
3. What strategies do STEAM learners adopt from French to develop good literacy skills in English?
4. What strategies do STEAM learners adopt from their L1 to develop good literacy skills in French and English?

### **3. Data Collection Method**

To collect the attitudes of some STEAM Learners about Literacy in FLI and ESP context, I used an online survey that contains 23 questions, two of which are about educational background and gender, while the rest represent statements about factors concerning the following points that are based on the research questions:

1. The importance of ESP in STEAM fields and its impact on research and job opportunities.
2. The impact of STEAM Professors and ESPP on learners' attitudes about literacy in the context of mother tongues, FLI and ESP.
3. STEAM learners' literacy difficulties in the context of FLI and ESP.
4. STEAM learners' literacy strategies shifting from L1 (mother tongues: Amazigh and Arabic) to L2 (French and English).

Now, I shall present the results of the survey, in the following section, with an analysis that could be used later as a background for a forthcoming doctoral thesis I am working on. To begin with, the number of participants is 63 from both Mohamed V University-Rabat, Hassan II University-Casa blanca and Sidi Mohamed Ben Abdallah University-Fes. The participants are stratified as 31 females and 32 males for gender while there are 27 students from B.A level, 21 students from the M.A and 15 others from doctoral programs divided by educational background.

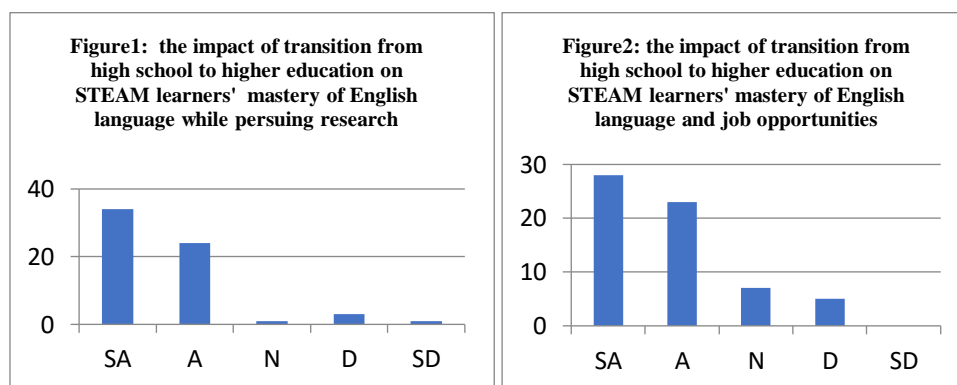
### **4. Analysis and Findings of Results**

This section is divided into four main subsections about the results and findings of the survey. As for the statements, they are categorized in 5 viewpoints: **Agree (A), Strongly Agree (SA), Neutral (N), Disagree (D), and Strongly Disagree (SD).**

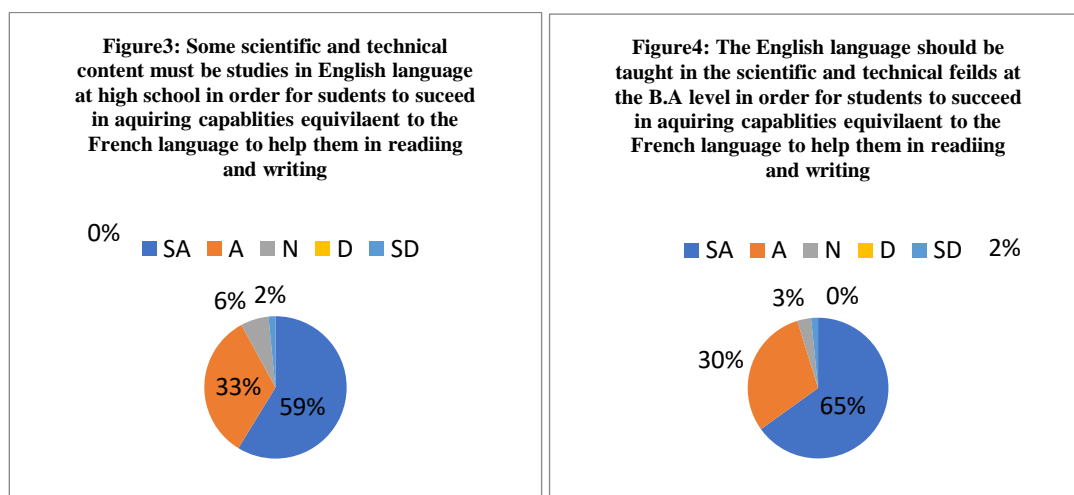


#### 4.1. The importance of ESP in STEAM fields and its impact on research and job opportunities.

In this category, I will focus on questions 7/8/22/23. For the first two questions, it is clear that many students reflect positive opinions about the role of English in STEAM fields, particularly its impact on their job opportunities and research aspirations. Figure 1 and 2 represent these values as follows:



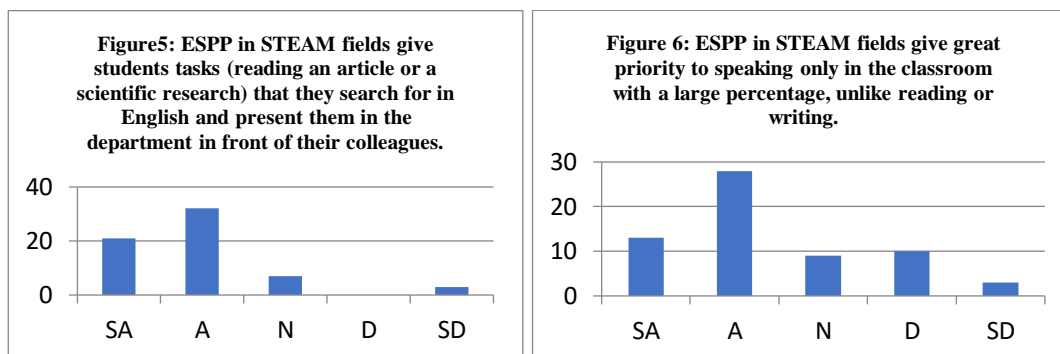
It is clear that a large proportion of participants agree to strongly agree about the importance of studying English as the transition from high school to higher education without studying English at the B.A level affects their **research endeavors and job opportunities**. As for question 22 and 23, they represent participants' views, which are mostly positive, about the need to teach English in STEAM fields at an earlier stage of their studies, either the baccalaureate or the B.A level. Figure 3 and 4 exhibit solid results about these opinions.



#### 4.2.The impact of STEAM Professors and ESP practitioners on learners' attitudes about literacy in the context of mother tongues, FLI and ESP.

In this category, I will focus on questions 3/4/5/6/20. First of all, questions 3, 4, and 20 represent statements about the role of ESP Practitioners (ESPP, henceforth) in orienting

students' attitudes about literacy. On the one hand, as seen in figure 5 and 6, it is clear that many students agree with the fact that ESPP affect student's preferences about literacy in ESP, because the former, i.e. practitioners, assign students specific roles that enhance their **Communicative Competence** in favor of reading and writing or **Perfomative Competence** in the context of translanguaging.



On the other hand, as shown in figure 7, some ESPP find difficulties communicating with STEAM learners as they latter are familiar with their mother tongues or French, which push the ESPP to use these languages as ways to **summarize the content** of what they deliver.

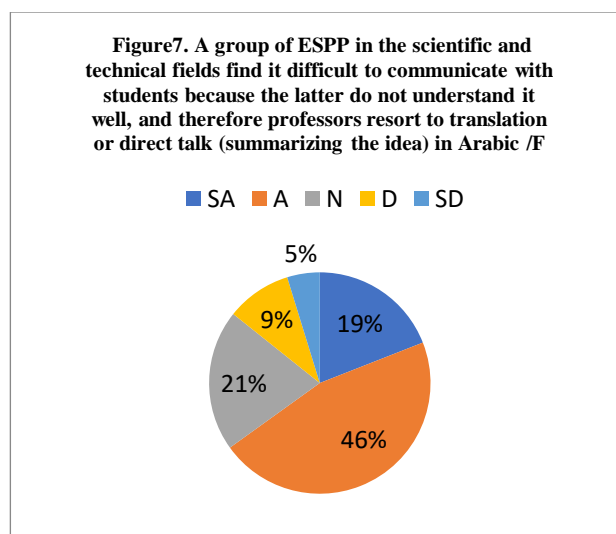
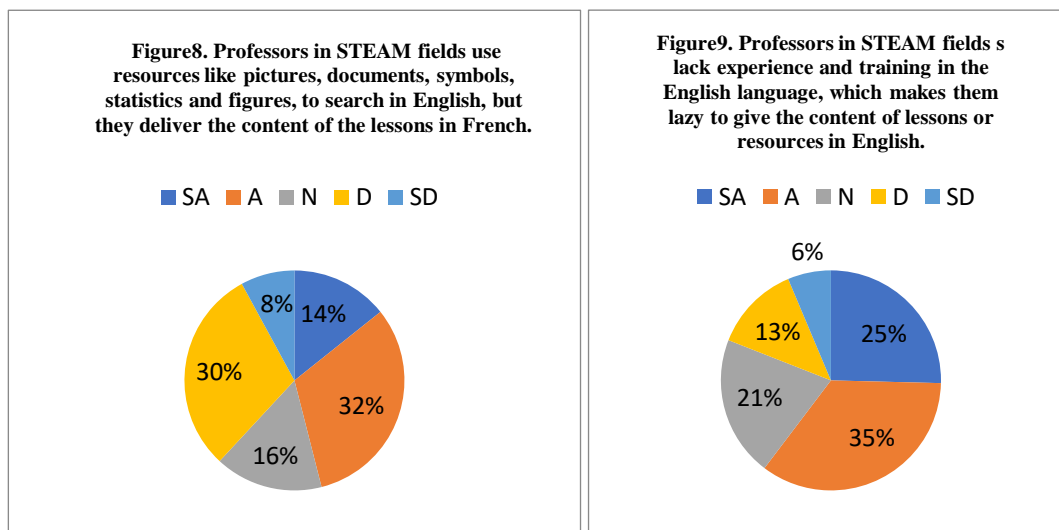


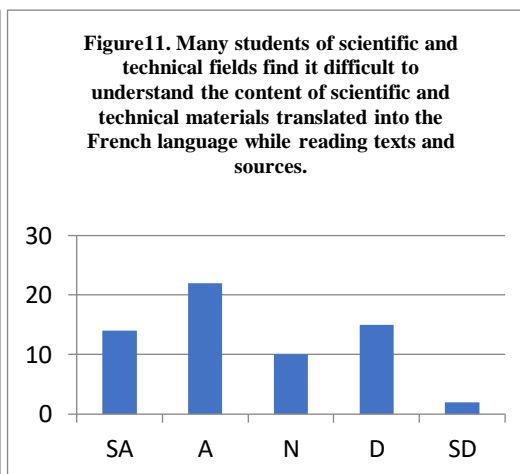
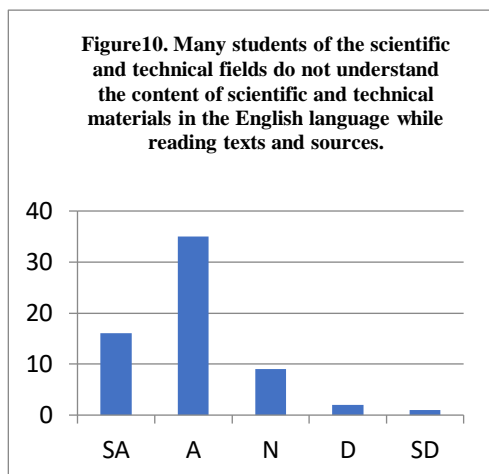
Figure 8 below shows that students' views differ between agreeing and disagreeing about how STEAM professors use English to search for content, but deliver it in French, because of the nature of the field. In as much the same regard, figure 9 represents the views of students, which vary between agreeing and disagreeing, concerning the lack of training in English, for STEAM professors, preventing them to deliver the content in English.



