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EdData II

Research on Reading in Morocco: Analysis of Teachers' Perceptions and Practices

Final Report – Component 3

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Research on Reading in Morocco

Analysis of Teachers' Perceptions and Practices

Final Report – Component 3

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Abbreviations

AREF	Regional Academy for Education and Training
BAJ	Barnamaj alaoulaouiat alijtimaia
CNEE	National Center for Evaluation and Testing
CNEEO	National Center for Evaluation, Testing, and Guidance
CNEF	National Charter for Education and Training
CNIPE	National Center for Teaching Innovation and Research
CRMEF	Regional Center for Professionals in Education and Training
CSE	Higher Council on Teaching
DETVS	Directorate of Technical Education and School Life
EGRA	early grade reading assessment
FUE	university teacher education track
MCA	multiple component analysis
MENPF	Ministry of Education and Professional Training
MSA	Modern Standard Arabic
PCA	principal component analysis
PNEA	National Program for Educational Achievement Testing
UCFC	Central Unit for Civil Service Training
USAID	United States Agency for International Development
RTI	Research Triangle Institute, International

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Preface

Morocco is a country with unique cultural and linguistic assets thanks to its historical influences and to its geographical position at the crossroads of sub-Saharan Africa, North Africa, and Europe and its proximity to the Middle East. The official language of the country is Arabic (known as “classical Arabic” or “modern standard Arabic” [MSA]) while native and community languages used by most children are either a Moroccan version of colloquial Arabic (Darija) or one of the Amazigh languages and its regional variations, such as Tamazight, which is spoken in the South, and Tashelhit in the North. Wherever it is spoken, Arabic is characterized by “diglossia,” that is to say, the co-presence of two language variations, one that is used in formal education and is codified, and another that is used in regular exchanges in everyday life. In Morocco, MSA is used in the school and governmental offices, while Darija is the local variation, largely limited to oral expression with no written codification.¹ Darija is constantly evolving by integrating words in French, Spanish, Amazigh, etc. Even within Morocco, Darija can vary from one region to another. As many words of Darija are identical to MSA, it is not considered a separate language, but this does not mean that the two languages are mutually intelligible. An individual who has never been to school and only speaks Darija at home will hardly understand MSA.² Amazigh, on the other hand, uses its own alphabet, which is neither Latin nor Arabic. It is recognized by the Constitution as an official language, and the methods of its integration in schools, government offices, and society are still being negotiated.

The National Charter for Education and Training (CNEF), introduced in 2000, aims to achieve three objectives:

- Primary education for all and improved education in quality and performance
- Reformed educational system
- Modernized educational system

However, as the end of the decade approached, in 2009, the Government of Morocco was forced to put in place a national emergency program to attain the above objectives. This program extended the deadline for achievement of the objectives to 2015 and added one more objective: The eradication of illiteracy.

Moroccan children start primary education at the age of 6 years old. Primary school runs for six years, followed by three years of secondary education until the age of 15. The standard Arabic (MSA³) is the official teaching language starting from the first grade. In Morocco, French is still used in public life, and is considered the mother tongue of some Moroccans. It is introduced from an early age as a teaching language in some preschools. The CNEF recommended access to education for all school-age children and delivery of quality

¹ On the other hand, more recently the use of new technologies—especially SMS and online discussion forums or social networks—has spurred the codification of Darija phonetically, using the Latin alphabet, with the use of numbers for phonemes that don’t exist in that alphabet; for example: “fus7a”, where the number 7 represents a version of the phoneme /h/.

² FHI360 (2013). *Mapping for reading best practices: Moroccan organizations improving reading skills in and out of school. Draft Report*. Report prepared for USAID/Morocco.

³ Throughout this report, the term “Arabic” may be understood to refer to MSA, whereas “Darija” is used when referring specifically to the variation spoken in Morocco.

educational services. The Charter granted fundamental importance to learning reading skills in preschool:

... activities to get started on learning reading and writing skills in Arabic, particularly through having good command of spoken Arabic, and relying on mother tongues. (Article 63, p 33)

If the drop-out rate at the primary level is still estimated at 38 percent,⁴ this is partly due to difficulties caused by languages of instruction, low initial teacher training, and high rates of teacher absenteeism.⁵ According to the data obtained from the evaluation of the Emergency Education Program, lack of schooling is mainly due to cost, accessibility, and family problems; however, the implementation of a student monitoring system was successful in reducing repetition rates.⁶ The quality of education is also an important factor in whether a child stays in school.

