## Promoting Quality, Equality and Inclusion through Rethinking Mediums of Instruction in Moroccan Public Schools

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**Abstract**

*The multi-linguistic nature of Moroccan society entails the existence of different languages such as Moroccan Arabic, Amazigh Language with its varieties, Standard Arabic, French, and English. From this group, the Moroccan education system opts for two main languages as official mediums of instruction: standard Arabic and French; Arabic starting from the first level in primary school and French beginning from the first year in secondary school. This state of fact challenges the notions of inclusion and equality in the Moroccan education system. Students are being taught in languages different from their mother tongues. The focal objective of this paper is to prove that the gap between the languages used at school and students' home languages harms the students' learning outcomes, integration, self-esteem, and self-confidence. To test the validity of this claim, the paper uses a mixed-method approach; a questionnaire is addressed to 200 high school science students to investigate how the absence of their home languages affects their learning outcomes, participation in classroom activities, self-esteem, and self-confidence. In addition, 20 high school teachers are interviewed to detect the negative impact of the mediums of instruction on the students' learning outcomes, participation in the classroom activities, self-esteem, and self-confidence. Findings reveal that languages of instruction form a real hindrance to guaranteeing quality education for students. All the teachers' interviewed confirmed that using the official mediums of instruction in the classroom hampers students' performances and affects their results.*

## 1. INTRODUCTION

This study is conducted under the framework of the new global projects targetting promoting and providing quality education for all people worldwide. The ongoing debate about the challenges facing the quality of education worldwide resulted in the issuing of the Education for All (EFA) program at the Dakar World Education Forum in 2000. This program consisted of 15 goals. Most important was "to provide quality basic education for all, children and adults."

Assessment of the attainment of the EFA goals by UNESCO in 2014 made the two United Nations organizations widely concerned with education announce that there is a global crisis in learning. According to the global monitoring report issued for Education for All program, there is a sort of improvement, though it is slow, in terms of institutional access to schooling; however, severe problems have been noticed concerning other goals. For instance, 250 million children were reported to lack minimum standards in learning mathematics and reading, and 100 million children left school before completing the primary level. Other statistics showed that adult illiteracy has dropped only by 4% after 15 years of launching the program. Consequently, UNESCO's World Education Forum held another conference in Korea in 2015. This conference announced that only "a third of countries reached global education goals." This state of fact leads to adopting a new set of other principles to replace the EFA goals, culminating in setting a new global education agenda (Bianco, 2017, pp.1-2).

This new global education agenda is named Education 2030 by UNESCO. It has a relationship with a broad socio-economic aim of sustainable development. Hence, it was considered in September 2015 as Goal 4 (quality education) of the 17 Sustainable Development Goals (SDGs) all over the UN system. The fundamental objective of this new approach is to 'ensure inclusive and equitable quality education and promote lifelong learning for all. UNESCO has described it as 'ambitious' and 'aspirational.' Its scope goes beyond education to encompass work skills, citizenship education, and lifelong learning (Bianco, 2017, p. 3).

The statistics revealed in Morocco during the EFA program show that the education situation has deteriorated at different levels (Vermeren, 2001, cited in Alalou 2018, p.14). First, dropout rates are very high. The national average for schooling in middle school is 87.6%, whereas it is only 61.1% in high school. Second, there is a sort of inequality in terms of access to schooling for children and girls living in rural and marginalized areas and disabled children. The average schooling for these categories is only 32.4%. Only 69.5% of children move from primary to middle school in rural areas. This number reduces to 30.6% in high school and doesn't exceed 21.9% for girls. This state of fact has been accounted for in terms of difficulty in learning basic skills and lack of pedagogical guidance for students (UNICEF Maroc). In addition, the World Bank report in 2011 showed that 74% of the pupils at the fourth-grade level lack fundamental knowledge in mathematics. Only 32% of fourth-graders are proficient in basic knowledge of the language, mathematics, and science. Moreover, recently more studies have been conducted showing that Moroccan students' levels are very low in terms of learning languages and Literacy (e.g, Benzahaf, 2017; Bouziane, 2018; Bouziane & Rguibi, 2018).

One of the specific recommendations that appeared in the World Bank Report in 2011 is to revisit and rethink the mediums of instruction used in the Moroccan education system (Zerrour, 2013). Thus the report calls for a reconsideration of the ways used to transmit knowledge to children in school and ensure that mediums of instruction be the same throughout the education system (Alalou, 2017, p.15). This point displays that the mediums of instruction are one of the issues that hinder the process of improving the quality of education in Morocco. According to Benson (2016), there are several studies (UNESCO 1953; Modiano 1974; OAU 1986) that confirm that 'Exclusive use of dominant languages for instruction has been criticized for decades as negatively impacting learners' access to knowledge, the quality of classroom teaching they are offered, the validity of the assessment of their learning, and any future

opportunities they may have for education or work'. In addition, other scholars, for example, Heugh (2011), showed that using a foreign language as a medium of instruction does not result in effective learning of that language (p.3). Thus the choice of mediums of instruction has a negative impact on the quality of education provided for learners.

In Morocco, on the one hand, there is a sort of inconstancy between the mediums used to teach at the primary level, the secondary level, and then the territory level. On the other hand, there is a gap between the official mediums of instruction, Standard Arabic and French, and the students' mother tongues, Moroccan Arabic, and Amazigh varieties. We assume that this gap negatively influences the students' learning outcomes, self-confidence, self-esteem, and integration in the classroom and the education system in general. Students' weak mastery and proficiency in the official mediums of the instruction block their epistemological access to knowledge and the curriculum in general. This state of fact casts doubt on the extent to which the Moroccan education system is going to provide an inclusive quality education for Moroccan students, given their differences in terms of their mastery of the official mediums of instruction, the absence of their mother tongues, the gap between the rural and the urban areas, and the difference in the students' social backgrounds (Benson, 2016). Therefore, the objective of this paper is threefold: a) Investigate the effects of using dominant languages as mediums of instruction on the students' learning outcomes, integration, self-confidence, and self-esteem, b) analyses the impact of dominant languages on quality, equity and inclusion for high school students and c) Probe into the role of mother tongues in promoting quality, equity, and inclusion in Moroccan public schools. In pursuance of this aim, the study addresses the following research questions: I) what are the effects of using dominant languages as mediums of instruction on high school science students? ii) How does the use of dominant languages affect quality, equity, and inclusion in Moroccan public schools? iii) How does using mother tongues in the classroom promote quality, equity, and inclusion in Moroccan public schools?

## 2. Theoretical background

Following Milligan et al. (2020), the theoretical foundation of this paper is based on three major points: a) language of instruction as a supporter or hinder of learning, b) language and identity and its impact on learning, and c) effects of dominant languages as mediums of instruction on learning.

### 2.1 Language of Instruction as a Supporter or Hinder of Learning

Across the globe, there are thousands, if not millions, of children who learn in a dominant language different from their own local language. This dominant language is usually considered foreign to the high proportion of the population, for instance, Portuguese for an increased number of Mozambicans, French for most Malians, or Standard Arabic or French for most Moroccans. Adopting these languages is often driven by two main assumptions. The first has to do with the relationship between proficiency in a global language and economic development, as is the case with opting for English as a medium of instruction in recent years (Casale & Posel 2011; Dearden 2014, cited in Milligan et al., 2020, p. 117). The second assumption is based on the idea that learning a language becomes easy when it is used as a medium of instruction.

Many recent studies have proven these assumptions, such as Mohanty 2009; Nomlomo 2009; Brock-Utne 2010; Heugh 2009; Desai 2010, among others. These studies reveal that adopting a dominant language as a medium of instruction adversely influences the learners' ability to 'both learn that language and access the wider curriculum.' The findings are very similar: "limited access to schooling, high repetition, failure, and dropout rates; poor quality of education; and low learner self-esteem. In addition, Walter (2008) has displayed that there is 'a distributional relationship' between learners' access to education in their first language (L1) and the level of national development. He showed that countries that do not support access to L1 education encounter the lowest levels of literacy and education attainment across the world. This argument goes hand in hand with the 'learning crisis' recognized by UNESCO in 2014, in which shocking results were released indicating that 250 million children lack access to basic numeracy and literacy skills in any language, even by the end of grade 4 (Milligan et al., 2020, p. 118). Therefore, the language of instruction plays a primordial role in facilitating or hindering learning.