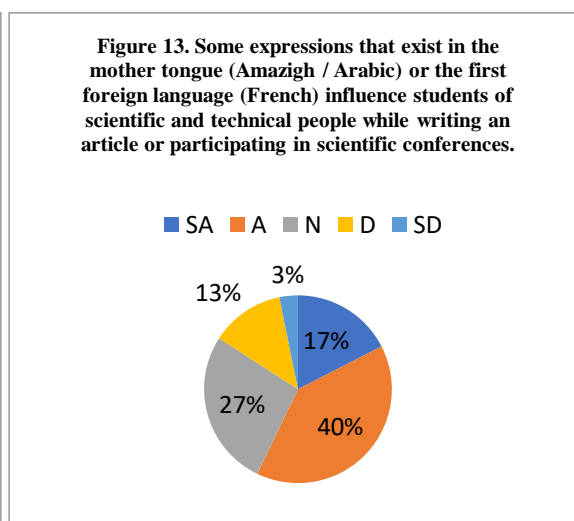
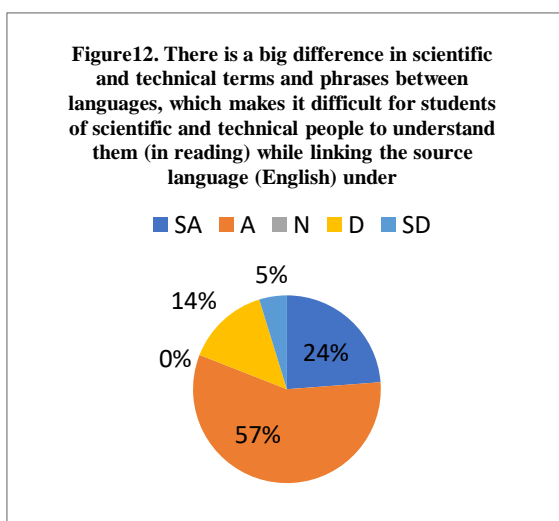
#### 4.3. STEAM learners' literacy difficulties in the context of FLI and ESP

In this category, I will focus on questions 3/4/7/8/9//10/11/12/13/14/18/19. First of all, questions 7 and 8 represent statements about **educational factors** related to the transition from high school to higher education. (See figure 1 and 2 exhibited previously in P6).

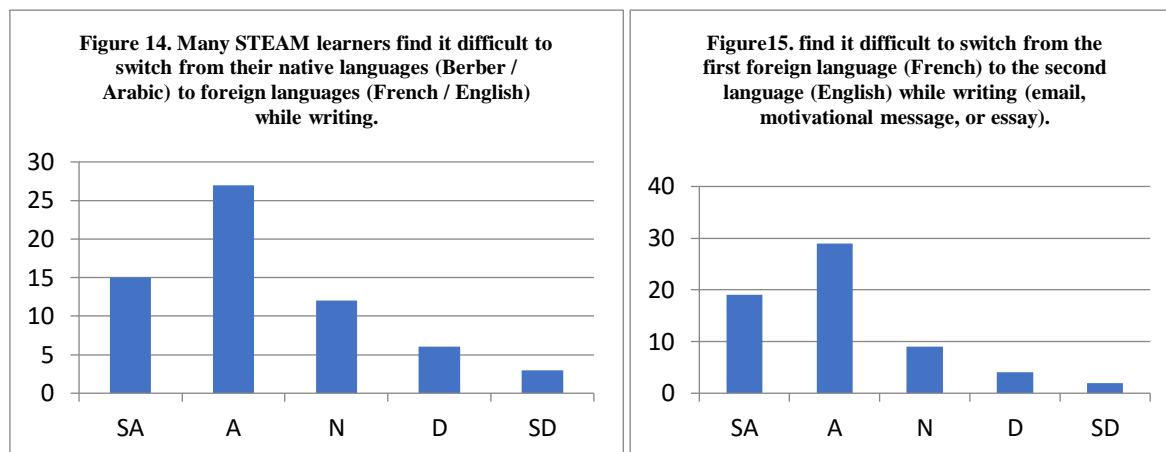
Concerning other factors, they are **Learner-Language oriented**. On the one hand, questions 9 and 10 represent issues related to the use of lack of understanding of original texts (in English) or translated versions (in French). As seen in figure 10 and 11 it is clear that the majority of students agree that STEAM content in English is hard to grasp, let alone when is translated to French. Few other students vary their perceptions between neutral to simply disagreeing with the statement as shown in figure 11 unlike figure 10.



On the other hand, questions 11 and 14 show issues related to the **differences between L1 and L2 either grammatical or lexical aspects**. As illustrated in figure 12 and 13, the majority of students express their concern about the difficulties that lie in the difference among first and second languages.

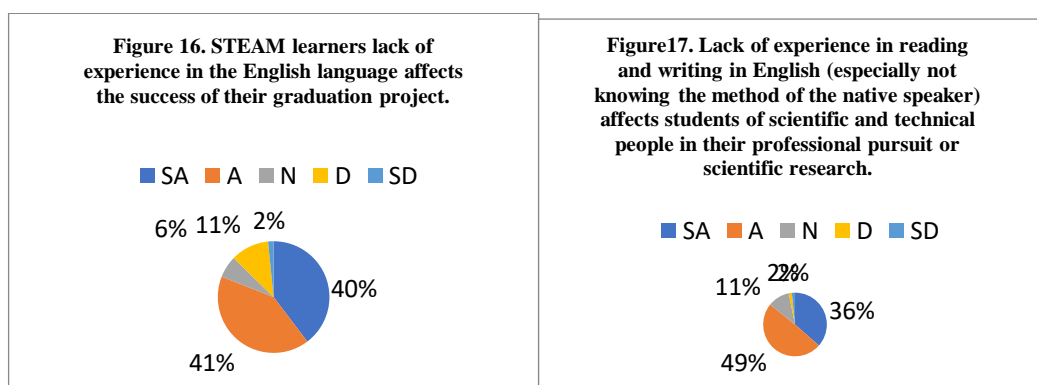


While transitions from L1 to L2 infer also important affective factors in STEAM learners' literacy development (question 12 as exhibited in figure 14) let alone within L2: From French to English (question 13 represented in figure 15).



In addition, there are factors that are driven by **the nature of EPPP's teaching methods**. In fact, results from questions 3 and 4 (See **figure 5 and 6 exhibited earlier in p 7**) reveal that several students confirm that ESPP put focus on communication rather than literacy practices either as homework or in classroom reality.

Finally, question 18 and 19 reflect lack of proficiency or experience in English, which impacts STEAM learners' aspirations in research and job market that is as important as the aforementioned factors. Figure 16 and 17 exhibits results of students' views about this aspect.

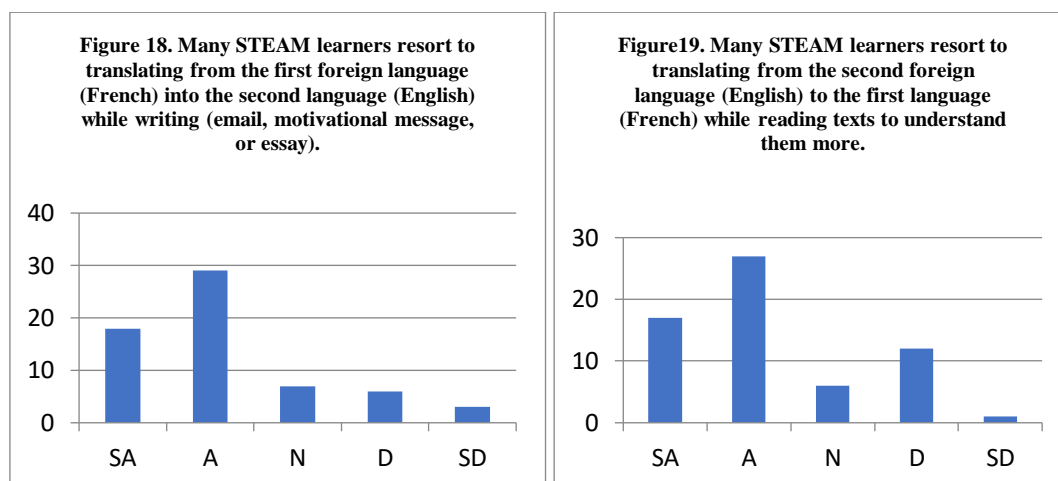


As seen in the previous charts, the majority of students agree to strongly agree with the fact that the lack of experience in English affects their research and job opportunities; the same aspect is regarded to literacy in English. These factors are **learner-languages based**, which impedes students success in English as a language and literacy in this target language.

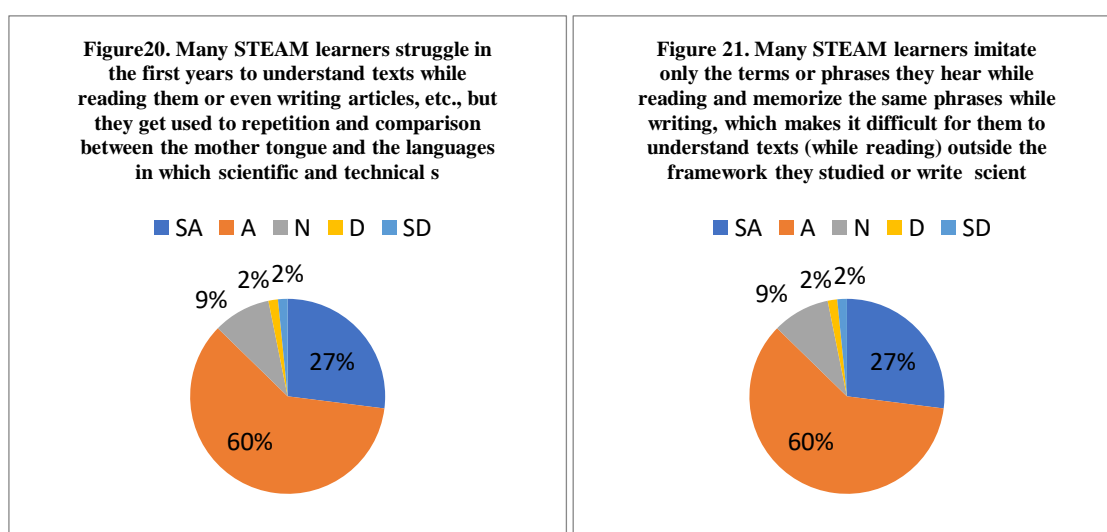
#### 4.4. STEAM learners' literacy strategies shifting from L1 (mother tongues: Amazigh and Arabic) to L2 (French and English).

In this category, I will focus on questions 15/16/17/21. First of all, questions 15 and 16, as exhibited in figures 18 and 19, represent that **STEAM learners' use Translation from L1**

**and French to English and vice versa** as strategies to compensate for the lack of understanding of English texts. In this regard, the majority of participants agree to strongly agree with the given strategies as effective ways to achieve better results in reading comprehension and writing. However, there are few participants who disagree with the fact that translation is a strategy to make up for the lack of understanding of texts in English.



In addition, questions 17 and 21, as presented in figure 20 and 21, they show that **repetition and comparison between L1 and L2 contexts** helps STEAM learners to compensate for the lack of their English proficiency. **Imitation and memorization** are also effective strategies used by the same learners to achieve better results in reading comprehension and writing. The majority of participants agree with the aforementioned factors toward achieving better results in English.



#### Findings of the Analysis:

All in all, in this section, I tried to give the reader a close idea about the potential aspects of the topic under scrutiny, which support the objective of the study and will be a guideline to the future empirical research processes, which are related to the conceptual framework that I used before (**see section I**). The findings of the analysis are presented as follows:

1. The transition from high school to higher education without studying English at the B.A level affects **STEAM learners' research endeavors and job opportunities**.
2. The role of ESPP in orienting students' attitudes about literacy is apparent because the practitioners assign students specific roles that enhance their **Communicative Competence** in favor of reading and writing or **Performative Competence** in the context of **translanguaging**.
3. **The nature of EPPP's teaching methods affect students' attitudes about literacy in French and English** since the ESPP use mother tongue languages like Moroccan Arabic sometimes as ways to **summarize the content** of what they deliver.
4. There are also **educational factors** related to policy makers, particularly the transition from high school to higher education that impedes students' success in English as opposed to French.
5. There are also **Learner-Language oriented factors, viz. differences between L1 and L2 either grammatical or lexical aspects**, which affect how students master English as opposed to French or Arabic.
6. **STEAM learners use Translation from L1 and French to English and vice versa** as strategies to compensate for the lack of understanding of English texts
7. **STEAM learners also use repetition and comparison between L1 and L2 contexts to help them** compensate for the lack of their English proficiency.
8. **Imitation and memorization** are also effective strategies used by STEAM learners to achieve better results in English as a way to balance with French or Arabic.