Learning to read is the key to academic success. Reading, writing, and arithmetic skills constitute the basis of all future student achievement. Academic success is furthermore associated with other economic advantages that will benefit the individual and the country. However, Morocco is losing this advantage because of the lack of quality learning for all children in the first school years. In 2007, the Progress in International Reading Literacy Study (PIRLS) report ranked Morocco in second-to-last place among the participating countries, with a score of 323 compared to an average of 500 in other countries. The same report showed that 74 percent of students do not reach the minimum threshold required to develop their reading skills. The 2011 report shows an even lower result, with Morocco having dropped to 310 in the field of reading. This downward trend in the level of reading of Moroccan students was observed between 2003 and 2011 for secondary education as well.

Similarly, the 2008 reading assessments, done by the National Center for Evaluation and Testing (CNEE) (now the National Center for Evaluation, Testing, and Guidance [CNEEO] after inclusion of guidance [the National Program for Educational Achievement Testing (PNEA) program]) in collaboration with the Higher Council on Teaching (CSE), produced the following results, in rate of correct answers, and further validated the conclusion that reading skills are low in Morocco in the early years. *Table P-1* provides the results.

Table P-1: CNEE Reading Assessment Rate of Correct Answers

Language	Grade 2 of elementary	Grade 3 of elementary
Arabic	32%	43%
French	31%	33%

Source: CSE, 2008

Finally, in 2011, the United States Agency for International Development (USAID) funded an evaluation conducted by RTI,⁷ an early grade reading assessment (EGRA), in the region of Doukkala Abda, using an oral methodology that gives accurate and reliable results. The

⁴ UNICEF, At a glance: Morocco. Retrieved August 8, 2014, from http://www.unicef.org/infobycountry/morocco_2238.html

⁵ FHI360. (2013).

⁶ SOFRECO (2013). Evaluation de mesures et de stratégies mises en œuvre dans le cadre du programme d'urgence pour l'éducation au Maroc [Evaluation of strategic measures put in place under the Emergency Education Program of Morocco]. Rapport Final [Final Report].

⁷ See www.eddataglobal.org.

EGRA⁸ showed that only 34 percent of students in the second and third years of primary school could read well a text adapted to their level in Arabic and fully understand its meaning. A large share of boys as well as girls could not give the names of the letters of the alphabet or read simple words; 33 percent of second grade students and 17 percent of third grade students could not read a single word of the text (these students are called “non-readers”). Only 2.5 percent of the surveyed students correctly answered 5 out of 6 questions on comprehension. The assessment showed that the factors that affect students’ performance are multiple and complex:

- Lack of teacher training: Studies have shown that Moroccan teachers receive little or no specialized training in reading instruction and the assessment of students’ reading skills, leaving them ill equipped to enable students to succeed in the first years of primary school.
- Lack of supplementary reading materials: Without these materials for all students and the school, the global learning environment is greatly limited.
- Lack of reading materials at home: Few children have the chance to read outside the school. Only 9.5 percent of students answered that they do use their textbooks at home or read every day at home. Over 52 percent of students reported that they never read aloud at home, and only 32 percent do so “sometimes.”
- Lack of parental involvement in student and school achievements: Parents meet with teachers at least once a year, but the majority of teachers believe parental involvement is insufficient.
- Diversity of languages: The linguistic context of Morocco further complicates the learning environment.

Within this framework, USAID and the Ministry of National Education and Vocational Training (MENFP) decided in early 2013 to scrutinize some of the factors that promote or hinder the acquisition of reading in Arabic in the early years, through three components of a broad study, namely:

1. A review of curriculum and learning materials (textbooks, teachers’ guidebook, etc.)
2. An analysis of initial teacher training and reading instruction
3. An analysis of the perceptions and attitudes of teachers and how they influence practice

The question of reading improvement has not always been overlooked, but deserves to be discussed more deeply. Here are some direct and indirect examples of previous activities:

- The promotion of reading in primary schools in rural areas under the BAJ (Barnamaj alaoulaouiat alijtimaia) or Social Priorities Program. Several buses were purchased and equipped as libraries, with books, comics, textbooks, dictionaries, etc. These bus libraries were supplied in the 14 provinces covered by BAJ. The main objective was to bring the information center to students and enable them to access various sources of reading.

⁸ RTI International (2011). *Student performance in reading and mathematics, pedagogic practice, and school management in Doukkala Abda, Morocco*. Report prepared for USAID under EdDataII.

- A pilot project launched in five provinces, consisting of a project on workshops for reading. The pilot aimed to make reading material available to students and to teach them to read in conditions different from those in the classroom.
- School theater activities, organized in all schools, allowing students to play and learn from texts. Students were motivated to represent their schools at provincial, regional, and national level events (Directorate of Technical Education and School Life [DETVS]/ MENFP).
- The Emergency Education Program recommended the establishment of a system that would allow personalized tracking of students and would provide support to students encountering troubles. This system aimed to reduce school dropout and repetition. The Emergency Education Program, through the “million schoolbags operation” distributed school kits with textbooks (recycled), pens, slates, etc.
- Recently, MENFP introduced new modules of reading at secondary schools as part of USAID’s Improving Training for Quality Advancement in National Education (ITQANE) project.