## 2.2 Language and Identity and Its Impact on Learning

According to Milligan et al. (2020, p. 118), the fact that language plays a significant role as a marker of identity means that it significantly influences one's self-esteem and self-confidence depending on the language(s) with which one identifies. Students' languages can be useful to enhance their attainment of the learning outcomes by mobilizing different resources inside the classroom, which would establish or create a link between their language, identity, and learning. Cummins (2006) wrote an interesting paper on using the multiliteracies pedagogical approach to developing texts. He investigated the employment of multimedia to assist students in a school in Canada to create what he calls 'identity texts.' Motivating students to invest in their identities help them become bilingual resources. It is essential that learners feel proud of their identities to make learning moves smoothly from familiar to less familiar.

## 2.3 Effects of Dominant Languages as Mediums of Instruction on Learning

Mother tongues are down-graded in favor of dominant languages based on the assumption that the latter guarantee both equity and efficiency for the learners. The advocators of dominant languages argue that mother tongues limit students' horizons, whereas the dominant ones offer them tremendous opportunities to succeed in the future. However, this approach has been proved to stand against the notion of equity. The case of Post-Apartheid South Africa is a vivid example that using a dominant language as a medium of instruction forms a real hindrance to equity (Milligan et al., 2020, p. 119).

Using a dominant language as a medium of instruction adversely impacts the notion of equality regarding the educational opportunities provided for learners, especially from poor contexts. Several studies have proved its negative influence on girls (Hovens 2002; Benson 2005), learners belonging to poor socio-economic groups (Fleisch 2008; Smith 2011), poor urban areas, and remote rural areas (Benson & Wong 2017), etc. It is essential to note that the gap between the learners owns language and the mediums of instruction is no longer an issue only in developing countries and developed ones due to globalization and the massive international immigration. It has become a problem because it widens the gap between people from dominant groups and the others from non-dominant ones. Nevertheless, the severity of the issue is high in poor and ex-colonial countries because there is a big difference between the

local languages and the official mediums of instruction. In these countries, the situation is worse due to the existence of other problems, besides the issue of mediums of instruction, such as health and safety issues, low levels of teacher education, content-heavy and inappropriate curricula, and lack of adequate school facilities (Milligan et al., 2000, p.119).

Despite the negative impacts of using dominant languages as mediums of instruction on the quality of education, adopting mother tongues instead of dominant languages is always rejected. Why is it always the case? Simply because the issue of mediums of instruction is rarely tackled from a pedagogical view but rather from political, economic, and cultural ones. The overall objective of the supporters of dominant languages is to legitimize a monoglossic ideology and to reject multilingualism. Their arguments are based on three main assumptions. For instance, in South Africa, the NEPI Report reveals that economically using different languages requires a big budget, it is too costly; politically, a multilingual country needs a single unified language and culturally, using different languages entails fueling ethnic rivalry (Milligan et al. 2000, p. 119).

The validity of these assumptions is questionable, given the counter-arguments of different studies. At the political level, Milligan et al. (2020, p.120) argue, following Bamgbose (1991), that in a multilingual setting, integration is easy for citizens who are proficient in two or more languages than those skilled in one language. However, that language is the dominant or official language. In addition, new research reveals that accessing the job market demands multiple language skills (Duchene and Heller 2012). Moreover, other scholars claim that multilingualism is the true lingua franca of a globalized world (Prah and Brock-Utne 2009; Benson & Elorza 2015). At the economic level, Milligan et al. (2020, p.120) assume that, for example, in the case of South Africa, the need for a language, like English, that would facilitate communication among a large number of people in society and to make them interact with the outside world is very accurate. But, this fact is not enough to be 'the basis for language-in-education- policies for speakers of African languages who might never have the opportunity to go beyond their local village or township if they are denied meaningful access to education. Concerning the cultural level, based on May (2004), Milligan et al. contend that language is not the only factor that separates people in society. However, other factors such as class inequalities, distribution of resources, and power relations lead to problems between groups in a community.

## 2.4 Mediums of Instruction in Morocco

In recent years, the Moroccan education system has seen a controversial discussion about the issue of mediums of instruction or which language languages should be used to teach in Moroccan schools. The adoption of the Arabization policy after the independence proved wrong due to the adverse impact of this policy on the quality of education and many other associated problems such as unemployment and dropping out of school. Therefore, Morocco adopted a new policy in 2000, in which more emphasis is laid on foreign languages, especially French. The latter was reinstated in 2016 as the language of instruction for science subjects, replacing Arabic. In the following, we will try to present a historical overview of mediums of instruction in Morocco and explain the reasons behind adopting different languages and the factors that lead to their demise and adoption and reinstatement of others.

Historically speaking, the languages used in Morocco as mediums of instruction (MOI) can be tackled in terms of three major phases: a) pre-colonial phase, b) colonial phase and c) post-colonial phase.

### Pre-colonial phase

The pre-colonial phase can be divided into two major periods. The first is related to the early invasions of different powers such as Romans to North Africa due to its strategic place alongside the coasts of the Mediterranean Sea and the Atlantic Ocean. These powers brought with them different languages and cultures which interacted and co-existed with the Amazigh language for centuries. This made the region have cultural diversity. However, the influence of these early invaders was limited (Alalou, 2018, p.3).

The second period dates back to the arrival of the Arabs from the Middle East in the 7th and 8th centuries. The Arabs brought with them a new religion -Islam and a new language- Arabic. Although there was great resistance from the Amazigh people, the Arabs succeeded to control and dominate the region. Hence, they made Islam and Arabic spread across the entire region by establishing religious institutions. The form of education prevalent in this period was mainly traditional and religious-oriented. The koranic schools used classical Arabic to teach the Koran and the principles of Islamic education (ibid).

The traditional Koranic schools were most often criticized in terms of their lack of good teaching conditions because the teaching of students took place in rooms that lacked access to electricity and air circulation. The teaching materials are almost absent. The students use a wooden board named 'Louha' to study and memorize Koranic verses. Ibne Khaldun, the North African sociologist, and historian, in his well-known book, Muqqadimah, mentioned that the teaching methods implemented in these schools were very traditional and anti-pedagogical. Beginner students were enforced to study advanced concepts of science at an early age (Alalou, 2018, p.4). In Morocco even up to now, this type of education still exists. In rural areas, a large proportion of children go to the mosque to memorize Koran at the age of three or four years before they join the primary school at the age of six years. However, in the recent years after the integration of pre-school in the Moroccan formal education system, the number of children attending mosques has been declined even in rural areas.

### Colonial Phase

France policies adopted in Morocco after its occupation of the Moroccan land in 1912 were based on its previous experience in Algeria, Tunisia, and Madagascar. France built its reformation on the ideology of modernization. Hardy (1921 cited in Alalou, 2018, p.8) revealed that France's strategy was to convince Moroccans that its modernization policies were to their benefit. French authorities focus was on bringing modernization alongside preserving Moroccans traditions, customs and ways of living, as stated by Hardy:

> We will [the French…] modernize them, eliminate their traditional institutions and being aware that we are more advanced than they are in practical matters, would we need to make them like us? Such a proposal would be the result of a narrow minded view…...in other words; assimilation seems to be a lamentable utopia [… [ ] and] not everything is bad in the civilization of Arab-Berbers. (Alalou, 2018, p. 8)

According to Alalou (2018), Hardy's project was meant to differentiate between two goals of education: one is addressed toward the elite and the other to the masses both using French but different in terms of aims and curricula. Harday's project explained the colonial objective behind using French as the medium of instruction in Moroccan schools. The elites 'would be trained to manage and the masses learn the regular trade such as carpentry, welding, etc.'

### Post-colonial phase

This phase dates from the 1956 up to now. The Moroccan education system has seen radical changes in terms of mediums of instruction. One of the most controversial and debatable decisions taken in this period is the adoption of Arabization policy immediately after independence. So, what are the reasons behind this policy? And what are its consequences and outcomes?

Morocco adopted Arabization as a policy after independence as a strategy to establish a new Moroccan education policy, in which Arabic is the only medium of instruction. This new policy is based on a monoglossic ideology 'one nation, one language, one identity. The nationalists sought to hit two birds with one stone: first, do away with the remnants of the French colonizer as French would be replaced by Arabic in the education system. Second, set the ground for a new identity, which makes them different from the colonizer and legitimizes 'their claim for national leadership' (Alalou 2018; Moustaoui 2018). The new policy promotes Arabic as both a symbol of the nation and a identity marker. In contrast, local languages are ignored and degraded.