### **III. Implications**

The current study reveals ample entries to future research and implications regarding Translangualism in the context of mother tongues, FLI and ESP. It has also important points that should be taken into account as follows:

1. **Linguistic competence** can no longer be seen or analyzed **monolingually**; each learner's linguistic resources are seen to incorporate "English" as they learn. Therefore we shall have "**different Englishes**" as regard to the nature of learners and their regional orientations. In this respect, **Performative Competence** should replace **Communicative Competence**.
2. **Translanguaging** within **bilingual education** is both **learning practice** and **learning outcome**.
3. **Functional Literacy** has to be implemented in the teaching processes unlike the **cognitive literacy**, which dominated the literacy development scene for a long time.



## **Conclusion:**

This study endeavors to investigate issues related to SLLD in terms of mother tongues (Arabic and Amazigh), FLI and ESP. Actually, as has been explained, many learners find difficulties in attaining a good level in English literacy because of transfer from the mother tongues to French and English, and from French to English or what is known as translanguaging phenomenon. I explained these points in the conceptual framework, viz. Translanguaging, Literacy development and ESP.

Concerning the empirical study, it shows that in STEAM fields, first of all, a large proportion of participants agree to strongly agree about the importance of studying English as the transition from high school to higher education without studying English at the B.A level affects their research endeavors and job opportunities. Secondly, many students agree with the fact that ESP practitioners affect student's attitudes about literacy in ESP, because the former, i.e. practitioners, assign students specific roles that enhance their Communicative Competence in favor of reading and writing, or what has been explained as Performative competence. Thirdly, the majority of students agree that STEAM content in English is hard to grasp, let alone when it is translated to French. Finally, STEAM learners use Translation from L1 and French to English and vice versa as strategies to compensate for the lack of understanding of English texts.

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## Appendix

1. What is your gender?

- a. Male                      b. Female**

2. What is your academic level?

- a. B.A                      b. M.A                      c. Ph.D**

3. English language professors / teachers in the scientific and technical divisions give students tasks (reading an article or a scientific research) that they search for in English and present them in the department in front of their colleagues.

- a. Strongly agree    b. Agree                      c. Disagree                      D. Strongly disagree**

4. Professors / teachers of the English language in the scientific and technical divisions give great priority to speaking only in the classroom with a large percentage, unlike reading or writing.

- a. Strongly agree    b. Agree                      c. Disagree                      D. Strongly disagree**

5. Professors / teachers of scientific and technical subjects use resources (pictures, documents, symbols, statistics and figures) to search in English, but they deliver the content of the lessons in French.

- a. Strongly agree    b. Agree                      c. Disagree                      D. Strongly disagree**

6. The scientific and technical professors / teachers lack experience and training in the English language, which makes them lazy to give the content of lessons or resources in English.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

7. The transition from secondary to higher education and the interruption of learning the English language in the undergraduate course affects students of scientific and technical divisions in scientific research while pursuing a master's or doctorate.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

8. The transition from high school to higher education and the interruption of learning the English language in the undergraduate course affects the scientific and technical people's students in the job market opportunities.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

9. Many students of the scientific and technical fields do not understand the content of scientific and technical materials in the English language while reading texts and sources.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

10. Many students of scientific and technical fields find it difficult to understand the content of scientific and technical materials translated into the French language while reading texts and sources.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

11. There is a big difference in scientific and technical terms and phrases between languages, which makes it difficult for students of scientific and technical people to understand them (in reading) while linking the source language (English) or the languages to which it was translated (Arabic / French).

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

12. Many students of scientific and technical people find it difficult to switch from their native languages (Berber / Arabic) to foreign languages (French / English) while writing.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

13. Many students of scientific and technical subjects find it difficult to switch from the first foreign language (French) to the second language (English) while writing (email, motivational message, or essay).

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

14. Some expressions that exist in the mother tongue (Amazigh / Arabic) or the first foreign language (French) influence students of scientific and technical people while writing an article or participating in scientific conferences.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

15. Many students of scientific and technical people resort to translating from the first foreign language (French) into the second language (English) while writing (email, motivational message, or essay).

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

16. Many students of scientific and technical people resort to translating from the second foreign language (English) to the first language (French) while reading texts to understand them more.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

17. Many students of scientific and technical subjects struggle in the first years to understand texts while reading them or even writing articles, etc., but they get used to repetition and comparison between the mother tongue and the languages in which scientific and technical subjects are taught (French) and the same thing from the latter to the English language.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

18. The students' scientific and technical lack of experience in the English language affects the success of their graduation project.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

19. Lack of experience in reading and writing in English (especially not knowing the method of the native speaker) affects students of scientific and technical people in their professional pursuit or scientific research.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

20. A group of English language professors / teachers in the scientific and technical divisions find it difficult to communicate with students because the latter do not understand it well, and therefore professors resort to translation or direct talk (summarizing the idea) in Arabic / French.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

21. Students of scientific and technical subjects imitate only the terms or phrases they hear while reading and memorize the same phrases while writing, which makes it difficult for them to understand texts (while reading) outside the framework they studied or write scientific articles or research papers for graduation.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

22. Some scientific and technical contents must be taught in English at the secondary qualifying level in order for students to succeed in acquiring capabilities equivalent to the French language to help them in reading and writing.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**

23. The English language must be studied in the scientific and technical divisions at the BA level in order for students to succeed in acquiring capabilities equivalent to the French language to help them in reading and writing.

**a. Strongly agree   b. Agree   c. Disagree   D. Strongly disagree**



# **ESL Teachers' Self-management and National Language Policy: Self-directed Learning Experience during COVID 19 in Morocco**

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## **Abstract**

The new line of research in language policy and planning acknowledges the importance of decentralized decisions in language policy. There is a widespread dissatisfaction of the top-down approach adopted by central governments and it is time to redirect the wheels. The purpose of this paper is to investigate ESL teachers' readiness in sustaining a self-directed learning language policy using Guglielmino readiness scale. The latter is a tool for measuring the existence of attitudes, character traits and abilities. The reliability of the scale is estimated at .94 (Guglielmino, 1989) 64 ESL teachers in secondary schools at the directorate of Chichaoua, Morocco, were asked to respond to an online questionnaire. Triangulation is used in order to check data's validity before reaching conclusions. The quantitative results retrieved from the questionnaire are supported by a qualitative content analysis of a group interview. The findings of this preliminary study indicate that teachers of English in the directorate of Chichaoua show a high degree of readiness to sustain language policy creation.

**Keywords:** language policy, self-management, local agents, COVID 19, language management, Guglielmino readiness scale.

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## ***Introduction***

Early language policy and planning adopted an ahistorical philosophy where language planners chained ideas into one line of thought: if economic planning is possible then language planning should not be different. Experience showed a sobering picture. Most traditional language planning efforts resulted in conflict and resistance. According to Tollefson, classical language policy and planning “acknowledges that policies often create and sustain various forms of social inequality, and that policy-makers usually promote the interests of dominant social groups” (Tollefson 2006: 42). Therefore, speech communities resisted the imposed language policies and developed decentralized interpretations. To mediate between policy makers and local agents (in this paper ESL teachers), language management theory promises a collaborative framework. Using Guglielmino’s self-directed learning readiness scale, we will consider the following:

- 1- How ESL teachers in Morocco translated ministry’s circular (39/20 ) about self-directed learning policy during COVID 19?
- 2- In what way can language management model improve synchrony between language policy and local practices?

## ***Research model***

To examine the role of local agents in producing effective language policies, we will use language management model. Spolsky’s use of the term ‘management’ instead of ‘planning’ marks a turn in LPP. Language planning is associated with post-modernist and newly independent states especially in Africa in an attempt to create a post-colonial linguistic identity. It was administered by central governments and aimed at standardized, monolingual societies. For example, Morocco declared ‘Arabization’ right after independence to avoid the curse of bilingualism and build a unified national identity. Management model adopts a critical approach to language planning. It advocates the centrality of microscopic practices over macro-level language policies. In language management model, Spolsky identifies four main variables: language beliefs and ideology, language practices, management and self-management.

## ***Method:***

In an attempt to assess teachers' readiness to participate in the creation of a self- directed learning language policy we will use Guglielmino's scale. It is a tool for measuring the existence of attitudes, character traits and abilities. The reliability of the scale is estimated

at .94 (Guglielmino, 1989). 64 ESL teachers in secondary schools at the directorate of Chichaoua, Morocco, were asked to respond to an online questionnaire. 46 teachers responded representing a 76% response rate. Triangulation is used in order to check data's validity before reaching conclusions. The quantitative results retrieved from the questionnaire are supported by a qualitative content analysis of a group interview. The participants in this study were asked to provide the following information about themselves in an anonymous, self-report questionnaire: sex, age, level of education, level of independence at workplace, feeling about ministry's support. Data was transcribed and coded using Nvivo according to the four variables of language management theory; namely, ideology, practices, self-management and management.

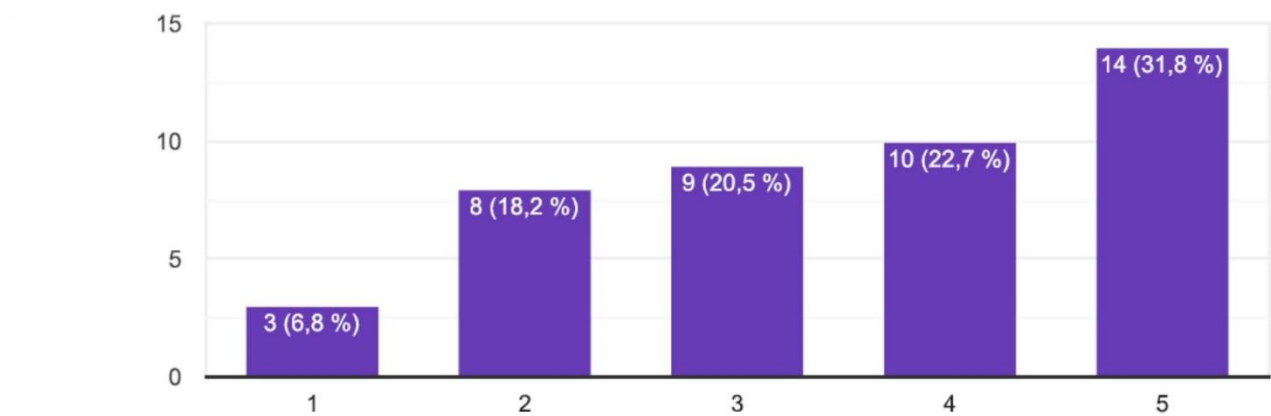
## ***Results***

### ***1- Language beliefs and ideology***

Beliefs and ideology related to a particular language or variety rely on their importance in a speech community. Some languages promise a better access to economic and social growth. likewise, In Morocco, policy makers implicitly acknowledge the importance of English, but French remains a de facto language. Respectively, teachers of English believe in their role as agents of change. They understand and benefit from the extrinsic motivation that surrounds English language acquisition. The questionnaire surveyed ESL teachers' belief about their readiness to stimulate change in language policy.

*Figure 01: Teachers' readiness to participate in language policy during COVID 19 in Morocco.*

Years of experience



In figure 01 above, teachers were asked to rate their confidence in influencing language policy during COVID 19 on a five-points Likert scale of 1 to 5 (Not ready Vs very ready). Over 50% of respondents believe they can effectively contribute to language policy design

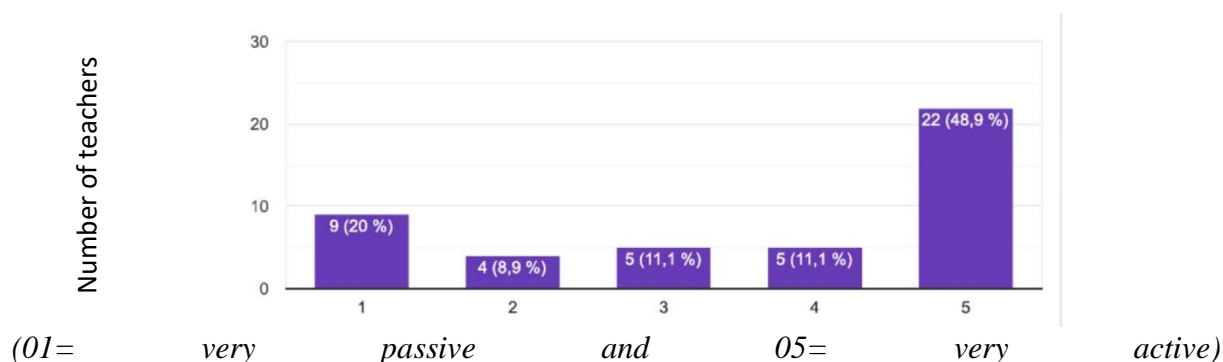
during COVID 19. With a mean of 8.8. An analysis of individual answers showed that the majority of the respondents were junior teachers. One might contemplate that novice teachers with less than five years of experience are more resistant to central policies. Consonant to teachers' beliefs in their role as local policy makers, it is necessary to question teachers' self-directed learning practices before turning a skeptical eye on their ability to create a langue policy.