In addition to these experiences, there are other initiatives that have been launched by socioeconomic entities and civil society organizations. However, these initiatives are still conducted on a small scale without being generalized or supported, and most initiatives have targeted literacy among older individuals or improving remedial skills of students. Teaching the basic elements of reading seems to remain the responsibility of preschool, for which there is a curriculum and a teacher’s guide. However, access to preschool education, depending largely on private initiative, is limited and not universal. For the year 2012–2013, the gross rate of enrollment in preschool was 60 percent in all types of preschool institutions (traditional, modern, public).⁹

It is within the context of this movement aimed at promoting reading in schools initiated by these different studies and actions, that USAID and the MENFP have launched this broad study. This component concerns the third topic, analyzing teachers’ perceptions and practices in teaching students to read in Arabic.

⁹ Ministère de l’Education Nationale, Direction de la Stratégie, des Statistiques et de la Planification, Division des Etudes et des Statistiques [National Ministry of Education, Directorate of Strategy, Statistics, and Planning, Division of Studies and Statistics] *Recueil statistique de l’éducation [Record of Education Statistics] 2012–2013*.

1. Introduction

1.1 Background and Methodology

Background

The skill of reading is one of the most powerful levers for individual achievement, both personally and professionally and, obviously, academically (Lyon, 2002). Reading is fundamental, for example, for a child's successful educational development, as it plays an essential role in the teaching of the other subject matters. The critical period for developing reading skills ranges between 4 and 7 years old (Willows, 2002).

Moreover, some studies prove that learning difficulties and persistently poor educational outcomes are identified as factors of vulnerability and pose a significant dropout risk (Fortin & Picard, 1999). It is unlikely that children with learning difficulties in reading at the end of the third grade will overcome them later on. Reading instruction is overall complex, especially when we admit that reading skills are influenced by a number of factors (Dickinson & McCabe, 2001; Linnakylä, Malin, & Taube, 2004). Such factors include the following:

- Cognitive: phonemic or phonological awareness (Byrne, Fielding-Barnsley, & Ashley, 2000), print awareness (Lazo, Pumfrey, & Peers, 1997), letter recognition (Schneider, Roth, & Ennemoser, 2000), representation of the reading process (Borko & Eisenhart, 1986), language development (Nation & Snowling, 2004), memory (Tijms, 2004)
- Emotional: interest in and attitude towards writing and print (Wood, 2002), the value placed on written word (Dreher, 2003), teacher-student relationships (Bohn, Roehrig, & Pressley, 2004), feeling of self-efficacy (Bandura, 1986; Bong, 2001)
- Social: beliefs, attitudes, and practices of the family and cultural background (Wood, 2002); classroom atmosphere (Bohn, Roehrig, & Pressley, 2004)
- Didactic: teaching methods and strategies (Pressley, Rankin, & Yokoi, 1996), language of teaching, and time spent in reading, guided or individual reading

The teacher clearly plays a key role in the explicit and direct teaching of the didactic area, but also has an important role across the other factors as mediator between the student and the social and affective factors of school life. For example, currently, there is an ongoing debate on the validity of teaching primary school students in MSA, which is not their spoken language at home. Moroccan classrooms are also very diverse in terms of living standards of the children and children's academic abilities, which may depend on whether they have been to preschool or not. An estimated 27 percent of classrooms are multigrade, which constitutes yet another challenge for the primary school teacher tasked with developing reading competency in the first year of primary school.

It is the subject of another report in this series of research studies (see Preface) to examine the influence of preservice training of primary teachers. The present report analyzes in detail teachers' attitudes and practices. As a starting point, it addresses the following questions: What are the perceptions that have the most influence on the teaching of reading in the early

grades? How do these perceptions impact the professional development of teachers? How do teachers respond to questions about the language of teaching? Are they receptive to the learning of reading in local languages? This third research component studies the perceptions of language use in general and the behavior of teachers specifically. It analyses teachers' perceptions of the teaching of reading in Arabic and how these perceptions influence their practice.

Quantitative data have been collected from teachers using a combination of individual interviews (questionnaires with open- and closed-ended questions), classroom inventory, and classroom observation guide. The collected data complement other components of the research, observing how teachers are implementing the national curriculum in the classroom, how they use textbooks and how they take ownership of and apply the concepts acquired during their preservice training with a view to compare official curricula as designed and implemented.