Education reforms in Morocco started in 1956. They were launched with the appointment of Mohamed Elfassi as a minister of national education. These reforms began with two objectives: a) generalization of education to reach a large proportion of people, and b) Arabization of education. Elfassi left office in 1958 before his plan put into action due to lacking a planning strategy and trained teachers in Arabic.

The Royal Commission for the Reform of National Education added two other goals to the ones mentioned above. These new goals were targeting unifying public education by merging the traditional and modern systems and replacing French educators and teachers with Moroccan ones.

The degree of the attainment of these objectives differs from one to another. Concerning the generalization of education, it is true that in terms of institutional access to education, there is a considerable improvement, but a big number of people either lack access to education or are educated in poor conditions. Almost 40 percent of the population is still illiterate in Morocco. This number is considered the highest in the Arab World (Tawil, Cerbelle, & Alama 2010, cited in Alalou 2018, p. 11). Second, regarding the Moroccanization of human resources, it seems that this goal has been met to a large extent. Third, according to Alalou (2017), the aim of unifying the public education is still in progress. Fourth, the last objective represented in the policy of Arabization is very complex because even though the state succeeded to Arabize primary and secondary education, but it has failed to do so in higher education. As well as, this policy has had adverse impact on the education system as a whole.

Arabization, in effect, has led to negative outcomes. Its failure made a number of scholars to call for immediate change. For instance Vermeren (2001, cited in Alalou, 2018, p. 14), delineated Moroccan educational system as 'a social disaster that need immediate remedy'. This harsh description stems from the lack of quality education, high percentage of illiteracy, and absence of job opportunities for the new university graduates. In addition, according to Alalou (2018, p.14), Arabization denigrates multilingualism and multiculturalism as it supports the monoglossic ideology. Other scholars such as Laabi (2003) revealed that this policy made the spread of fundamentalist ideas among youths easier.

The statistics released by the World Bank Report in 2011 confirmed more the failure of Arabization policy. The report revealed that 74 percent of the pupils at the fourth-grade level do not master basic knowledge in mathematics, and only 32 percent of fourth-graders are proficient in basic knowledge of language, mathematics and science. In addition, there is a wide gap between urban and rural areas in terms of access to education. Moreover, gender inequality, absence of pedagogical supervision, and a high number of dropout rates are all problems that form real challenges for the Moroccan education system (Alalou 2018, p. 15).

To overcome these problems, the World Bank Report (2011) made a range of recommendations. Of the most important ones was the necessity of rethinking the mediums of instruction across the Moroccan education system. This recommendation shows that the decline in the quality of education in Morocco is the result of adopting Arabic as the language of instruction. As a reaction to this situation, Morocco decided to reinstate French as a medium of instruction on 16 February 2016.

The reinstatement of French is undertaken under the belief that it is a solution to promote quality education in Morocco. However, the decision seems to be taken without putting into consideration the real status of the language in Moroccan schools. Due to the implementation of Arabization policy for decades, both teachers and students seem to lack mastery of basic skills to teach or to be taught using French. This state of fact exacerbates more the learning crisis in Moroccan schools because students' epistemological access to the curriculum is hindered while using a language which they do not master. In addition, it results in inequality between the public and the private sector and between students from different social backgrounds.

## 3. DATA AND METHODOLOGY
### 3.1. Context and participants

Data for this study were collected in a Moroccan public high school called Al-Jadida High School in Ait Ourir in the region of Marrakech-Safi. The participants are students and teachers of High school. The number of students is 200. 53% of them are female while 47% are male. The majority of students' age ranges between 15 and 17. Given the Amazighophone nature of the region, 60% of students' mother tongue is Amazigh while 40% is Moroccan Arabic. As far as teachers are concerned, they are 20 in number. 70% of them are male. The age of 40% of them is between 30 and 49 years old. 60% of them are Amazighophone speakers.

### 3.2. Instrument

This study has adopted a mixed-method design. A questionnaire has been addressed to students and an interview has been held with teachers. The questionnaire is composed of a set

of close ended questions targeting five main sections: the students demographic background, their level of proficiency in Arabic and French, their language practices inside the classroom, the problems they face when they use Standard Arabic or French in the classroom, and their opinions about using mother tongues in the classroom. These questionnaires have been written in English and then translated into Standard Arabic to facilitate students' answering of the questionnaires. Regarding the interviews with the teachers, we tried to keep the questions addressed to the teachers targeting the same sections mentioned above. The teachers were given more freedom to express their attitudes about using French or Standard Arabic in the classroom and detect the sort of challenges face both the students and the teachers.

### 3.3. Data collection

Regarding the questionnaires, the students were asked to fill in them inside the classroom. They were given 20 minutes to complete them with the assistance of one of my colleagues. The interviews with the teachers, in contrast, were held individually.

### 4. FINDINGS

The findings of the study are organized into four main sections: the first analyzes the level of proficiency in Standard Arabic and French. The second examines language practices in the classroom. The third investigates the Problems associated with using French or Standard Arabic in the classroom as mediums of instruction. Finally, the fourth section probe into the use of mother tongues in the classroom.

### a. Students' questionnaires
#### 1. Proficiency in Standard Arabic and French
(Graph 1)
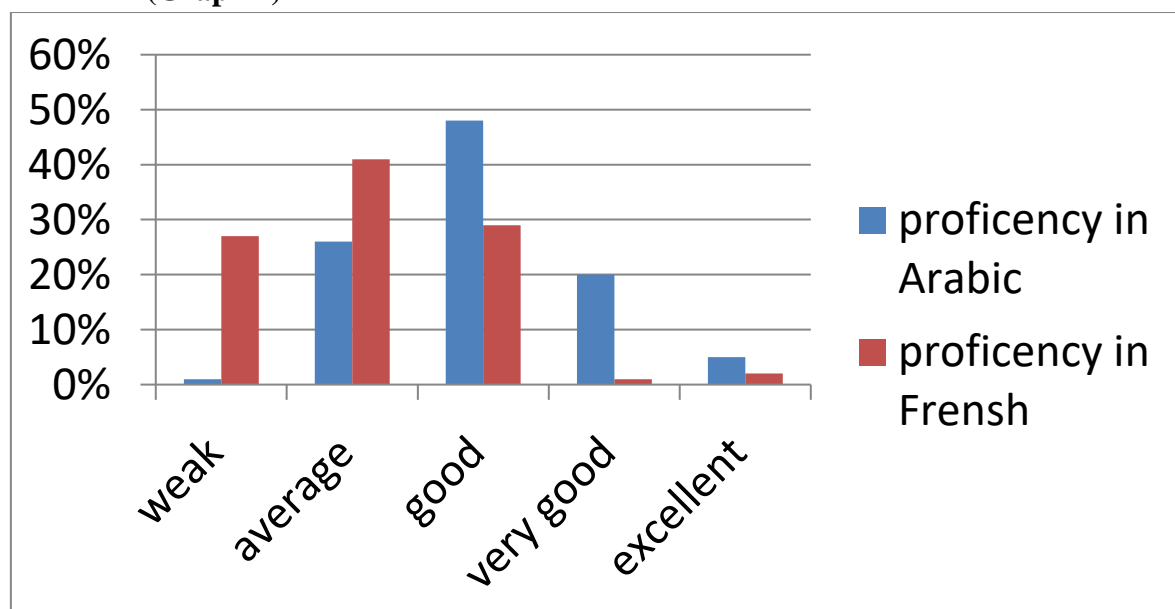


As the graph (1) indicates, students' levels in Standard Arabic and French seem to be different. 48% of students revealed that their level in Standard Arabic is good whereas it is 28% for French. The majority of students showed that their level in French ranges between weak (27%) and average (41%); however, for Standard Arabic a high proportion of students' level is between good and very good (68%).