## 2- Language Practices

Spolsky (2009) posits that “Language practices are the observable behaviors and choices – what people actually do” (p.04). In this regard, we will examine teachers' self-directed learning skills and practices. The aim is not a mere analysis of causality but a sociolinguistic study of teachers'-students dynamics. First, the term self-directed learning covers a broad spectrum of meanings, for example: autonomous, independent and free learning. In his report published by the Council of Europe in 1979, Holec defined learner autonomy as “the ability to take charge of one's own learning” (1981, p. 3). This definition congregates the concept of independence, autonomy and freedom. In fact, learners' autonomy lies in their ability to make choices on their own (learn online, focus on reading, practice listening, etc.). Knowles M. explained these principled choices as follows:

In its broadest meaning, “self-directed learning” describes a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (1975, p. 18)

*Figure 02: Teachers' self-directed practices*



From the above argument, we understand that self-directed learning never occurs in a vacuum, it usually requires external factors whether human such as mentors, teachers, an advanced peer or logistical: computer-based learning, curriculum, MOOCs, etc. As mentioned before, the development of students self-directed learning will depend largely on teachers' own autonomy.

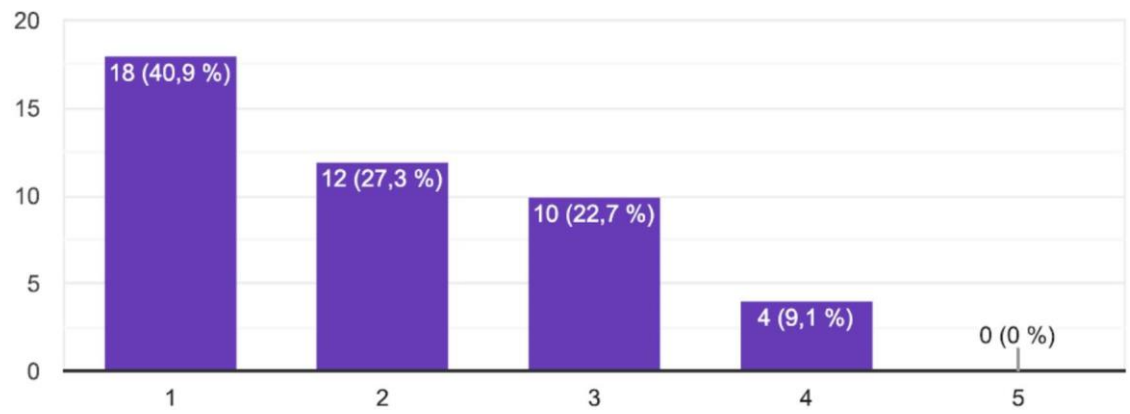
Almost 60% of the respondents confirmed the use of online platforms for professional development. The answer with the highest mode (05) was about teachers self-training in exploring online teaching platforms during the pandemic, e.g.: zoom, teams, google classroom, etc.

### ***3- Language management***

Agency is a key construct in language management. Policy makers, teachers, writers, etc. are authorities that decide about language choice. Management refers to language choices in multilingual societies where the decision is an outcome of collaboration between central policy and local practices. In a recent article, Spolsky distinguishes between two categories of agents in management: managers with power and advocates without power (Spolsky, 2018, p.01). The purpose of this study is to examine the role of ESL teachers as managers with power in advocating self-directed learning. Our concern is to define teachers' role in regard with a national language policy of English language learning. Teachers need to act as mediators between educational authorities and students. But the figure below shows a sobering picture:

*Figure 03: Teachers reflection on the ministry of education's support.*

Number of teachers



*(01= unsupportive and 05= supportive).*



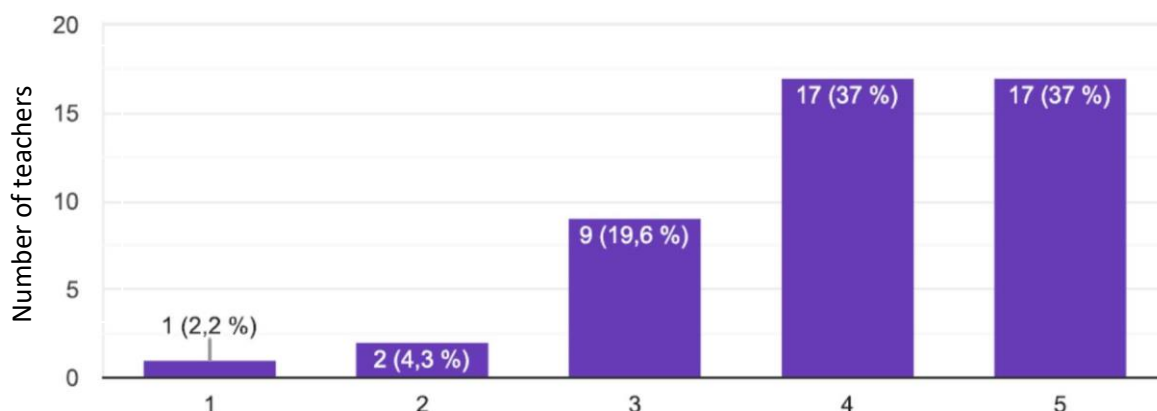
Communication between educational bodies and teachers is not exemplary and COVID 19 deepened the void. Less than 5% of respondents felt some kind of support from educational authorities. On the interview, teachers debated the need for an effective communication between policy makers and local agents. They argued that in times of change such as a pandemic, central government should delegate some of its powers to local agents. However, the ability of local authorities in self-managing the crisis is subject to scrutiny.

#### ***4- Self-management***

This paper considers self-management a significant factor in English language acquisition.

Spolsky defined self-management as “attempts to expand personal repertoires to enhance communication and employability” (2018, p.04). Self-management in this study and self-directed learning are two sides of the same coin.

*Figure 04: Teachers self-directed learning belief*



*(01= not really autonomous and 05= very autonomous)*

The data shows that 74% of teachers believe in their self-reliance. During the interview, teachers argued that this fact is justified by two major motives: the need to grow professionally and their linguistic proficiency. As university students, teachers believed that learning choices and routes should be made at an individual level. Learning in higher education is a reflection of natural development. As we grow, our autonomy and independence grow. The respondents expressed their belief that self-directed learning is a remarkable feature of professional development. Besides, language is another encouraging

factor. Being able to use a global language such as English eased access to a rich resource of knowledge. The majority of teachers attended live webinars, conferences and trainings online

during the pandemic and compiled an array of certificates from leading institutions. The common concern was how to pass down the power of self-directed learning to young students.

### ***Discussion of results:***

The findings of this preliminary study indicate that according to Guglielmino scale, teachers of English in the directorate of Chichaoua show a high degree of readiness to sustain language policy creation. Ricento and Hornberger argued that, ‘rather than accept this broad goal, ESL teachers may, for example, opt for a participatory approach that centers on students’ rather than society’s needs’ (1996, p.421). The data portrayed ESL teachers in the directorate of Chichaoua as self-reliant and a primary source of support for students. More surprisingly, the results show that novice teachers (from 01 to 05 years of experience) are more susceptible to resist central policies and express vivid readiness to sustain a local language policy.

### ***Conclusion:***

The primary purpose of this study was to investigate ESL teachers’ readiness for sustaining a self-directed learning policy using Guglielmino’s scale. Although the fieldwork involved mixed methods, we could not generalize the findings. A primary finding of this research was that young teachers (with less than five years of experience) show a greater readiness for contributing to the creation of a language policy that advocates self-directed learning in an ESL classroom. Further research on the use of Guglielmino self-directed learning readiness scale (SDLRS) involving young ESL teachers will be of great value.

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# **A Closer Look at Moroccan EFL learners' Use of Language Learning Strategies from a Qualitative Perspective**

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**ABSTRACT:** This paper explores from a qualitative perspective the use of language learning strategies by Moroccan university EFL science students. Actually, it is part of a larger mixed method design research; however, the focus in this paper is just on the qualitative part so that a deep analysis of the informants' introspections on their language learning process is provided. The aim of this study is to delve deeply in students' use of language learning strategies and their motivation for learning English and how it relates to their strategy use. To collect data, 60 university students randomly drawn from six science majors participated in a semi-structured interview which focused on their motivation and their use of language learning strategies to learn English. Then, the interviews were first categorized in themes and quantified to have a clear picture of the informants' use of the different language learning strategies and the different types of their motivation to learn English, and second these themes were analyzed using the content analysis method. The results demonstrate that students use a variety of language learning strategies in different degrees and they exhibit different types of motivation to learn English. This study yields a number of implications both for pedagogical purposes and for further research.

**Key words:** language learning strategies, Moroccan EFL context, Moroccan EFL learners, motivation, semi-structured interview.

## **Introduction**

Research on language learning strategies (henceforth LLSs) started to flourish with the emergence of the notion of “the good language learner” developed in the 1970s by Rubin (1975) and other researchers (Naiman, Frohlich, Stern & Todesco, 1978). On the basis of this notion, researchers tried to provide lists of strategies and other features deemed essential for good L2 learners. These strategies were further classified into different types and taxonomies depending on the learning context and on different learners’ variables (age, gender, language aptitude, learning style, motivation, language proficiency...). Although many studies have been carried out in the field of language learning strategies, this area still lends itself to empirical research because LLSs remain a very conducive factor to language learning and many elements come into play when they are investigated such as the learning environment and the cultural context. Therefore, the present paper deals with the use of LLSs by Moroccan University EFL Science students in relation to their motivation from a qualitative perspective.

Before reporting the different components of the qualitative study conducted to this end, the first section below is devoted to a brief review of the literature related to this issue.

### **I. Literature review**

The field of language learning strategies is anchored in different learning theories which form a theoretical framework within which LLSs can be studied. Those theories are the very perspectives from which each researcher examined LLSs and, hence, resulted in producing divergent definitions.

#### **1. The theoretical framework underlying language learning strategies**

In the present paper, the theoretical framework focuses on the cognitive model of learning and on the social-cognitive model of learning. The cognitive model of learning subsumes the information processing theory and schema theory:

*Information processing theory* is concerned with the thinking processes connected with learning and remembering information. These thinking processes include directing information from the short-term memory to the long-term memory. Based on the information processing theory, learning requires processing new information by organizing it, elaborating on it and linking it to prior information stored in the mind. As a matter of fact, this is the function of cognitive strategies, which is analyzing, summarizing, inferencing, predicting, etc. according to Chamot *et al.* (1999, p. 157). In this respect, as O’Malley and Chamot (1990)

state “The role of learning strategies in the acquisition of information generally can be understood by references to the information processing framework for learning” (p. 17). Therefore, information processing theory is very useful in understanding the role of learning strategies in acquiring new information.

*Schema theory* postulates that learning takes place as human beings try to organize and understand phenomena, events, life experiences and knowledge in general in the light of prior knowledge. This prior knowledge is contained in organized and meaningful structures called schemata. These schemata, according to Chamot *et al.* (1999), help learners make predictions, visualize events, draw inferences, monitor comprehension and make summaries. Actually, these are exactly the processes that learners go through while learning by using their schemata which are at the heart of learning strategies.

The cognitive model of learning, as mentioned above, emphasizes the cognitive involvement of the learner in the learning process. However, learning never takes place in isolation; instead learning occurs through interaction between individuals in a learning environment shaped by emotions, feelings and all the other affective components. Therefore, the social-cognitive theories developed by Bandura and Vigotsky can help understand learning at the socio-affective level.

*Bandura’s social-cognitive theory* posits that people learn through observing the behavior of others in a given environment and all the personal factors involved are dynamic and mutually interactive. Another important aspect of Bandura’s theory is personal motivation which is based on the concept of self-efficacy. That is, when learners carry out a task successfully, they develop the belief that they are capable of doing that kind of task. Hence, they become self-efficacious (1997, p. 238). Therefore, Bandura’s social-cognitive theory underlies the socio-affective strategies of learning.