Methodology

From a qualitative perspective, the data on teachers' perceptions and practices were collected through interviews and focus groups in order to give participants an opportunity to describe their mutual attitudes, knowledge, and experience in this field. Other tools enabled teachers to individually provide answers during an open-ended interview. Finally, a classroom observation tool was a third reference point for collecting information about what actually happens in classrooms.

In total, the qualitative survey covered eight schools in two AREFs and used the following instruments:

- Structured interviews with one teacher per class (1 to 3 levels) for a total of 24;
- Observation of the reading lesson given by this teacher (three observations per school), to collect information on teaching methods, content, and certain basic elements about the literacy environment of the classroom;
- Focus groups including larger number of teachers in each of the same schools (making a total of 8 focus groups with 22 participants).

The quantitative survey reached 75 schools, including satellites (multigrade and non multigrade) randomly selected according to a sampling plan described in the Annex 2, plus five schools that overlapped with Component 2 of this research program (observation of future teachers during their practical training) for a total of 80. A structured, standardized questionnaire concerning attitudes and practices was administered to 150 teachers in Grades 1 to 3. This methodology allowed the observation of the same teachers in the course of their language/reading lessons in order to identify the methods used in the classroom, to determine the extent to which teaching strategies comply with or are related to the curriculum, and to know whether teachers employ research-based methods for teaching Arabic.

RTI developed simple tools of classroom observation, based on the methodology of Stallings but specifically designed to assess the teaching methods of teachers in reading lessons. This research program has also enabled the introduction of a new instrument that until now has been used by RTI only in Nepal to measure teachers' attitudes toward pedagogy and reading, but can be adapted to the specific context of each country. To study the beliefs and attitudes of teachers in class and in training, these two groups were asked to reply to a self-

administered questionnaire measuring attitudes, using 26 pairs of statements. In each item (pair of statements), the teacher must choose the statement that best describes his or her own point of view. Each item was formulated to reflect one of the following three fields of attitudes:

- Attitudes about learning techniques in the primary levels of education, in general (10 items)
- Attitudes about techniques in the learning of reading, particularly in standard Arabic (8 items)
- Attitudes about the use of mother tongue (Darija or other) in class and in learning reading (8 items)

Each pair of statements represents two possible distinct attitudes or perceptions, one of which is associated with an opinion more “favorable” to the modern student-centered methods. For example, in a pair of questions like “A. Students learn better if they actively participate in the lesson.” and “B. Students learn better if they listen to the lesson very carefully.” The expected answer would be “A” because it complies with the research that promotes the correlation between active participation and better results. See *Annex 4* to examine all questions.

Thus, the study examined and analyzed teachers’ knowledge, professional experience, and perceptions of the following: the teaching practices and methods used in class, attitudes towards the use of the mother tongue (Darija, Amazigh), attitudes and beliefs of teachers vis-à-vis the teaching of reading in Arabic, particularly in relation to the motivations that lead them to choose teaching, beliefs about concepts of “effective teachers” and “good teaching,” and the motivations behind the choice of such a job career.

The analysis of the survey data allowed us to outline teachers’ attitudes and perceptions on the teaching of language and reading in Arabic, and to define the practices of the teaching of reading in Arabic in the first three grades.

Through these different instruments, we attempted to analyze in depth the perceptions of teachers about reading in Arabic and learning Arabic in the first three grades. In the following sections, we will present the most salient results of the study and the resulting recommendations. Finally, we will establish, on an empirical basis, the relationship between perceptions and practices and the respective contribution of perceptions, individual teacher characteristics, and the teaching environment to influence these practices.

1.2 Conceptual Framework

The above-mentioned factors related to reading (cognitive, emotional, social, and didactic) are found in the literature to be at least moderately associated most of the time. For example, teaching methods and strategies or feelings of “self-efficacy” of teachers have some influence on student motivation and engagement in reading activities, which, in turn, influence the development of reading skills (Wood, 2002).

It is with that association in mind that we analyze teachers’ attitudes and their practices in class with respect to the teaching of reading skills in Arabic. Globally, research supports the notion that perceptions and attitudes that teachers have about teaching early reading can have an influence on their classroom practices (Powers, Zippay, & Butler, 2006):

- Beliefs, perceptions, and attitudes of teachers in training can improve understanding and adoption of new methods. They can also make teachers less receptive to new methods if they are not aligned (Stone, 2012).
- Beliefs and attitudes of teachers are at the root of their own feeling of self-efficacy as a teacher, and this influences choices and pedagogical practices in the classroom. (Hastings, 2012).
- Beliefs, attitudes, and perceptions are themselves strongly influenced by the experiences of teachers—the way they learned how to read remains a powerful model for teachers in their practice *regardless of teacher professional development*. (Barnyak & Paquette, 2010).
- Beliefs and attitudes of teachers regarding what children are capable of learning are important—if not the determining factor—in student progress (Allington, 2013).
- Training programs that address perceptions and attitudes of participating teachers will have more chance of producing desired results (Borg, 2011).