### b. Language practices in the classroom

**Languages preferred to be used in the classroom**

**(Graph 2)**
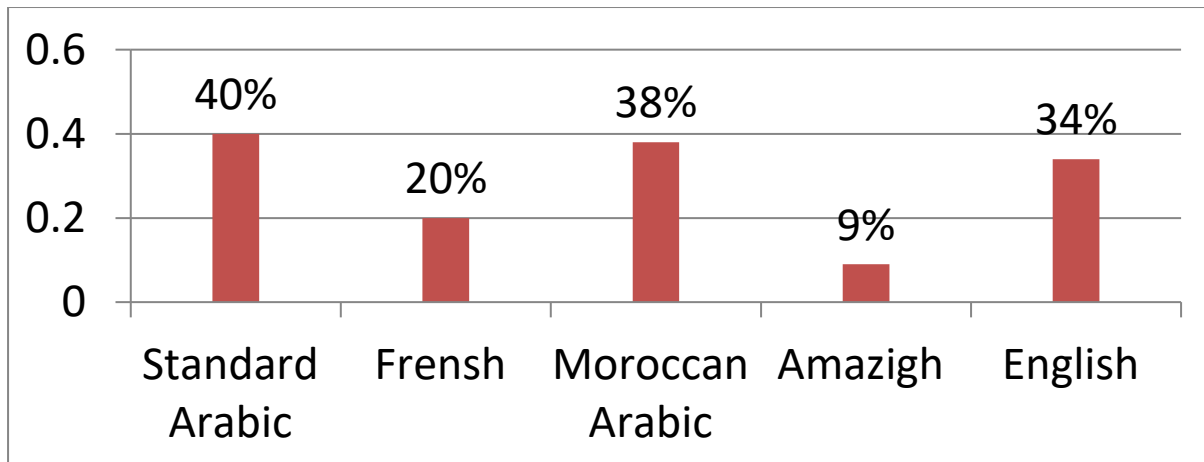


This graph reveals that students prefer to use various languages inside the classroom. Standard Arabic comes at the first place by 40%, Moroccan Arabic in the second place by 38%, English in the third place by 34%, then French is preferred by 20% of students, and Amazigh comes at the last position by 9%. These results show that students do not stick to the official mediums of instruction in the classroom, but they use other languages. However French is the language used to teach scientific subjects, but the number of students selected it as their preferred language is only 20%.

### a. Languages used with the teacher inside the classroom

**(Graph 3)**
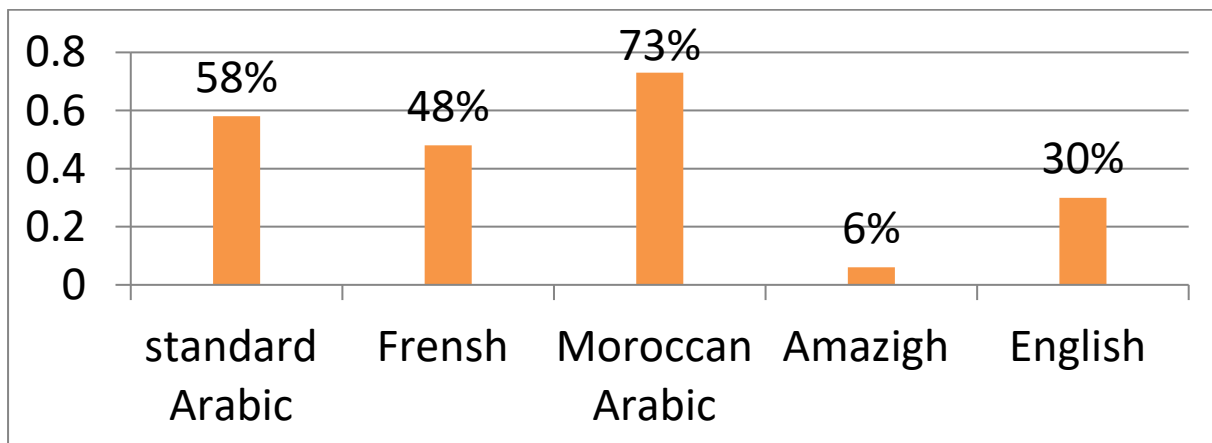


Regarding the languages used with the teacher inside the classroom, the above graph demonstrates that Moroccan Arabic is the language widely used by students (73%). Compared with the other languages, Standard Arabic is utilized by 58%, French 48%, English 30%, and Amazigh 6%. These results prove that Moroccan Arabic is the lingua franca inside the classroom. The students' use of the official mediums is limited to answering classroom tasks.

### b. Languages students use with their peers inside the classroom

**(Graph 4)**
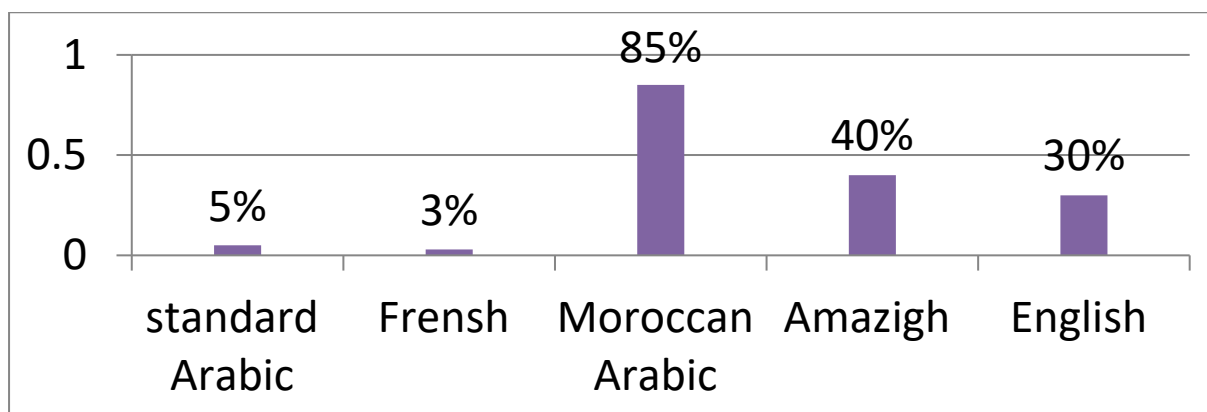


As it is shown in the chart above, the language mostly used by students inside the classroom is Moroccan Arabic. 85% of students revealed that they use it to communicate with their peers. Amazigh comes at the second place by 40%. Official mediums are hardly used between students. So, these results confirm that students' use of official mediums is restrictive to deal with the teaching exercises and activities.

2. **Problems associated with using Standard Arabic or French as mediums of instruction**
    a. **Does using Standard Arabic as a medium of instruction affect negatively your learning outcomes?**
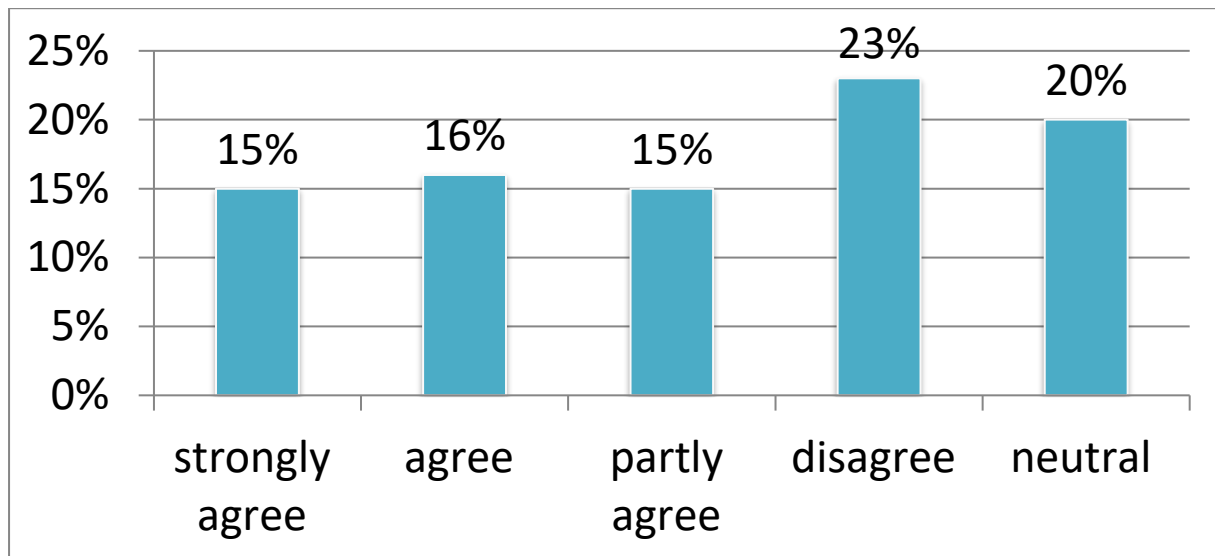
**(Graph 5)**
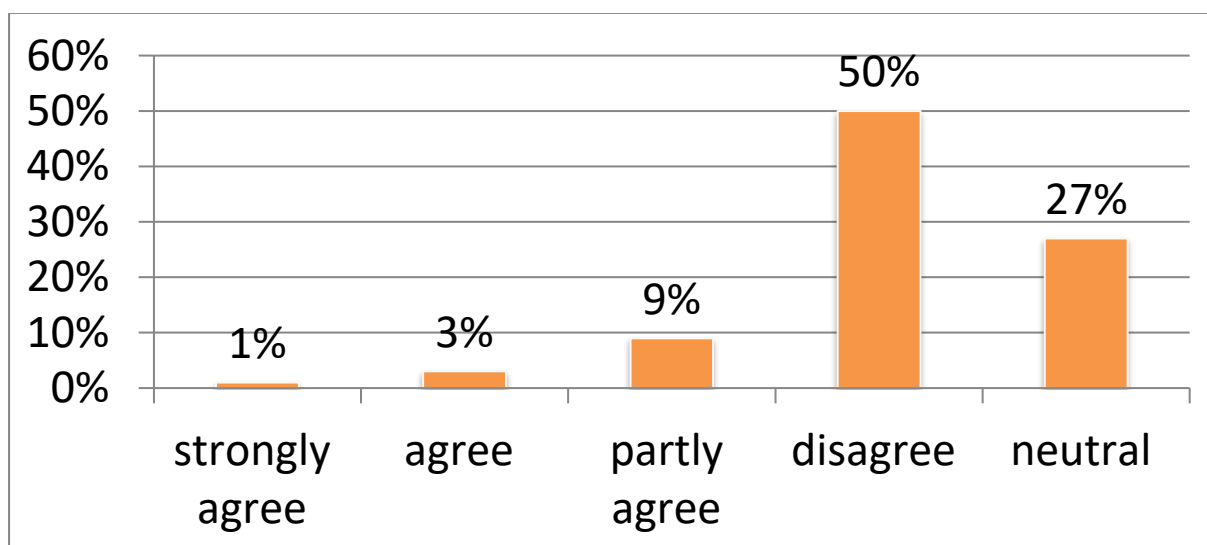