*Vigotsky’s (1978) theory* is another theory underlying LLSs, and which is based on the premise that an individual’s cognitive system is a result of social interaction; Vigotsky’s theory is well known for the concept of the “zone of proximal development”. This concept refers to the layers of knowledge or skill which are just beyond those which the learners are presently capable of coping with. This theory fits well with language LLSs because when teachers help students to operate in their “zone of proximal development” while learning by providing them with support, the students can use a variety of thought processes such as

analyzing, synthesizing and interacting with materials as well as with individuals. In this instance, students are doing nothing but employing LLSs. Thus, Vigotsky's social-cognitive theory also underlies language learning strategies.

## **2. Definition and taxonomy of language learning strategies**

Many well-known experts in the field of LLSs such as O'Malley *et al.* (1985b), Oxford (1990), Rubin (1975) ...etc use the term *strategy*, yet there is still much controversy over this term. In other words, consensus is difficult to reach because some researchers use conflicting terminology such as *learning behaviours* (Politzer & McGroarty, 1985), *thoughts* or *beliefs* (Weinstein & Mayer, 1986), *mental processes* (O'Malley & Chamot, 1990), *behaviors* or *actions* (Cohen & Weaver, 1998; Oxford, 1990), *tactics* (Seliger, 1984), *skills* or *operations* or *plans* (Rubin, 1987), and *techniques* (Stern, 1992). These conflicting terms, most of the time, are used more or less synonymously with the term *strategy*.

From a cognitive perspective, many researchers have defined language learning strategies as mental processes. Nevertheless, a mental process cannot be easily described because it involves a higher level of abstraction. This is why Cohen and Weaver (1998) claim that a learning strategy should be distinguished from the non-strategic learning process. In the same line of thought, Macaro (2004) argues that "Strategies are not simply knowledge but contain a mental action that can be described. It is almost self-evident that the action component of a strategy ought to be describable by someone, especially a teacher or researcher" (p. 4).

Therefore, several researchers define LLSs according to their theoretical background. For instance, Rubin (1987) defines learning strategies as "any set of operations, plans, or routines, used by learners to facilitate the obtaining, retrieval, storage and use of information" (p.19). Rigney (1978) before Rubin (1987) defines in broad terms LLSs as "a set of operations used by the learner to aid the acquisition, storage and retrieval of information". Later, Stern (1983, p. 405) refers to LLSs as "particular forms of observable learning behaviour, more or less consciously employed by the learner." In 1992, Stern states in somewhat specific terms that "the concept of learning strategy is dependent on the assumption that learners consciously engage in activities to achieve certain goals and learning strategies can be regarded as broadly conceived intentional directions and learning techniques." (1992, p.261)



It is clear that Stern (1983) stresses the observable and conscious side of LLSs whereas Rubin (1987) and Rigney (1978) consider strategies as mental processes because they refer to them as operations or plans that facilitate the assimilation and storage of input and then its retrieval for later use.

O'Malley and Chamot (1990) consider learning strategies as “the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information” (p. 1). When O'Malley and Chamot (1990) refer to strategies as thoughts and behaviors which help learners understand and process new information, they clearly share the cognitive-based view of learning strategies with the other researchers before them such as Rubin (1987) and Stern (1983, 1992). Then in 2004, Chamot tried to restrict the definition of strategies when she refers to them – still within the cognitive theory – as “The conscious thoughts and actions that learners take in order to achieve a learning goal” (p. 14) hence, stressing the fact that strategies are conscious and goal-driven actions. Almost in the same year, Oxford (1990) shared the consciousness side of learning strategies with O'Malley and Chamot (1990), but she tried to specify the nature of learning strategies when she refers to them as “specific actions, behaviors, steps, or techniques students use – often consciously – to improve their progress in apprehending, internalizing, and using the L2” (p. 1).

From the abovementioned definitions, it seems that most researchers partially share some features of language learning strategies such as consciousness and the goal-driven nature of strategies although they treat them from different theoretical frameworks.

Based on the definitions provided by the early experts in the field of LLSs, Oxford (1990) developed one of the most comprehensive definitions of LLSs as: “operations employed by the learner to aid the acquisition, storage, retrieval, and use of information...; specific actions taken by the learners to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations.” (Oxford, 1990, p. 8)

Since there is total agreement in the literature that Oxford's (1990) definition is the most comprehensive to date (Oxford, 1999; Griffiths, 2003, 2006; Cohen, 2005; Riazi & Rahimi, 2005; Tam, 2013; Lee, 2010; Khamkhien, 2010), it is adopted as the working definition in the present paper.

Not only does how to define language learning strategies remain questionable in the field of LLSs, but also how to classify them is apparently of great concern and disagreement. As

stated by Oxford (1990), “there is no complete agreement on exactly what strategies are; how many strategies exist; how they should be defined, demarcated, and categorized; and whether it is - or ever will be – possible to create a real, scientifically validated hierarchy of strategies...Classification conflicts are inevitable.” (p. 17).

Therefore, lack of clarity and agreement among researchers in this domain has caused inconsistencies and mismatches across existing taxonomies and classificatory systems developed by different researchers. In the present paper the focus is on *Oxford's taxonomy* (2001, p.359) which classifies strategies into two main categories: direct and indirect strategies which are in turn subdivided into six subcategories:

*Direct strategies:* 1) *Cognitive strategies* which enable the learner to manipulate the target language material in direct ways such as note-taking, reasoning, analyzing, summarizing, synthesizing, outlining ...etc 2) *Metacognitive strategies* which enable the learner to manage the learning process through identifying the learning style preferences, planning for L2 learning, gathering and organizing materials, arranging for learning, monitoring mistakes, evaluating the learning process ... etc 3) *Memory strategies* which enable the learner to link one L2 item or concept with another.

*Indirect strategies:* 1) *Compensatory strategies* which help the learner make up for missing knowledge such as guessing from context in listening and reading, using gestures ... etc 2) *Affective strategies* which enable learners to control their mood and anxiety level, talk about feelings, reward oneself for good performance, use positive self-talk and deep breathing ... etc 3) *Social strategies* which help the learner work with others and cooperate to understand the target language as well as the culture. For instance, learners ask questions, seek verification, ask for clarification ... etc

### **3. Language learning strategies and motivation**

Many researchers examined L2 learners' use of LLSs in terms of the relationship between language learning strategies and learners' motivation to learn the L2. Oxford and Nyikos (1989), for example, highlighted the effects of motivation on strategy use by surveying 1,200 students studying various languages in a Midwestern American university in order to examine the kinds of LLSs the students reported using. In their study, the degree of expressed

motivation was found to be the most influential among the variables affecting strategy choice examined.

Another study carried out by Chang and Huang (1999) confirmed that intrinsic motivation was found to significantly correlate with LLSs, namely with cognitive and metacognitive strategies. Pong's (2002) study, on the other hand, revealed that extrinsic motivation significantly correlates with cognitive and affective strategies and intrinsic motivation was reported to have a significant correlation with cognitive and metacognitive strategies which supports Chang and Huang's results.

In another study, Chen (2000) examined the relationship between motivation and deep-processing / surface-level strategies in the EFL environment and discovered a positive relationship between deep-processing strategies and the motivation factors of betterment, acceptance, effort, and integration. However, surface-level strategies were found to significantly and positively correlate with the motivation factor of instrumentality.

According to the findings of these and other studies on the effects of motivation on strategy use, it can be concluded that motivation as a psychological construct do impact the use of LLSs, but in different ways. That is, different types of motivation influence different types of strategies in different learning contexts. Therefore, this paper will explore the relationship between motivation and the use of LLSs in the Moroccan EFL context from a qualitative perspective.

## **II. Research methodology**

The present study is exploratory in nature since the main purpose is to explore the language learning strategies used by Moroccan university EFL Science students and their motivation to learn English on the one hand, and to reveal the link between motivation as an independent variable and language learning strategies as a dependent variable on the other hand through a qualitative method of data analysis.

### **1. Research objectives**

The main purpose of this study is concerned with investigating how Moroccan university EFL Science students use language learning strategies and how they are motivated to learn English. To realise this purpose, this research paper is geared towards achieving the following specific objectives:

1. The study tries to examine the types of strategies Moroccan University EFL Science students use in the learning process.
2. The study tries to examine the types of motivation Moroccan university EFL Science students exhibit in their English language learning process.
3. The study tries to examine the relationship between motivation and Moroccan university EFL Science students' use of language learning strategies.

## **2. Research questions**

To meet the above-mentioned objectives, the following research questions are addressed:

1. What types of language learning strategies do Moroccan University EFL Science students tend to use more often?
2. What types of motivation do Moroccan university EFL Science students exhibit in their English language learning process?
3. In what way does motivation relate to language learning strategies used by Moroccan university EFL Science students?

## **3. Participants**

The population targeted in this investigation is Moroccan university EFL Science students at the Faculty of Sciences, Mohammed V University – Rabat. Since this population does not constitute a homogeneous group, then stratified random sampling technique is applied in order to obtain a representative sample of 60 participants.

## **4. Data collection instrument**

Since interviews have been acknowledged as valuable research instruments because they provide specific and personalized information on many types of language learning strategies which would not be available through classroom observations or other methods, as Oxford and Burry-Stock (1995) claim, a semi-structured interview is used to collect data for the present study. The choice of the semi-structured interview is also justifiable by the fact that it can provide depth of explanation using probes and prompts, something which cannot be achieved with questionnaires alone. Furthermore, semi-structured interviews are quite similar to open-ended questions used in questionnaires which allow the interviewees to react with more freedom.

The semi-structured interview in this study consists of three sections. The first section contains six questions on biographical data about the interviewees including their names, age, academic major, years of English study, languages spoken and whether the interviewee studies at an English school at the current time. The second section concerns 12 questions about the interviewees' motivations for and attitudes towards studying English. The third section consists of 22 questions that allow the interviewees to reflect and introspect on the LLSs they use while learning English. To account for reliability and validity of the interview, the interviewing was conducted in the subjects' L1 (Moroccan Arabic) for fear that their limited level of proficiency in English would have hindered their ability to express themselves with ease and reveal valuable information to serve the purpose of the study. This also helped avoid any embarrassment or anxiety the informants would have felt having to speak a language they do not master yet, especially that most of them were taking part in such an interview for the first time.

### **5. Data collection and analysis procedures**

The researcher kindly asked for volunteers for the interview, and actually most students were collaborative in accepting to be involved in the interviews. Many students wanted to participate in the interview provided that they use their L1 (Moroccan Arabic). The researcher accepted their condition and told them that their anonymity would be secured and no one other than the researcher would have access to their recorded data. The researcher selected 60 subjects, 10 students from each academic major (five females and five males) to be interviewed. A whole month was devoted to conducting interviews. The recording sessions were scheduled at the end of the interviewees' English classes at mid-day because this was a suitable time for both the researcher and the interviewees. A Digital Voice Recorder machine was used to record the interviews which were conducted in the participants' L1 Moroccan Arabic. The researcher asked the questions and the interviewees responded freely while the researcher was listening, recording, probing and prompting when necessary until the participant stops. The interviewees seemed comfortable and did not show any anxiety, which helped in eliciting interesting information that can be valid and reliable. Most interviews took between 20 and 25 minutes and a few of them took up to 30 minutes.

After collecting data using a qualitative method, the semi-structured interviews are first transcribed and translated into English to facilitate quoting interviewees' testimonies. Second, the interviews are categorized in themes and quantified to have a clear picture of the

informants' use of the different LLSs and the different types of their motivation to learn English. Third, these themes are analyzed using the content analysis method.

### **III. Results**

This section is devoted to the presentation of the results obtained after transcribing the 60 interviews and extracting the main themes and subthemes which the transcriptions yield. First, the demographic profile of 60 interviewees is described. Second, the percentages of the six strategy categories with subcategories subsumed under each strategy type are provided. Third, the percentages of the four types of motivation emerging in the semi-structured interview are delineated.

#### **1. Demographic profile of the interviewees**

As far as the demographic information of the 60 subjects who are involved in the interviews is concerned, the informants are equally distributed in terms of both academic major and gender (10 interviewees for each major and 30 for each sex category). Gender is also equally distributed within each academic major (five males and five females). The age range falls between 19 and 23 years; most of the interviewees are in their twenties.

From the demographic information of the informants, one can notice that Moroccan university EFL Science students belong to a multilingual society as they speak different languages distributed between mother tongue and official languages. For instance, the 60 interviewees speak 100% Arabic and French because Arabic is both their mother tongue (Moroccan Arabic) and their national and official language (Standard Arabic) while French is the main language in which they receive their university education. Also, 15% of the interviewees speak Tamazight as their mother tongue besides Moroccan Arabic possessing, thus, a double mother tongue. For English, 96.7% state that they speak English with varying degrees of proficiency whereas two interviewees confirm that they cannot speak English for reasons that they use to justify their statements.