We will also use the sense of competency or “self-efficacy” to develop a typology of teachers according to what they think to be good teaching practices, what they believe makes an effective teacher, and the motivating reasons for choosing the teaching job and career.

The feeling of self-efficacy is the set of representations that a person has of his or her ability to mobilize his or her resources and perform the actions required of a given situation (Bouffard-Bouchard, 1982; Bouffard, 2001). For teachers, the feeling of self-efficacy means the belief that they can influence student learning even if they are facing difficulties or unmotivated (Guskey & Passaro, 1994). For example, a teacher with a high sense of self-efficacy believes in his/her ability to work toward the goal of making every student of his/her succeed in school (Tschannen-Moran & McMaster, 2009), while another with a lower sense of self-efficacy will feel unable to perform the appropriate actions, let alone seek to start performing them or persist in doing so (Bandura, 1997). This self-regulating mechanism influences one’s expectations of results and outcomes, one’s aspirations, choices, level of effort, and perseverance when facing adversity (Bandura, 2003). By analyzing these characteristics, we can better understand how to align the recommendations of all studies with the reality of teachers in class and therefore implement future interventions with a better chance of success.

2. Results

2.1 Characteristics of Teachers and Their Perceptions of the Career

This section aims to identify the main motivations that lead teachers to choose a career in teaching. It analyzes their perceptions of self-efficacy with respect to all activities meant to develop students’ reading skills. It also examines their perceptions vis-à-vis the characteristics of an effective teacher.

Characteristics of the sample

In this study, most teachers are females (see *Table 1*). This appears to be a trend that will grow in the future, because of the high number of female teachers in training who were interviewed (78 percent of preservice teachers and 53 percent of in-service teachers were female).

Table 1: Teachers by Gender

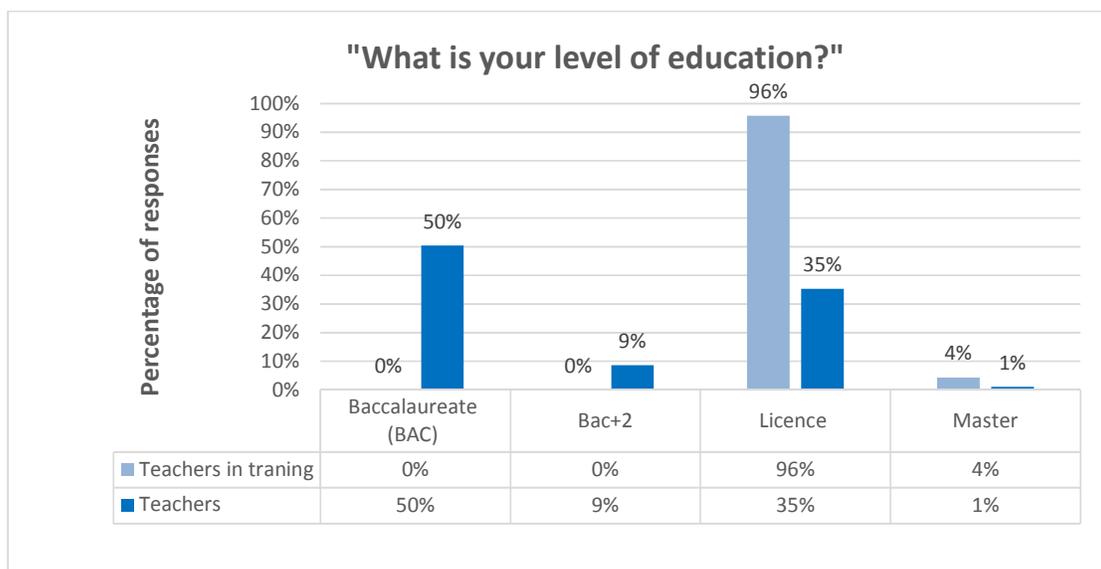
Gender	Pre-service teachers	In-service teachers
Men	22%	46%
Women	78%	53%

Data from teacher questionnaire.

The fieldwork only focused on teachers of the first three grades (1 to 3). At the time of the survey, preservice teachers were found in satellite schools only, and for this reason they are all in multigrade classrooms (100 percent). As to in-service teachers who were interviewed, 26 percent have multigrade classes and 74 percent are assigned to a single-level class.