The objective underlying this question has been to have an idea about students' opinion about whether using Standard Arabic has a negative effect on their learning outcomes. The results reveal that 50% disagreed with this point, followed with 27% who are neutral, others either partly agree, agree or strongly agree, their percentages being (9%), (3%) and (1%), respectively.

b. **Does using French as a medium of instruction affect negatively your learning outcomes?**

**(Graph 6)**



The results presented in the above graph demonstrate that a high proportion of students admit that using French as a medium of instruction has adverse impact on their learning outcomes. 46% of students' attitudes range between strongly agree and partly agree. Only 23% disagree that using French affect negatively their learning outcomes, whereas 20% are neutral.

c. **Which problems do you face when Standard Arabic or French are used as mediums of instruction?**

| | Standard Arabic | French |
|---|---|---|
| **Lack of understanding of the content of the lesson** | 8% | 44% |
| **Lack of participation and interaction in the classroom** | 17% | 40% |
| **Inability to communicate with the teacher** | 15% | 36% |
| **Loss of motivation to learn** | 12% | 22% |
| **Loss of self-confidence** | 9% | 20% |
| **Lack of integration in the classroom** | 8% | 32% |
| **The gap widens between the student and the teacher** | 11% | 28% |
| **Lack of any problems** | 36% | 11% |

This table represents the students' results regarding the problems and challenges they face when using French or Standard Arabic as mediums of instruction. On the one hand, 36% of students showed that using Arabic does not create any problems for them. They find it very useful and practical in the classroom. Only 8% of students revealed that SA hinders their attainment of the learning outcomes, 17% showed that using it affect negatively their participation and interaction in the classroom and 15% agree that using it by the teacher stumbles the communication process between the students and the teacher. Other problems associated with motivation of students to learn (12%), their self-confidence (9%), their integration and engagement in the classroom (8%) and the relationship between them and the teacher (11%) are also influenced by the use of SA as a MOI.

On the other hand, the results in the table prove that using French as MOI create a set of problems for a high proportion of students. According to the table, only 11% of students say that French is not a challenge for them. However, 44% of them admit that they do not

understand the content of the lesson due to using French as a MOI. 40% of students reveal that it has an adverse impact on their participation and interaction in the classroom. Moreover, it results in other problems for students such as lack of communication with the teacher (36%), loss of motivation to learn (22%), loss of self-confidence (20%), difficulty in integration in the classroom (32%), and the widening of the gap between the teacher and the students.

### 3. Using mother tongues in the classroom

a. **To what extent do you agree with using mother tongues in the classroom?**

**(Graph 6)**
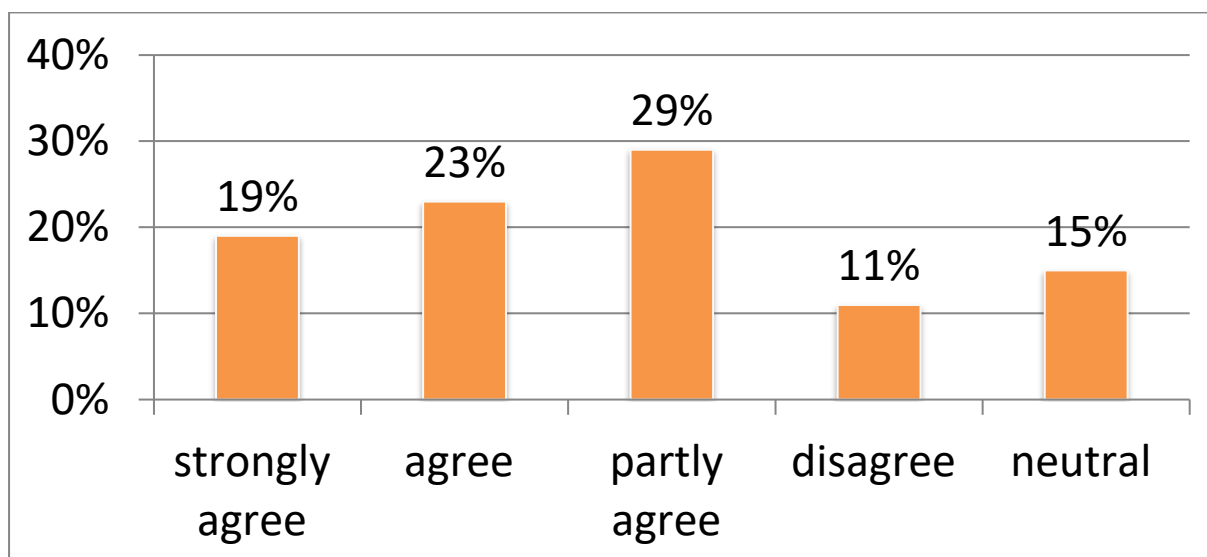
The purpose of this item is to detect students' attitudes about using mother tongues in the classroom. The results demonstrate that the majority opted for 'partly agree' with a percentage of (29%), followed by those who agree (23%), strongly agree (19%), neutral (15%), and disagree (11%).