As far as previous language learning experience is concerned, 75% of the interviewees report having three to five years experience while 20% report six to eight years experience and only two interviewees state that they had a language learning experience of ten years. Again as an exception, one interviewee state that he had no experience in studying English at all and justified his statement during the interview. To the question as to whether they take extra

courses at a private language center, 98.3% state that they did not while only one interviewee confirm that he was taking courses at the British Council.

## **2. Emerging types of strategies in the semi-structured interview**

In the semi-structured interview, all the six types of strategies (memory, cognitive, compensation, metacognitive, affective, and strategies) dealt with in the present study are heavily used by the 60 interviewees as reflected in the varying percentages drawn from their introspections.

### **Memory strategies have four subcategories:**

1. *Creating mental linkages*
2. *Using imagery*
3. *Reviewing*
4. *Word retrieval*

In memory strategies, *creating mental linkages* are the most used strategy since 66.7% of the interviewees resort to “contextualizing new words” and 61.7% prefer “associating and grouping new words” to remember them. Other informants state that they *use imagery* as a memory strategy. For instance, 50% use “visual memorization” whereas only 6.7% use “mnemonic devices” to remember new vocabulary. On the other hand, the interviewees resort to *reviewing* strategy as 96.7% “revise their lessons” and 36.7% “review the vocabulary” they have already learnt. *Word retrieval* as a memory strategy is also used, but to a limited extent since only 16.7% of the informants resort to “parsing and categorizing words” in order to memorize them while 45% rely on “learning by heart” or what is known as “rote learning”.

### **Cognitive strategies have four subcategories:**

1. *Practicing*
2. *Analyzing and reasoning*
3. *Creating structures for input and output*
4. *Resourcing*

In the semi-structured interview, the cognitive strategy category receives the lion’s share among the other strategies as it is heavily used by the 60 interviewees. The four subcategories of the cognitive strategy are used with quite high percentages. For example, in the *practicing* subcategory, 88.3% of the interviewees state that they “practice English naturalistically” and 75% prefer to use “the monologue or to rehearse at home” in order to practice speaking

English and train themselves in pronunciation. Besides, 60% of the informants say that they use “repetition” to remember words and practice English.

Another cognitive strategy which is heavily used by the interviewees is *analyzing and reasoning*. In this subcategory, “skimming and scanning” are used 100% by all the 60 interviewees who state that they skim and scan whenever they read an English text, whereas only 21.7% use “inferencing” while reading a text. Another cognitive strategy which receives a high percentage is *translation*. Thus 93.7% of the interviewees admit that they resort to “translating difficult English words into Tamazight, Arabic or French” to understand their meaning. By contrast, only 26.7% state that they “transfer words and grammatical structures from French to English”. “Analyzing expressions and structures” is used by 55% of the informants and 65% rely on “subtitles while watching English movies or TV programs” to help them understand.

As a cognitive strategy, the interviewees *create structures for input and output* with varying degrees of use. For instance, to structure the input they receive in class, 91.7% of them “take notes” while the teacher is explaining the lesson and 21.7% of these interviewees “organize their ideas” and “summarize the input”. Besides, 36.7% “create a glossary” to keep track of the vocabulary they learn. “Underlining difficult words” while reading as a cognitive strategy for structuring input is used by only 18.3% of all the informants. On the other hand, 38.3% of the interviewees use cognitive strategies even in speaking as they state that they “mentally create a structure for their output” before they start speaking; and 8.3% of them “write down the message before speaking”.

The last cognitive strategy which is highly used by the interviewees is *resourcing*. The interviewees rely on three main resources to learn English. First, 93.3% of them state that they use “dictionaries (monolingual and bilingual) and English textbooks” to learn vocabulary and grammar. Second, 80% of the informants rely on “the internet and social media” to practice their English while only 11.7% use their “background knowledge” when they need to understand a reading comprehension text or write an essay for example.

### **Compensation strategies have two subcategories:**

1. *Guessing*
2. *Overcoming limitations in speaking or writing*



Similar to cognitive strategies, compensation strategies are also excessively used by all the interviewees. They use *guessing* as a compensation strategy, especially “guessing from context” (58.3%), followed by “using key words” to understand the meaning of another word or of the whole sentence (16.7%) and “guessing meaning of one word from adjacent words” (5%).

Moreover, the 60 interviewees rely on a number of compensation strategies to *overcome their linguistic limitations in speaking and writing*. For example, 90% of the informants resort to “gestures and mimicry” besides using their limited input of English to express their messages whereas 58.3% admit that they fall back on “code-switching” and use Arabic or French. In addition, 45% of the interviewees either use “simplification and rephrasing” or they “seek help from their interlocutor”. Another compensation strategy the interviewees say they resort to in case of difficulty is “approximating the message” (38.3%) to make themselves clear or making use of “circumlocution and synonyms” (30%) instead of “avoiding communication and keeping silent” as 16.7% of them prefer to do. “Drawing” is another compensation strategy which 21.7% of the interviewees prefer to use instead of “abandoning the message” as 5% do when they get stuck.

### **Metacognitive strategies have three subcategories:**

1. *Centering learning*
2. *Planning learning*
3. *Evaluating learning*

In this semi-structured interview, Metacognitive strategies are extensively used by the interviewees. For instance, to *center their learning*, 55% try to “focus and pay attention” while learning English and 38.3% try to “delay speech production to focus on listening and at the same time try to mentally organize and structure ideas”. However, only 15% of the informants say that they try to “link with their background knowledge and the already learnt material”.

As far as *planning learning* is concerned, “seeking practice opportunities” comes first with 100% of use. This is followed by “setting goals and objectives” for learning English with 96.7%. Another metacognitive strategy used to plan for learning is “discovering about language learning”; 88.3% of the interviewees tend to discover how English is used while listening or reading some material. Furthermore, the interviewees tend to “schedule their

learning of English” since 71.7% try to manage their time to learn more English. Last, only 31.7% of them try to “organize the input” they receive.

*Evaluating learning* also receives its share as a metacognitive strategy since 93.3% of the interviewees try to “evaluate themselves” as language learners, and 78.3% of them state that they “monitor their progress” in learning English. “Seeking the teacher’s feedback” as a metacognitive strategy is used by only 38.3% of the informants.

### **Affective strategies have two subcategories:**

1. *Lowering anxiety*
2. *Encouraging oneself*

Affective strategies are the least used by the interviewees compared to the other strategies. *To lower their anxiety* and deal with panic, 33.3% of the interviewees say that they “keep silent for a while” and then continue speaking whereas 26.7% of them state that they “avoid the panic” by trying to hide it or suppressing it internally. Another affective strategy to deal with anxiety while using English is that 13.3% of the informants try to “calm down” when they feel that they are under stress; 11.7% of them try to “breathe deeply” in such a situation and 10% try “to relax”. By contrast, only 3.3% of the interviewees “smile or laugh” when they are in a situation of panic while speaking English.

When it comes to *encouraging oneself* as an affective strategy, 95% of the interviewees feel “satisfied with themselves” when they perform well in English and 78.3% “motivate themselves” to learn more. Another affective strategy used by the informants is that they resort to “positive self-talk” (25%) to encourage themselves to keep on learning English and they even “reward themselves” for doing well (23.3%).

### **Social strategies have three subcategories:**

1. *Asking questions*
2. *Cooperating with others*
3. *Empathizing with others*

Unlike affective strategies, social strategies are used to some extent by the interviewees. Among the interviewees, 48.3% do “ask questions for clarification or verification”, but only 21.7% of them “ask for correction”. Another social strategy which is heavily used is “cooperating with peers” (66.7%) and “asking for help from peers” (55%). Compared to these social strategies, *empathizing with others* receives the lion’s share of use. That is, 88.3% of

the interviewees try to “develop cultural understanding and awareness” while learning English and 78.3% learn English to “become aware of other people’s feelings and ways of thinking”. Besides, 63.3% “socialize online with foreigners” using English.

### **3. Emerging types of motivation in the semi-structured interview**

Four types of motivation which are integrative, instrumental, intrinsic and extrinsic motivation are reflected in the interviewees’ introspections with varying degrees.

#### **Integrative motivation emerges with four elements:**

1. *Usefulness of English for cultural integration and exchange.*
2. *Usefulness of English for communicating and socializing online with people.*
3. *Usefulness of English for getting acquainted with the Anglo-Saxon culture, literature and civilization.*
4. *Usefulness of English for cultural openness and knowing foreigners’ ways of thinking.*

According to the results of the semi-structured interview, 80% of the interviewees state that learning English is “useful because it allows them to communicate and socialize online with foreigners and people in general”. Moreover, 65% regard learning English as “useful for cultural integration and exchange”. Only 20% of the interviewees say that learning English “helps them to be acquainted with the Anglo-Saxon culture, literature and civilization”. Besides, 13.3% confirm that learning English is “good for knowing how foreign people think and it enables them to open on other cultures”.

#### **Intrinsic motivation emerges with six elements:**

1. *Enjoying learning all aspects of English and having a strong desire to use it like native speakers.*
2. *Ambition and perseverance to learn and master English.*
3. *Setting goals and objectives for learning English.*
4. *Learning English to develop one’s competences.*
5. *Learning English to satisfy one’s desires and pleasures.*
6. *Learning English is empowering and boosts one’s self-esteem.*

Similar to integrative motivation, the intrinsic type displays high percentages, especially for two elements and varying percentages for the other four elements. Hence, 95% of the interviewees are “ambitious to learn more English” and they want to “persevere in learning in the future”. In addition, 93.3% of the interviewees state that they “enjoy learning the language

with a strong desire to speak English like natives". For 21.7% of the informants, learning English is "empowering and plays a role in boosting their self-esteem"; whereas 8.3% "set goals and objectives for their learning of English". Two elements of intrinsic motivation including learning English to "satisfy one's pleasures and desires" and learning English to "develop one's competences" receive a small percentage (3.3%) and (1.7%) respectively.

### **Instrumental motivation emerges with six elements:**

1. *Importance of English for one's career and future.*
2. *Need of English for utilitarian purposes such as solving practical problems in life in general.*
3. *Importance of English for further studies and scientific research.*
4. *Usefulness of English for getting information in one's field of study on the internet.*
5. *Learning English to be well-educated and cultured.*
6. *Usefulness of English for watching movies, the news, TV programs and listening to songs.*

The percentages of instrumental motivation are higher compared to the other three types of motivation. 98.3% of the informants consider learning English as "important for their career and future in general" while 93.3% regard learning English "useful as it helps them watch English movies, the news, different TV programs and listen to songs". Furthermore, 70% of the interviewees find learning English "important for furthering their studies and doing scientific research". Another important element of instrumental motivation which receives a high percentage (61.7%) is "the usefulness of learning English to have access to information on the internet relative to their own major or other domains". However, 50% of the interviewees need to learn English for "utilitarian purposes such as solving practical problems in their daily life". The aspect of instrumental motivation which receives a low percentage (11.7%) compared to the other aspects is "learning English to be well-educated and cultured".

### **Extrinsic motivation emerges with seven elements:**

1. *English as a source of relaxation compared to other classes.*
2. *Diversity of learning activities and group work in the English class.*
3. *Use of different methods and pedagogies in the English class.*
4. *Teacher as source of motivation.*
5. *Learning and using English because one is obliged to do so.*
6. *Associating value with learning English.*

#### 7. *Learning English to get high grades.*

The percentages related to extrinsic motivation exhibit one element which receives the highest percentage among the others. That is, 75% of the informants regard learning English as “important because they associate positive values with the language itself”. 23.3% of the interviewees state that they learn English because they are “obliged to do so” whereas 20% consider “the role of the teacher as important in learning English”. Other aspects of extrinsic motivation which push the informants to learn English are all related to the English class as compared to the other classes. For instance, 16.7% state that they are motivated to learn English because “different methods and pedagogies are used in the English class” while 15% admit that they “feel relaxed in the English class” because they interact and express themselves freely unlike in the other classes in which they need to concentrate more and take notes most of the time. Moreover, 11.7% of the informants appreciate learning English because they “do different activities and work in groups”. Only 1.7% state that they learn English “just to get high grades”.

### IV. Discussion

In this section, the researcher tries to provide a qualitative analysis and discussion of Moroccan University EFL Science students’ reported use of LLSs and their motivational orientations.