There is a noticeable difference in level of instruction between the two categories because pre-service teachers have at least a bachelor's (96 percent) or a master's degree (4 percent), whereas in-service teachers have a baccalaureate (50 percent) or a bachelor's degree (35 percent) only. This is due to the new teacher recruitment system (see *Figure 1* and the final report from Component 2 of this research program on preservice teacher training).

Figure 1: Teachers by Level of Instruction



Data from teacher questionnaire.

Teachers come from different educational backgrounds, departments, and specialties; 44 percent of in-service teachers come from Arabic and modern arts departments, 31 percent from sciences, 9 percent from departments of Islamic studies, and 16 percent from other specializations (economics and social sciences, law, etc.). See *Table 2*.

Table 2: Teachers by Specialization

What is your specialization?	Preservice teachers	In-service teachers
Islamic studies	4%	9%
Sciences	17%	31%
Arabic and modern arts	13%	44%
Others	65%	16%

Data from teacher questionnaire..

Preservice teachers show much more diversity in their initial training because 65 percent are graduates from departments outside of Islamic studies, sciences, or Arabic and modern arts (such as economy, management, law, etc.), compared to only 16 percent of in-service teachers.

Motives behind choosing and staying in this profession

Teachers were interviewed about their motivations for choosing the teaching profession and the reasons that lead them to remain in this career. It is important to take into consideration these motivations to better target eventual interventions. If, for example, most teachers think of teaching primary grades as an easy task, or only as a mean to access more prestigious upper levels, then this will have an impact on the return on investment in in-service and even in preservice training. The collected answers are summarized in **Table 3**, below:

Table 3: Motives behind Choosing This Profession

Why did you become a primary teacher?	In-service teachers (n=178)
I like this job/ I like kids	47%
Stability of the public sector (retirement, etc.)	32%
Other	7.0%
Entrance exam is easy	5.5%
My family chose it for me	5.2%
A good salary (better paid job compared to others)	2.2%
To be close to my family	1.2%

Data from teacher questionnaire.

Upon reading the above table, two main answers emerge: first, the love for the teaching job and for children (47 percent) and second, the stability of employment in the public sector (32 percent).

The qualitative survey showed that teachers say they are motivated by the need to encourage and support students. They also believe that by educating children, doors are open to a more secure socioeconomic life, affirming the right of children to education. The qualitative survey also revealed other reasons for choosing the teaching job, particularly the substantial material benefits, such as the duration of the school holidays and the opportunity to pursue one's studies and develop professionally in the education sector.

The reasons given by teachers were grouped into three main topics: self-realization, service, and material benefits. First, teachers benefit from personal development opportunities that

allow them to pursue their studies and keep on learning. Other given motivations are related to service, such as being able to transfer knowledge and help students learn to read. Finally, they are attracted by the financial benefits, and the stability of the public sector positions, the improved social status of teachers and working conditions that continue to improve. These three criteria are decisive in choosing to be a teacher.

The quantitative survey revealed that 59 percent of teachers aspire to remain at the primary level, while 41 percent expressed a wish to be promoted to higher levels. For those wishing to stay in primary, they justify their choice by their love for this profession. It is, indeed, a lifestyle choice, as stated by a teacher: “It’s a choice, because I love this job, I give my best, my energy and knowledge, this is my life, I cannot give it up, I will keep it until I retire.” Teachers say they intend to remain in this profession despite all the difficulties it entails because they feel they have a positive effect on students and are able to develop their reading skills. In addition, this choice is, for some teachers, justified by the fact that elementary students are more enjoyable than those in higher levels, who are seen as more difficult to control and not respectful towards teachers.

Table 4: Make a Career in Teaching

Do you plan to stay in primary or to move to higher levels?	In-service teachers (N=178)
I would like to keep on teaching primary levels	59%
I would like to progress and access higher levels	41%

Data from teacher questionnaire.

The qualitative study revealed that some teachers prefer to change grade levels to move to higher ones, while others, particularly older teachers and those suffering from health problems, prefer to take early retirement or opt for an administrative responsibility within the school. “I’m exhausted, old age and disease and the high number of students are pushing me to think about retirement,” says one such teacher.

Except for these cases, the majority of teachers are motivated by their love of teaching. The interviewed teachers believe that this job has many challenges, but the relationships forged with students and the influence they can have on them motivate and give them strength to continue in their choice of career. A teacher says: “I’ll keep my position until I retire because I’m made for this job.”

The possibility of transferring knowledge and helping students to learn to read in Arabic pushes a large proportion of teachers to opt for remaining in the early grades (1 to 3 levels). The answers to the question “Which grade would you like to teach?” enabled us to discern the following two main reasons:

- The first reason is related to personal fulfillment. Teachers explain this choice by their desire to teach students reading skills in Arabic that will allow them to successfully pass the higher levels without any trouble. One of them says: “These are the three determining levels for the child to learn reading skills. If the student misses the first three years, he will never master reading. I would like that my students develop good

reading abilities and move to the next levels. I make this choice because I want the blessing and gratitude of God (أجر).”