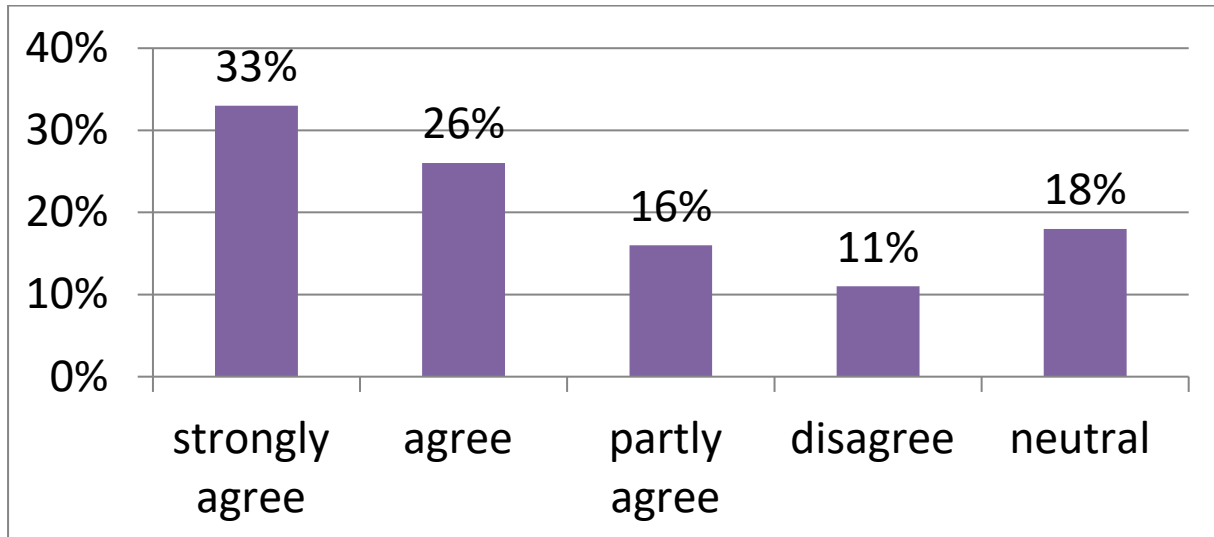b. **Does using mother tongues as mediums of instruction affect positively your learning outcomes?**

**(Graph 7)**
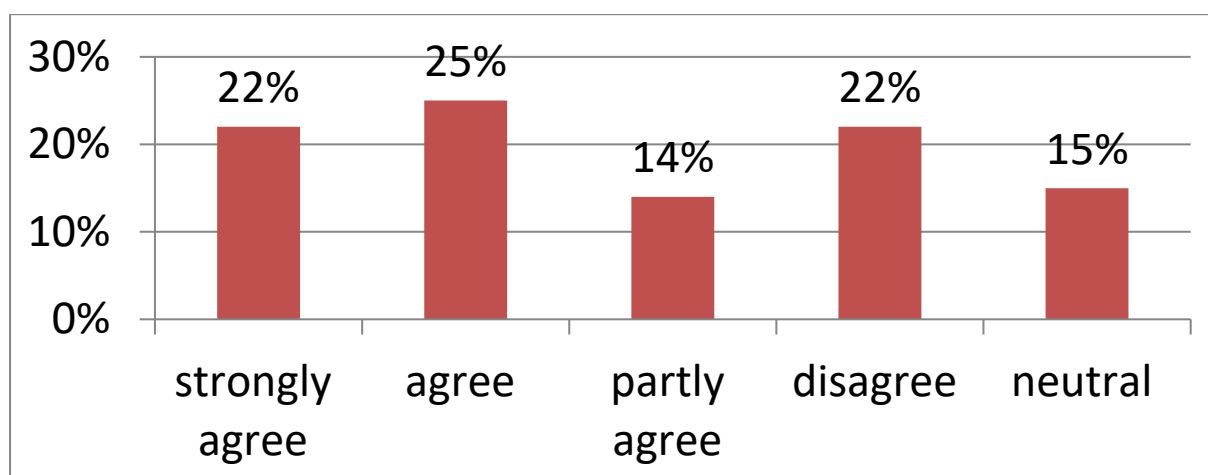
This question targets students' attitudes about whether using mother tongues as mediums of instruction has a positive impact on their learning outcomes or not. The graph denotes that the majority of students' attitudes are positive; (25 %) agree, (22%) strongly agree, and (14%) partly agree. However, the number of students who disagree is only (22%).

c. **Does using mother tongues as mediums of instruction make you proud of your own culture?**

**(Graph 8)**



This question attempts to see students' opinions about whether using mother tongues as mediums of instruction makes them proud of their cultures. As is represented in the chart a high proportion of students strongly agree with this point, with a percentage of (33%), followed by those who agree (26%), neutral (18%), partly agree (16%) and finally disagree (11%). This state of fact shows the importance of mother tongues, their attachment to the students' cultures, and their roles to link knowledge to the real world and give it meaning.

d. **Does using mother tongues as mediums of instruction make you proud of your own identity?**

**(Graph 9)**
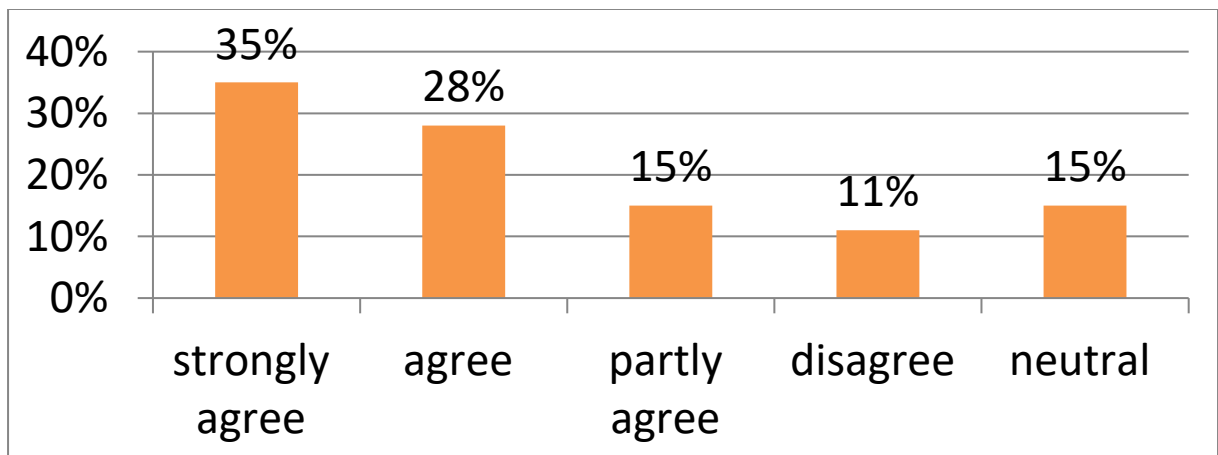
Regarding the question of identity and mother tongues, the graph above displays positive results about the role using mother tongues as MOI play to make students proud of their identities. As it is clearly shown the number of students who strongly agree with this point is higher than the other items, with a percentage of (35%). This implies that using mother tongues in the classroom is essential to inject self-confidence in students and boost their self-esteem.

### e. How does using mother tongues as mediums of instruction help you?

| | |
|---|---|
| Understand the content of the lesson | 68% |
| Integrate in the classroom | **48%** |
| Facilitate communication in the classroom | **63%** |
| Feel very motivated to learn | **42%** |
| Improve your self-confidence | **41%** |
| Boost your self-esteem | **39%** |
| It has a negative impact | **6%** |

This table shows the usefulness of adopting or integrating mother tongues as MOI. The results reveal that mother tongues are useful in many ways. First, 68% of students prove that mother tongues help them to understand the content of the lesson. Second, almost half of the students (48%) showed that it facilitates their integration in the classroom. Third, it plays an essential role to make communication easier inside the classroom (63%) - student to teacher and student to student. Fourth, it creates a positive and stimulating learning atmosphere. This increases students' motivation to learn, as has been indicated in the chart, (42%) of students revealed that using mother tongues as mediums of instruction makes them feel very motivated to learn. Moreover, according to the chart, 41% of students prove that using their mother tongues as MOI helps them improve their self-confidence and 39 % showed that it boosts their self-esteem. Yet, it should be noted that only 6% of students said that using mother tongues as MOI has a negative impact.

### B. Interviews with teachers

As mentioned before the teachers were interviewed individually. The discussion was mainly on the four major points included in the questionnaires distributed to students. The purpose is to have an idea about the teachers' attitudes about French and Standard Arabic as the two official MOI and to compare the results obtained from students' questionnaires with teachers' answers.

### a. Proficiency in Standard Arabic and French

The results reveal that there is a sort of difference in terms of teachers' mastery of Standard Arabic and French as presented in the chart below:

| | Excellent | Very good | Good | Average | Weak |
|---|---|---|---|---|---|
| Standard Arabic | **3** | **10** | **7** | **00** | **00** |
| French | **1** | **1** | **6** | **10** | **2** |

Concerning Standard Arabic, the participants' levels range between excellent and good. Half of the teachers said that their level is very good. Whereas, in terms of French the majority mentioned that their mastery of the language is between weak and good. The average item is higher than the other ones; 10 participants said that their level is average. These results imply that the reinstatement of French for teaching scientific subjects didn't take into consideration the levels of teachers in this language. Using a language as a medium of instruction requires a high level of mastery from both parts: students and teachers. Otherwise, transmitting knowledge and accessing knowledge would be adversely affected.