As far as Memory strategies are concerned, creating mental linkages, especially associating and grouping are much used by the interviewees. For instance, a female interviewee from Mathematics major says: *“When I hear or see a new word, I try to relate it to something else I’ve heard or seen on TV or read somewhere.”* Therefore, the interviewee tries to create a mental linkage between what she learns as new information and what she already knows. Another memory strategy which the participants report they make use of more frequently is visual memorization to remember new words as illustrated by the following statement from a male interviewee from Physics major: *“I link the new word with its image or I just try to locate where I’ve seen the word.”* One of the memory strategies related to rote learning is somehow used by the interviewees as they confirm that they resort to this strategy when they have difficulty retaining vocabulary, expressions or grammatical structures. An example is the following statement of a male interviewee from Computer Science when asked whether he tries to learn things by heart: *“Of course, I try to learn by heart new words, expressions and verbs.”* In addition, the memory strategy related to contextualizing new words is heavily used by the interviewees. A female interviewee from Biology says: *“I try to use the new word in a*

*sentence so that I can remember its meaning and how it is used and I try to use this new word often.”*

This dependency on memory strategies can be due to students' actual stage of learning. It maybe that these students are at an early stage of their English learning and, hence, they need to use various memory strategies to encode the new input they receive in order to stock it in their short-term memory before transferring it to the long-term memory so that they can retrieve it later. This is one of the underlying principles of the information processing theory on which language learning strategies draw as O'Malley and Chamot (1990) state “The role of learning strategies in the acquisition of information generally can be understood by references to the information processing framework for learning” (p.17). Nonetheless, despite the usefulness of memory strategies for stocking information in memory to be retrieved later, they do not involve deep comprehension on the part of the learner. Another explanation is related to the vocabulary size of the students; they may have a shortage of vocabulary so they resort to different memory strategies to build their own vocabulary repertoire. Furthermore, the nature of the Moroccan educational system which is based on memorization as a technique for acquiring knowledge, especially in primary school, can explain Moroccan students' use of memory strategies because they are already used to various memorizing techniques.

Cognitive strategies are also used a lot by the informants, especially the analyzing and reasoning strategy. This is reflected in the response of a male interviewee from Geology major who says: *“I always rely on the subtitles to understand otherwise I wouldn't understand anything because I can retain only the end of what they say as they speak very fast. Recently, I tried to listen first and then after a while read the subtitle to get used to listening without reading the translation and gradually get rid of subtitles.”* Two cognitive strategies are also reported which are creating structures for input and output, especially summarizing and organizing ideas. A female student from Chemistry major reports that *“Before each session, I try to revise the lesson of the previous session. I summarize the lesson and I try to remember the rules.”* Therefore, this female interviewee confirms that she practices summarizing strategies when she is probed for the use of reviewing strategies. However, when another male interviewee majoring in Chemistry too is asked about writing, he clearly admits that he seldom practices writing and organizing ideas in output as he says: *“It depends on the person*

*I'm writing to; if the person uses English, I'm obliged to do so too. Sometimes, I use only some English words while chatting in French or Moroccan Arabic even."*

According to the findings of the present study, Moroccan university EFL Science students make great use of a wide repertoire of cognitive strategies such as practicing, analyzing and reasoning or structuring input and output because the learning of any new language requires the learners to use cognitive processes to manipulate input. This is the case of the present study participants who try to reason out the language by constructing a formal model of the linguistic system of English in their minds on the basis of analysis and comparison, and then come up with general rules to apply them in new situations. Another factor which may explain the present study participants' heavy reliance on cognitive strategies is their high motivation to learn English. As they are both instrumentally and integratively motivated, these students resort to a variety of cognitive strategies to analyze the input they receive and try to structure it in a way that it can be transformed into an output. This can be a valid argument since the relationship between motivation and LLSs in general is circular in the sense that a strong motivation may lead to a greater use of strategies and the latter may cause students' motivation to increase. That is, when students are highly motivated, they use more LLSs which improve their language performance and in turn increase their motivation. In addition, the use of cognitive strategies can be explained by the fact that Moroccan students belong to a multilingual society as they speak at least two languages. Through their exposure to two languages – Arabic and French – as formal vehicles of learning in the educational system, they may have acquired a substantial repertoire of different learning strategies including the cognitive ones. These strategies previously used in these two languages can be transferable to learning English.

Compensation strategies which are used to overcome linguistic limitations in speaking or writing are used to some extent by the interviewees in the form of circumlocution or synonyms that the students resort to in case they do not know how to say something in English. This extract from an interview with a female informant majoring in Mathematics shows an instance of circumlocution: *"I try to use description of what the word means if I don't have the correct word or I take the French origin of the word I intend to use and give it an English form either in pronunciation or spelling."* Another male informant from Biology resorts to synonyms in case he does not know the exact word he wants to use, saying *"I try to find synonyms for the words which are unclear or I rephrase the sentence so that the other can understand me."* The use of circumlocution and synonyms as compensation strategies can

be a good sign that the subjects of the current study are progressing in their learning of English. They do their best to keep learning and achieve their goal in communication which is to make their interlocutor in either speaking or writing understand their message despite the language difficulties or even linguistic gaps they experience.

The interviewees heavily resort to gestures and mimicry as compensation strategies if they lack the exact words to express themselves. This is an example of a male informant specialized in Physics who resorts to gestures as a solution for maintaining communication; he says: *"I try to use all my abilities; I try to speak in English and use gestures at the same time. If I really can't do it in English, I draw it."* The use of gestures as a compensation strategy is quite acceptable in different communicative situations and much expected in a foreign language classroom because communication does not happen only through verbal means, but non-verbal tools are also involved. Therefore, the sample of this study relies heavily on gestures to compensate for their lack of linguistic knowledge in English and to sustain their communication with non-verbal means in order to avoid any communication breakdown.

Generally speaking, Moroccan students resort to a wide range of compensation strategies both in comprehension and production to make up for their missing information in English. This heavy reliance on compensation strategies can be due to different factors. One of these factors which initiate the use of different strategies including compensation is the students' high motivation. That is, since students are highly motivated, they try to explore different ways to learn English and put what they have learnt into practice. Therefore, they exploit different ways such as gestures, drawing, circumlocution, paraphrasing ...etc to participate in different communicative situations such as conversations and productive tasks like writing. Another possible reason for this heavy use of compensation strategies is that Moroccan university EFL Science students are strongly engaged in grammar- and vocabulary-based learning at the expense of speaking or writing which are the two productive skills in language learning. In other words, Moroccan students learn in a passive environment which transmits English linguistic knowledge from books or teachers to the brains of students without providing them with an active and authentic context so that they can put this linguistic knowledge into practice. This is why when students find it difficult to transfer their knowledge of grammar and vocabulary to real practice, they resort to either nonverbal tools and strategies such as gestures or circumlocution to make up for their deficiencies in language skills. Also, the fact



that these students may have a strong desire to persevere in learning and using English can be a plausible explanation for their use of compensation strategies. Actually, with the help of these strategies used both in comprehension and production tasks, students are able to produce spoken and written expressions, phrases and even sentences in English although they have certain deficiencies in language skills. The essential goal for these students is to continue using and learning English by all means. On the whole, compensation strategies seem to be crucial for students, especially at an early stage of learning, to help them progress in the learning process and become better language learners.

As far as metacognitive strategies are concerned, the interviewees make average use of focusing and paying attention which is subsumed under centering learning strategy. For example, a male informant from Mathematics major shows how he pays attention to how English is used in movies when he says: *“When I’m watching a film for instance, I tend to read the subtitles because they help me pick up new vocabulary, but I try to pay attention to what they say and how they say it.”* Metacognitive strategies like centering learning, thus, seem to help Moroccan students reflect on their learning process since they try to pay attention and focus on the activities they are engaged in whether inside or outside class such as watching an English movie. Therefore, the students use these metacognitive strategies to develop a sense of self-directed and autonomous learning. In this regard, O’Malley and Chamot (1990) state “students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions” (p. 8).

Among the metacognitive strategies investigated is monitoring one’s progress in learning English. This is what a male interviewee specialized in Physics says: *“I feel that my level should be improved so that I can avoid these mistakes.”* Another metacognitive strategy which is seeking practice opportunities is used by all the interviewees. The following response from a female informant majoring in Geology shows how these interviewees make use of different opportunities to improve their level in English. She says: *“I try to watch a lot of TV programs and movies in English; use English websites and the internet; and speak English with people a lot.”*

According to the findings of the present study, metacognitive strategies, like cognitive strategies, are of paramount importance to learners. They seem to be used nearly at the same

rate. This is quite understandable since metacognitive strategies represent the knowledge students possess about cognitive processes. That is, metacognitive strategies are the executive control which students have over their learning process in the form of centering, planning and evaluating their learning. Again, it may be plausible to argue that Moroccan university EFL Science students' previous experience in learning Arabic and French may have triggered their development of metacognitive strategies, which they transfer to English learning, as found in the present study. On the whole, the use of metacognitive strategies, as Anderson (2002) confirms, ignites students' thinking and helps them move to higher learning and attain better performance. Moreover, metacognitive strategies are central to the language learning process because once students know how to regulate their own learning through the use of different strategies, the speed of language learning becomes faster (Anderson, 2003).

Affective strategies are used to a limited extent by the informants. For example, to lower anxiety, they try to breathe deeply, calm down, keep silent for a while and smile or laugh. However, the informants tend to use more self-motivating strategies, develop self-satisfaction and talk positively to themselves instead of rewarding themselves when they do well in English. A female interviewee from Computer Science provides the following response to the question *"Do you reward yourself when you do well in English? How do you do that?"* She says: *"Maybe I reward myself without being aware of it; in fact, I don't remember an instance when I did this. What I'm sure of is that when I get a good mark or do well in English I talk to myself positively."*

It is important to note that the participants do not seem to resort to affective strategies a lot as revealed in the current study. This may be due to cultural reasons as Moroccan students are not used to rewarding themselves when they perform well or revealing their feelings to other people while learning. In addition, teachers tend to neglect the affective side of learners. However, this cultural factor remains speculative and needs further research to prove its effect on the use of affective strategies. Quite interestingly, however, the subjects of the present study do use some self-motivating strategies like the positive self-talk or self-encouragement. This may be explained by their high motivation to achieve a good level of proficiency. According to Oxford (1990), this self-motivation or self-encouragement is much better than the appreciation that comes from other people because it stems from an intrinsic motivation of the student.

Social strategies are used by half of the interviewees under the strategy asking for clarification or verification. This is what a male informant majoring in Mathematics states when asked “*Do you often listen to people (like tourists on a train or on the street for example) talking in English? What do you do to help yourself understand?*” The Interviewee replies: “*It is difficult for me to understand them if they are speaking fast; but if they are talking to me, I ask them to slow down so that I can understand them.*”

Social strategies are considered one of the useful tools to practice communication in English in terms of interpersonal behaviors such as asking questions, asking for clarification and verification or asking for help. Interestingly, Moroccan university EFL Science students in the current study do use social strategies although they belong to an EFL context in which communication in English is very limited given the little chance they have to use authentic English. To make up for this lack of authentic input, they try to look for opportunities to involve themselves in real communication such as talking to tourists or socializing with foreigners through social media.

Another social strategy which is cooperating with peers is used at an average level by the interviewees. The following female informant from Physics major confirms this cooperation strategy when she says: “*Yes, we study English as a group, especially when exams are close.*”

Resorting to social strategies, such as cooperating with peers, while learning English can be explained by the students’ familiarity with this strategy in their different content classes. In the English class, they use cooperation strategies like working with peers on challenging tasks or asking proficient peers for help in order to facilitate their learning. These strategies do not only help them improve their level in English, but they help them gain self-worth and social acceptance within their learning environment as well. Developing cultural understanding and awareness under the social strategy of empathizing with others is heavily used by of the informants. Furthermore, they report that becoming aware of other people’s ways of thinking and feeling as a social strategy is used along with socializing online with foreigners. In fact, social strategies do not only help students to work with others and improve their language performance, but they help them develop an understanding of the target culture as well because as Oxford (1990) states “language is a form of social behavior”. Therefore, it is impossible to disentangle language from social interaction which is used as a vehicle for different cultural behaviors. Thus, as the findings of the present study demonstrate, the participants rely on empathizing as a social strategy to understand the culture of foreigners

and their ways of thinking and feeling. This empathy which students develop with regard to the foreign language and culture can help them succeed in learning English.