- The second reason is related to accumulated experience. Teachers explain their choice to continue to teach the same level because they have accumulated great experience in one of these grades, a thing that allows them to succeed in their mission. It also allows them to choose the appropriate methods and be able to make innovations in this area. “Even if there are difficulties in these levels, I prefer to keep the same level. I gained enough experience to confront them, and I can be innovative in my teaching and my methods,” says a teacher.

While there are still a third of teachers who chose the field out of stability only, the analysis of the reasons that motivate teachers to remain in this career reflects overall positive attitudes. For the majority, they make their choice out of love of teaching. As for choosing it for life, this is due to dedication to one’s job and to eagerness to improve and innovate at some point in one’s career and offer solutions or methods to alleviate the difficulties related to teaching reading skills to students.

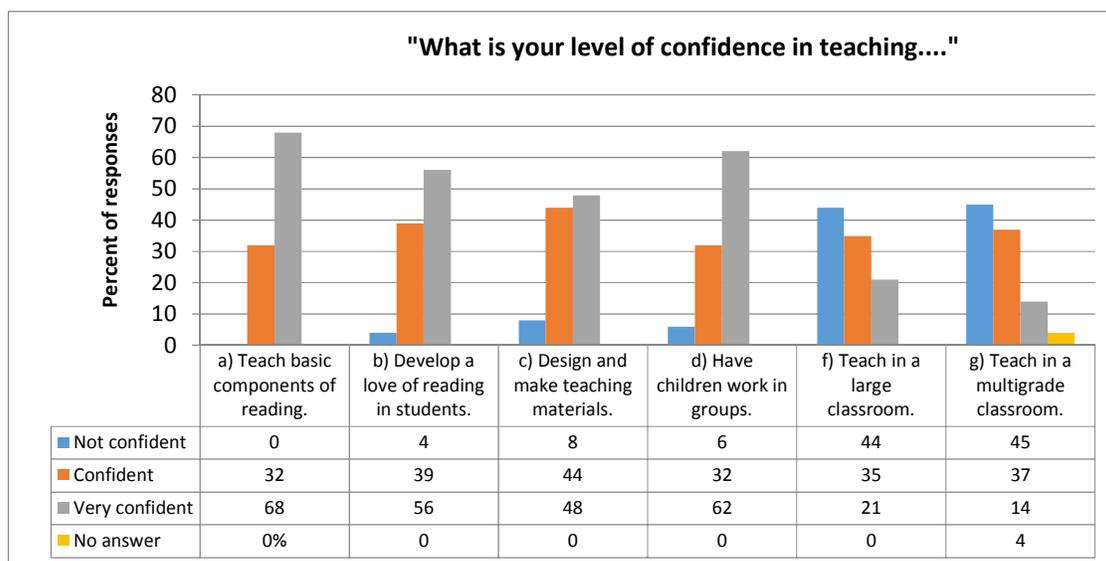
Do these motivations have a link with the feeling of personal effectiveness (self-efficacy)? Can we make the hypothesis that our teachers are well equipped to cope with the activities of teaching reading skills in Arabic? Are they confident in their job as teachers of reading in Arabic? Let us now move to the analysis of self-efficacy of the interviewed teachers.

Teachers’ self-efficacy

Teachers’ self-efficacy is approached within the framework of this research. Studies show that teachers’ beliefs about their effectiveness in teaching affect their attitudes toward the act of teaching and toward the nature of class activities. Numerous studies have established a direct link between self-efficacy of a teacher and his/her ability to promote the success of his/her students (Ashton, 1984; Denham & Michael, 1981; Roeser, Arbreton, & Anderman, 1993). Self-efficacy is closely linked to decisions to persist in a given field, to tenacity in a given situation and a given requirement, to how stressful the context is, and to the level of personal achievement. To sum up, a teacher’s positive or negative influence on students depends on whether he/she has positive or negative feelings of self-efficacy.

When we examine the results in detail, we find two opposing self-assessments, one positive and the other negative. Regarding the positive self-evaluation, teachers feel very confident (68 percent) in teaching basic components of reading (sounds, letters, syllables, etc.). A large number tend to feel very confident in developing students’ interest in reading (56 percent) and developing teaching materials (48 percent).

With regard to negative self-evaluation, the greater number of teachers do not feel confident in leading a multigrade class (45 percent) and in managing a class with high number of students (44 percent). **Figure 2**, below, shows the degree of confidence teachers have in class during several educational activities for reading in Arabic.