### b. Language practices in the classroom

The discussion with the teachers shows that they use a mixture of languages inside the classroom. They do not stick to the official mediums of instruction, but they integrate students' mother tongues for many reasons. Some teachers pointed out that due to the low level of students in the official mediums and the lack of interaction, they usually use Moroccan Arabic to make knowledge accessible to students and integrate them. So, most of the teachers revealed that the use of Standard Arabic and French is limited to presenting scientific terms and writing the lesson on the board, but the explanation of the lesson and the providing of examples take place via Moroccan Arabic. In addition, a mathematics teacher showed that using French as a medium of instruction creates another barrier for students in the sense that they face two challenges: one is associated with the language of teaching and the other related to the subject itself. The fact that students struggle to understand French complicates their attempts to overcome the difficulties they face in the mathematics subject**.**

### c. Impact of using standard Arabic or French as mediums of instruction

Similar to the results found regarding the impact of using Standard Arabic or French as MOI in students' questionnaires, teachers confirm that these two official mediums of instruction influence in a negative way the teaching-learning process. The majority of teachers agreed that they encounter a set of challenges when using SA or French such as students find it difficult to understand the content of the lesson, there is a lack of communication and interaction in the classroom, students seem unable to communicate with the teacher, students lose the motivation to learn, students do not integrate into the classroom, and the teachers feel that there is a gap between them and the students. The discussion with the teachers showed that these challenges are more problematic in French medium classes because students' levels are very low. So, this leads to their aversion to the subject just because of the use of French as a medium of instruction.

### d. Mother tongues use in the classroom and their benefits

Teachers admitted that the use of mother tongues in the classroom is a fact. Moroccan Arabic is more used compared with the Amazigh language. This goes hand in hand with students' results, which showed that 73% of students revealed that they use Moroccan Arabic in the classroom.

The discussion with the teachers showed that they use mother tongues because they are beneficial in a number of ways. First, they help students grasp more the content of the lesson. Second, they facilitate their integration in the classroom. Third, they make the communication process easy in the classroom. Fourth, they inject more motivation into students and boost their self-esteem. Fifth, they improve their self-confidence. Sixth, they make students proud of their

cultures and identities. Finally, using mother tongues gives sense to knowledge and allows teachers to establish a relationship between knowledge and reality.

Some teachers, however, rejected the idea of using the mother tongues in the classroom based on the assumption that mother tongues are students' innate languages, they acquire them at home and use them in their houses and in the street. But at school they should master Standard Arabic because it is the language of the Koran. Using it as a MOI helps students to master it. It has an added value to students because it is one of the most important languages in the world. As well, it is the language of our Arabic and Islamic heritage and a language of science par excellence.

## 4. DISCUSSION
### a. Negative impact of official mediums of instruction

The central aim of this paper is to prove that the gap between the languages used at school and students' home languages has adverse impact on the students' learning outcomes, integration, self-esteem and self-confidence. Hence, the notions of quality, equality and inclusion are challenged in the Moroccan public schools.

The results show that using Arabic or French differ in degrees of their impact on the learning outcomes, integration, self-esteem and self-confidence of students. Concerning Arabic, 50% of students disagreed that using Standard Arabic as a medium of instruction affects negatively their learning outcomes. This is supported by the fact that almost 70% of students revealed that their mastery of Arabic ranges from good to very good. That's why 40% of them choose to use it as their preferred medium of instruction. In contrast, the case of French is somehow different, 45% revealed that using it as a medium of instruction affects their learning outcomes. Almost 68% of students showed that their level in French ranges from weak to average. Hence, only 20% of students selected it as their preferred medium of instruction.

More support for this result is drawn from the problems students face when Standard Arabic or French is used in the classroom. The students' answers reveal that they encounter the following problems:

- ✓ Lack of understanding of the content of the lesson;
- ✓ Lack of participation and interaction in the classroom;
- ✓ Inability to communicate using the two official mediums of instruction;
- ✓ Lose of motivation to learn;
- ✓ Loss of self-confidence;
- ✓ Difficulty in integration within the learning process;
- ✓ Feeling that the gap widens between the student and the teacher;

Regarding these problems, French seems to be more than Standard Arabic. For instance, 44% of the students revealed that using French hinders their understanding of the lesson compared with 8% For Standard Arabic. This difference between Standard Arabic and French can be accounted for in terms of two ways. First, the level of students in Standard Arabic is more than in French. Hence, they feel at ease when using it as a medium of instruction. Second, the fact that French has just been reinstated as a medium of instruction in 2016 creates problems

for students because they are used to studying scientific subjects in Arabic. So, the use of French blocks their access to and understanding of the content of these subjects.

This point highlights one major issue associated with mediums of instruction in the Moroccan education system. The absence of constancy between the mediums used in primary, secondary, and tertiary levels. This creates problems for both teachers and students. On the hand, in the case of French, teachers find themselves obliged to use it to teach scientific subjects even though their levels do not allow them to do so because they are used to teaching in Standard Arabic. So, this has a negative impact on their performances inside the classroom.

On the other hand, students, as well, feel frustrated when a language they do not understand is utilized to teach them. This stands as a barrier for them. They no longer struggle to understand the content of the curriculum, but they strive to overcome their weaknesses in the language used as an MOI.

Teachers' results fall in the same stream as they revealed that using pure Standard Arabic or French has a negative impact on the students' learning outcomes. The teachers showed that in their practices they regularly use code-switching either from standard Arabic to Moroccan Darija or Amazigh or from French to Moroccan Darija or Amazigh. Teachers revealed that using Standard Arabic or French to a larger extent makes them face the same problems mentioned above-concerning students.

The results obtained from students' questionnaires and teachers' interviews about the use of mother tongues in the classroom demonstrate that Moroccan Arabic and Amazigh play a key role and have a positive influence on students' attainment of the learning outcomes, participation in the classroom activities, self-confidence, and self-esteem. Almost71% of students agreed to use their mother tongues in the classroom. Both students and teachers confirmed that the utilization of mother tongues in the classroom is beneficial in a number of ways, as they help them:

- ✓ understand the lesson by providing vivid examples from real life;
- ✓ Integrate into the classroom because using the mother tongue makes them feel relaxed;
- ✓ Facilitate communication in the classroom;
- ✓ Feel motivated to learn;
- ✓ Boost self-esteem of students;
- ✓ Improve self-confidence of students;
- ✓ Make students proud of their identities and cultures;
- ✓ It gives sense to knowledge through making a connection between knowledge and reality;
- ✓ Make students' access to knowledge easy;

Comparing the results of this study with the results of other studies lends more support to our claim that using dominant languages affect negatively the students' learning outcomes, integration, self-esteem, and self-confidence. The fact that the issue of mediums of instruction is more problematic in poor and post-colonial countries because there is a large gap between the official languages used at school and the learners' local languages (Milligan et al., 2020,

p.119) pushes some countries especially in Africa to conduct studies to find solutions to reduce this gap and to provide quality education for learners. Among the countries which took the initiative at this level, we see South Africa and Rwanda.

Regarding South Africa, theoretically speaking, the country seems to be among the first countries which adopt and promote multilingualism. Its official recognition of 11 languages has been described as 'progressive, liberal, and unique (Milligan et al., 2020, p.123). However, investigation of language policy in practice shows that African languages are still denigrated; their use is restricted to specific domains. The education sector is a vivid example. Indeed, the South African department of education's language in education policy declared in 1997 that schools are free to choose any official languages as mediums of instruction, but this policy has no reflection in reality. Most schools in South Africa adopt English as the sole language of teaching and learning after grade three, especially in terms of assessment practices (Milligan et al., 2020, p.123).

The multilingual policy in South Africa seems to lack support at the practical level because choosing other languages as MOI requires the necessary infrastructure in terms of teacher training and materials. As a result, students and teachers face severe challenges in coping with English use because they don't master it. Given this context, a Language of Instruction project in Tanzania, and South Africa (LOITASA) was undertaken. It is a longitudinal study spreading over three years and involving two primary schools in an urban township in the Western Cape. Its purpose was to investigate whether the switch to the mother tongue would benefit the learners in terms of attaining knowledge in science and geography and learning English.