There are at least two plausible explanations for the use of social strategies by the students in the current study. First, these students may prefer to use social strategies to escape the passive grammar and vocabulary centered classes in which there is little space for speaking and real communication. Moroccan students try to look for some authentic situations in which they can use their English for communicative purposes. Second, the students' unlimited exposure to the internet, different multimedia sources and social networking such as Facebook may be a reason for the use of a variety of social strategies. These NTIC (New Technologies of Information and Communication) tools provide students with more English input and permit them to engage in social interaction by socializing with foreigners online and empathizing with different foreign cultures. Therefore, students are encouraged to use social strategies inside and outside class to practice their English because they are aware that they belong to an EFL context which does not provide them with rich input of English and authentic opportunities for real communication.

As far as motivation is concerned, the results of the present study indicate that Moroccan university EFL Science students are inclined towards integrative motivation. The majority of the interviewees find learning English useful for communicating and socializing online with people. This is reflected in the following response by a female interviewee majoring in Biology: *"Umm, I think English will be useful in my life in general because English is used a lot in our life; for example, if I'm online chatting with someone and the person speaks only English, I won't find any problems in communication."*

In the light of the findings concerning motivation, Moroccan university EFL Science students in the present study are inclined towards integrative orientation in their learning of English because as Gardner (1985) stresses "languages are unlike any other subject taught in a classroom in that they involve the acquisition of the skills or behavior patterns which are characteristic of another cultural community" (p.146). Actually, students who learn English with an integrative goal in mind try to capitalize on all practice opportunities and have a strong desire to reach a high proficiency level in English. This is what Moroccan students in this study attempt to do when they seek communication opportunities with foreigners and try to know about their cultures and civilization. Not only are Moroccan university EFL Science students interested in communication with foreigners, but they are interested in cultural

integration and exchange as well since most of them state that learning English is useful for these reasons. This is clearly expressed by this female informant from Physics major who says *“The usefulness of English in my life in general is reflected in communication with people from different cultures. I intend to continue my studies in the U.S. so English will be useful for me to integrate in the American society.”*

It should be important to note that this strong desire to integrate in the target language community and this enthusiasm to learn about their culture, literature and civilization can be a good reason why Moroccan university EFL Science students use different language learning strategies. As stated by Bonney *et al.* (2008) “students with an integrative motivation are more interested in becoming immersed in a culture, and increase their capabilities of interacting with native speakers. If students are able to compensate for any lack of knowledge they have about a language, and are able to troubleshoot these problems by thinking of synonyms, asking native speakers to slow down or repeat themselves, or make gestures to help communicate their thoughts, they may be more likely to successfully communicate and interact with native speakers.” (p. 8).

Other interesting aspects of integrative motivation are the usefulness of English to get acquainted with the Anglo-Saxon culture, literature and civilization and the usefulness of English for cultural openness and knowing about foreigners’ ways of thinking. These two aspects of integrative motivation are stated by the interviewees. For instance, a female informant majoring in Physics responds: *“I like very much to learn how to communicate and I also like the English literature, especially the British one. They have interesting books and writings.”* Another female informant majoring in Mathematics also confirms that she appreciates the English language and the Anglo-Saxon culture, literature and civilization when she says: *“..... apart from studies, English is important as a culture and I like many things in the language. For example, there are a lot of novels and stories in English that I would like to read and also there are many thinkers whose writings are in English.”*

It is likely that this zeal of the present study participants for integrative motivation, though they study in an EFL context, stems from the fact that they associate a global status with English. That is, they consider English as an international language and do not closely associate it with its native speakers. However, there is a need for further research to shed more light on this aspect.

Concerning intrinsic motivation, only two aspects are heavily reported by the interviewees, but the other aspects are reported with varying degrees. For instance, almost all the informants highly report the ambition and perseverance to learn and master English. A male interviewee from Computer Science major makes the following response: *“Umm.....absolutely, I’ll continue learning English until I get my TOEFL.”*

The fact that Moroccan university EFL Science students’ intrinsic motivation is generally high can be attributed to their desire to be successful and autonomous. In other words, these students are interested in learning the language for its own sake and they want to attain enough proficiency to pursue higher level studies. In this way, they will feel a sense of accomplishment and autonomy in their learning. According to Self-Determination theory, students who are intrinsically motivated are usually high achievers and autonomous because they are able to perform well and succeed as there is no outside pressure on them. On the other hand, they have an inside driving force which instills some kind of self-confidence in them to learn on their own.

Another aspect of intrinsic motivation is reported by almost all the informants who state that they enjoy learning all aspects of English and they have a strong desire to be like native-speakers. As an example, a female informant majoring in Biology clearly expresses this strong desire when she responds: *“Frankly, I like to learn all the components of English.”* In fact, the semi-structured interview yields interesting aspects of intrinsic motivation. For instance, some of the informants state that they learn English because they find it empowering and it boosts their self-esteem and others say that they learn English to satisfy their own pleasures and desires. For instance, a male interviewee from Computer Science expresses how learning English satisfies his own pleasures and desires when he says: *“Yes it is very important because it is the language of the world; it is accessible almost to everybody. Besides, people who learn different languages can be safe against Alzheimer because they keep changing languages which makes their minds process different codes and their brain cells are all the time alive and elastic.”* This intrinsic orientation in learning English can also be due to the Moroccan students’ desire to create a good self-image and achieve some kind of self-worth in society. They want to avoid loss of face in front of the other when they are in a situation that requires the use of English. Therefore, it can be said that intrinsic motivation is

much related to the personality of the learners since it stems from within their selves and, hence, this type of motivation can be enduring unlike other types which are sporadic.

In short, intrinsic motivation is somehow similar to the integrative orientation since both types are initiated from inside the students. That is, integrative motivation is driven by an internal force to identify with the target language community and explore their culture through learning English; intrinsic motivation likewise is driven by the same force to learn English for the mere enjoyment of learning and to develop a high self-esteem and some degree of self-confidence. Thus, both types seem to be stable and can foster successful learning.

For instrumental motivation, the present study reveals that Moroccan university EFL Science students are highly instrumentally motivated. For example, almost all the interviewees say that learning English is important for their career and future. A male informant from Chemistry major responds in the following way: “....*English can serve either in applying for a job or in the job interview. For example, if I master English, I may have an advantage in getting a job over another candidate who is not good at English.*” Actually, the informants seem to be highly instrumentally motivated for utilitarian purposes. A possible reason for this could be that they believe English will form the basis for their future careers as it can secure job opportunities for them. This instrumental orientation is not surprising given the globalization process and the importance of English for job opportunities in the global job market. Furthermore, the usefulness of English for watching movies, TV programs, the news and listening to songs receives the lion’s share in the interview since all the informants state that they need English for such purposes. A male interviewee majoring in Physics clearly expresses himself saying: “*Yes, I watch English movies a lot and listen to songs in English and I read their lyrics so as to understand their meaning. I also watch scientific documentaries in English to follow what is happening in science and technology.*”

Generally speaking, students have different needs and interests which generate this instrumental inclination to learn English. For instance, Moroccan students can be instrumentally motivated to learn English just for entertainment purposes such as watching English movies and TV programs or listening to songs.

This qualitative study indicates that the interviewees’ level of extrinsic motivation is somehow low compared to the other types of motivation. Some of the interviewees state that

they enjoy the English class because it is characterized by the diversity of learning activities based on group work. This is clearly stated in the answer of a female interviewee specialized in Mathematics when she spontaneously says: *“Yes, of course especially if there are a lot of activities in the English class such as songs and games because they help us improve our English and learn easily.”* One of the external factors which motivate Moroccan university EFL Science students to learn English may be the way they are taught English such as the use of games and songs in class. This means that Moroccan students prefer to learn in a comfortable and relaxed environment in which they experience learning a foreign language in a funny way without being under stress and pressure. However, some of the informants say that they learn English because they are obliged to do so. For instance, a female interviewee from Physics major confirms that *“Although I said I don’t like English, I would like to learn it and have a good level because I’m obliged to do so since English is the language of scientific research.”* Moreover, learning English to get a good grade is not much solicited as an extrinsic motivation because only few informants state that they learn English for this purpose. Another factor which best explains this extrinsic orientation in learning English is related to the feeling of obligation. That is, students feel they are obliged to learn the language in order to fulfill the academic requirements of the university or because they are in need of English for scientific reasons like doing research.

Other interesting aspects of extrinsic motivation emerge in the semi-structured interview. For instance, the majority of the informants state that they learn English because they associate certain values with the language. A female interviewee majoring in Chemistry responds in this way: *“...I think it is very important because as I said before it is an international language. English never dies and it is a passport for communication with different people from different nationalities.”* This extrinsic inclination in learning English can also be due to the value which Moroccan students associate with learning English. They view the language as the world lingua franca which allows them to communicate with people from different countries.

Another interesting aspect of extrinsic motivation spotted in the interview is the teacher as a source of motivation. Some of the interviewees say that they are motivated if their teacher of English helps them learn the language. For instance, a male informant from Chemistry major says *“I enjoy the English class, especially if I participate well or if the teacher can create a joyful atmosphere in the classroom and motivate us to learn. The English class makes me feel*



*delighted unlike the French class in which I feel embarrassed and afraid to participate.”* Furthermore, the use of different methods and pedagogies in the English class is another aspect of extrinsic motivation for students to learn English. For example, a male interviewee from Computer Science major expresses this clearly in the following extract: *“Yes certainly because the English class is different from the other classes which rely on lecturing and note-taking; this is sometimes boring. The English class, however, is lively and dynamic because there are varied activities which require interaction.”*

It seems, thus, that students’ external motivation is not only boosted by the way they are taught English, but the teacher, as an external factor, seems also to play a crucial role in motivating or demotivating students as well. If the teacher is able to create a relaxed and dynamic atmosphere in class for students to learn without much anxiety, he/she will boost their extrinsic motivation which, if sustained, can be turned into intrinsic motivation later.

Other interviewees consider English as a source of relaxation compared to other classes which is another element of extrinsic motivation. This is why one female respondent from Physics major states: *“Yes, sure I enjoy the English class because I feel relaxed and I change the routine of scientific thinking and learning. In the English class, I express myself freely and I interact with the teacher and students; something which we rarely do in the other classes.”*

On the whole, the results reveal that the present study participants are extrinsically motivated, though not with the same degree as integrative, intrinsic or instrumental motivation. This may be attributed to the fact that they are not much exam-oriented since they rarely learn English only to get good grades. On the other hand, they learn English either for its own sake or for utilitarian purposes (future career or furthering studies). From the findings of the current study, it can be concluded that integrative/instrumental and intrinsic/extrinsic types of motivation are placed along a continuum and the students’ motivation as a psychological state fluctuates between different types depending on their needs and interests.

## **V. Implications and conclusions**

Based on the findings of the present study, some pedagogical implications can be drawn to gain some insights into the curriculum development and textbook design areas as well as the teaching and learning process. These implications are as follows:

- There should be an emphasis on basing the curriculum guidelines on the language learning strategy theory. For instance, curriculum developers can encourage teachers to incorporate strategy instruction within their courses.
- Textbook designers can produce language textbooks which include a variety of tasks that require students to use a wide range of language learning strategies.
- The textbook designers can include strategy instruction as part of the syllabus to raise both teachers' and learners' awareness of language learning strategies.
- Teachers should be aware of the existence of an unlimited variety of learning strategies and try to equip their students with the appropriate ones to acquire each skill of the language. This can be done through strategy instruction and specifically through explicit training of students into how to apply the learning strategies.
- Teachers should provide students with language tasks which motivate them to use language learning strategies and become more enthusiastic and, hence, enjoy language learning.

The findings of the present study have also triggered the researcher's interest in some possible implications for future research in the area of language learning strategies. Among these implications, there are the following:

- Further research should focus on other factors such as students' learning styles, personality traits, or language proficiency which can provide a clearer picture of LLS use by Moroccan university EFL Science students in particular and EFL students in general.
- More research should be conducted on LLSs in Morocco which combines both learners' and teachers' perceptions of LLS use with a focus on the learning strategies used by students and how they match the teaching strategies used by teachers.
- There is a need for an experimental study which tests the effect of strategy training on improving students' proficiency level in English.
- Other research instruments should be used to assess the use of LLSs besides questionnaires and interviews, including, for example, verbal protocols in order to elicit more invisible strategies that students use to mentally process language learning.
- Future research projects should try different research designs such as experimental studies, case-studies, longitudinal studies and diary-based studies in order to gain more insights into the actual use of strategies and the different factors which influence them.

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