According to Nomlmo (2008), the findings of this project are positive. First, In terms of science, learners showed high self-esteem and better confidence as they took part in classroom activities using their mother tongues. As well, learners were very spontaneous in answering teachers' questions, and they were able to express themselves clearly in their mother tongue. In addition, their written productions were better than their counterparts who were taught in English. Moreover, the results regarding the learning outcomes reveal that learners in the isiXhosa-medium class are better than the others in the English-medium class. For instance, the pass rate in grade 5 for the isiXhosa class was between 70 and 86%. This goes hand in hand with Langenhoven (2010), who discovered, also in South Africa, that 'when pupils use their mother tongue to read and talk about a topic, they construct meaning, making sense of their world and thus generating a better understanding of scientific concepts instead of memorizing scientific facts' (Milligan et al., 2020, p. 124).

As far as Rwanda is concerned, English was established as the sole medium of instruction at all levels of the Rwandan education system in 2008. After three years, in 2011, there was a sort of modification through which Kinyarwanda was integrated alongside English as a medium of instruction. One major problem found in the Rwandan context is that both learners and teachers have low mastery of English. So, this hinders their epistemological access to the wider curriculum. To alleviate the effects of this gap, a project named Language supportive textbook and pedagogy has been adopted. It targets the primary grade four, the level where students switch to English-medium learning. The overall objective of this project is to

help students master English and to assist them in grasping new concepts through the use of language-supportive textbooks. Kinyarwanda is integrated through a set of spoken activities and glossaries of vocabulary in the textbooks. The objective is to facilitate learners' access to the new topics (Milligan et al., 2020, p. 126).

Interviews held with students showed positive results regarding the integration of Kinyarwanda in the textbooks. It contributes to promoting their epistemological access to the broader curriculum because the new words are explained in Kinyarwanda. In addition, the evaluation of this study showed that the language-supportive approach had a positive influence both on learners' outcomes and their levels of participation in the classroom (Milligan, Clog, & Tickly 2016, cited in Milligan et al., 2020, p. 126).

### b. Effects on quality, equity, and inclusion

This study shows exciting facts about the role mediums of instruction play in ensuring inclusive, equitable quality education for Moroccan students in Moroccan public schools.

First, the results obtained from this study imply that quality in the Moroccan classroom faces a range of problems. First of all, as has been shown above, students' levels in the official mediums of instruction, especially French, are deficient. So, this affects their epistemological access to the whole curriculum. Their weak level blocks their understanding of the content being presented to them in the mediums of instruction. Consequently, the attainment of the learning outcomes is negatively influenced. Hence, students' pass rates are very low, and their levels are not good.

The present study supports the claim that using French as a medium of instruction affects more than Standard Arabic the quality of education, but the statistics released before the reinstatement of French in 2016 cast doubt on this assumption. Error (2013), based on the World Bank Report (2011), mentioned that Moroccan education is in a critical situation. The report revealed that 74 % of the students at the fourth-grade level do not have the basic knowledge of Mathematics, and only 32 % of fourth-graders seem to master the basic knowledge of the language, mathematics, and science. This state of fact starts at the primary level, but it usually accompanies the learners to the secondary and tertiary levels. We assume that it is among the principal reasons that push students to drop out of school, leading to a high proportion of repetition in the three education levels. Therefore, even the use of Standard Arabic as a medium of instruction negatively impacts the notion of quality, even though students in this study seem to prefer it over French. The preference for Arabic might be based only on their ability to understand it, but whether it really guarantees quality education remains doubtful due to the black image associated with the Arabization policy in Morocco in the last few years.

Second, another major issue that challenges the notion of quality in Moroccan schools is using different languages inside the classroom. Both teachers and students use official mediums and, at the same time, mother tongues. So, this sort of language practice does not have solid pedagogical support. Teachers are forced to use a mixture of languages either due to their lack of mastery of the official languages or the low level of students. This stands against one of the reasons for adopting dominant languages as mediums of instruction because it is assumed that their learning becomes easy when used as mediums of instruction (Milligan et

al., 2020, p.117). But, since not only one language is used inside the classroom, the objective of learning the official medium becomes impossible, except for acquiring some scientific terms.

Concerning equity, this study displays that using dominant languages results in inequity inside and outside the classroom. Students differ in the mastery of the dominant languages. So using them as mediums of instruction creates a sort of stratification in terms of students' access to the curriculum. The level of the student in the language allows them either to be good in the school subject or to face severe difficulties in understanding the lessons and participating in the learning activities. Many high school students switch from science to literature because of their weak level in the dominant languages, especially French. Previous studies reveal that this was the case in higher education before the adoption of French as the medium of instruction for science subjects in 2016 in high school (Bouziane and Rguibi 2018, cited in Bouziane, 2020, p. 46).

Moreover, the discrepancy between the social backgrounds of students and the gap between the private and the public sectors foster inequity in the Moroccan educational system. They are using a language that only a few lucky students master excludes a number of students, especially in the public sector, from pursuing their studies in science streams. This state of fact alludes to the gap between policy and practice in the Moroccan context. Instead of providing equitable quality education for all students language in, education policies exacerbate the situation and create dichotomies between students belonging to different social backgrounds and between those belonging to the public sector and those belonging to the private sector.

As for inclusion is concerned, both students and teachers reveal that using the official mediums of instruction hinders the students' integration into the learning process. Among the factors that, in this case, the exclusion is more supported than inclusion: first, most students do not participate in classroom activities, especially in French medium classes. Second, most teachers and students reveal that using official mediums leads to a breakdown in communication between the teacher and the student. Third, students' motivation to learn and self-confidence are highly affected because they cannot understand and use the official mediums of instruction fluently. Fourth, as mentioned above, a student's aversion to the subject due to their lack of a medium of instruction affects their whole career. Instead of facilitating their integration, students are forced to change their direction from one stream to another, which they are implemented to study just due to the language barrier.

## 5. CONCLUSION AND IMPLICATIONS

This paper discussed the issue of mediums of instruction in Morocco. The central objective was to prove that Standard Arabic and French negatively impact the attainment of the learning outcomes, participation in the classroom, integration of students, self-confidence, and self-esteem. It has shown that using these languages creates a challenge to guarantee inclusive, equitable quality education for the students.

Several insights can be drawn from this study. First, Mother tongues are essential components to achieving equitable quality and inclusive education. Therefore reconsideration of their status in the Moroccan classrooms should be prioritized. Their use in the school should be allowed pedagogically, either fully or partially, as is the case with the examples of South

Africa and Rawanda in which Isixhosa and Kinyarwanda are successfully integrated in the educational system. Providing equitable quality education for all students depends on using efficient and practical programs that combine their mother tongues and the dominant languages, which would lead to mastering these languages to have equal access to knowledge, skills, and values and to all components of the curriculum.

The top-down approach adopted in the Moroccan education policy should be changed to be more inclusive. The policy designed at the central level results in a huge gap between the intended objectives and the actual outcomes. Therefore, taking into consideration the targeted agents' opinions is very important. The case under scrutiny shows that classroom practices are different from the goals of the macro policies. Teachers are forced to use languages that hinder them instead of facilitating their tasks. At the same time, students are taught in mediums that affect the attainment of the learning outcomes and their integration in the teaching-learning process. Therefore, the engagement of all the participants in the policy design should be given high priority. Establishing a successful education policy requires assessing the whole program and detecting its fundamental challenges. The objectives are ought to be set based on the teachers' and students' abilities to put them into practice, not on the macro-scopic views which have been proved to destroy rather than build.

Third, the multilingual nature of the language practices inside the classroom reflects more the character of Moroccan society, which is officially denied in national education policies. Multilingualism should be viewed as a resource rather than as a problem. Instead of opting only for standard Arabic and French as the mediums of instruction, Amazigh and Moroccan Arabic should be exploited to help the students overcome many problems related to learning outcomes attainment, integration, participation, confidence, and self-esteem. Hence, promote quality, equity, and inclusion in Moroccan schools. Morocco indeed adopted a new multilingual policy in 2000, but local Moroccan languages use still very limited to informal domains in terms of practice. Amazigh was integrated in 2003 as a school subject, but it is officially denied as a medium of instruction alongside Moroccan Arabic. However, the results confirm that mother tongues are focal elements in providing equitable quality education for learners. Wisbey ((2016) cited in Milligan et al., 2020, p.122) supports this point as he states that 'we live in a multilingual world…Yet, most education systems ignore this multilingual reality. Equitable quality education and lifelong learning for all are only possible where education responds to and reflects the multilingual nature of society. This gap between reality and practice, on the one hand, and education policies, on the other hand, exacerbate the challenges that face education and results in inequity and lack of quality education.

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