Figure 2: Degree of Confidence in Teaching

Data from teacher questionnaire.

We observed that almost half of teachers are not confident about teaching a multigrade class or a large size class despite the delivery of specific preservice training on these matters in CRMEFs (see the Component 2 report). It would be interesting to study in detail the case of multigrade classes, as they represent 27 percent of classrooms nationwide. In this study, multigrade classes were usually led by men rather than by women. We also recorded that multigrade classroom teachers tend to have higher degrees, but are more likely to have fewer than 10 years of service (only 17 percent of teachers). Similarly, teachers with specialized education such as Arabic and modern literature are more numerous in non-multigrade classes. Almost half of the teachers assigned to multigrade classes are graduates from other special fields, such as management, economics, law, etc. In a large size class, dealing with students facing learning obstacles leads to negative self-evaluations because a number of teachers say they are not well equipped pedagogically to deal with this situation (see *Figure 2*).

Despite these rather positive statements on their ability to teach primary grades, teachers tend to be unsatisfied with their current level of training compared to job requirements (70 percent for in-service teachers and 87 percent for preservice teachers; see *Table 5* below).

Table 5: Satisfaction with Initial Teacher Training

Taking into consideration all job-related aspects, how do you assess your current training level compared to the requirements of your job?	Preservice teachers (23)	In-service teachers (178)
Not sufficient at all	13%	29%
Not sufficient	74%	41%
Fairly sufficient	13%	20%
Very sufficient	0	9.5%

Data from teacher questionnaire.

One of the main outcomes of the report on the preservice training of primary school teachers (Component 2 in this research series) is that there is insufficient time to practice in the classroom, and therefore, there is a significant gap between theory and practice in preservice education. The result is that teachers are highly dependent on the content and methods presented by textbooks (especially reading texts), and they need to adapt to the field situation using their own experiences and combining them with the available resources at school.

This finding is supported by the interviews conducted during this component of the studies. Teachers responded to the following question: “To whom do you go if you want to get a clarification on a specific matter about the teaching of reading in Arabic?” Half (51 percent) of in-service teachers say they first contact their colleagues (see *Table 6*).

Table 6: Asking for Advice

To whom do you go if you need advice or clarification of a concept?	Preservice teachers (N=23)	In-service teachers (N=178)
I ask another teacher	22%	51%
I never need help	4.3%	23%
I ask the supervisor or pedagogy advisor	30%	11%
Internet	22%	5.9%
I ask the headmaster	0%	4.9%
There is no one to help	0%	3.4%
Books	4.3%	0.7%
Trainer	13%	0%

Data from teacher questionnaire.

On the other hand, 23 percent say they never need help, and 3.4 percent say they find no one to help them. This demonstrates the existence of a significant proportion of teachers who have a rather strong feeling of self-efficacy that leads them to isolate themselves at the risk of losing the ability to acquire new knowledge and progress, as shown by the response of a teacher participating in the survey: “I do not need anyone. I have no expectation from others; I have enough experience and I use my own methods.”

The important conclusion that emerges from this analysis is that students are obviously dependent on the capacity of teachers, and teachers are visibly very dependent on resources available within the school (texts, other teachers). What is then the effect on student learning if texts are not adequate, and if the other teachers have neither the knowledge nor the skills necessary to be effective? Especially, regarding pedagogical knowledge about the teaching of reading, if teachers are not aware of effective methods for teaching reading in Arabic in the early grades, how can they help each other? Can in-service training improve capacity at the school level?

Does a feeling of self-efficacy (or lack of it, depending on the case) make teachers feel the need to acquire new professional knowledge to succeed in Arabic reading instruction? Indeed, as shown in *Table 7* the majority of teachers express a need for further in-service training and for capacity building in several fields related to Arabic reading instruction in the early grades.

Table 7: Ongoing Professional Development Fields Identified by Teachers Based on Open-Ended Questions

Professional development subject areas cited	Preservice teachers (24)	In-service teachers (188)
Approaches and methods on of reading instruction	29%	34%
ICT and new techniques of reading	29%	32%
Activities and events to promote reading	29%	29%
Child psychology and management of pupils' difficulties in reading	21%	27%
Elements of the language: articulation of letters, phonemes, pronunciation	46%	24%
Pedagogy of teaching Arabic reading	21%	23%
Observation of lessons and practicing reading instruction (learning by doing)	17%	12%
Others	33%	17%

Data from teacher open-ended questionnaire.

Responses obtained from in-service teachers and preservice teachers about the desired fields of professional development are relatively homogeneous, except for the subject of general language characteristics (articulating letters, phonemes, and pronunciation) stated by 46 percent of preservice teachers and only 24 percent of in-service teachers as a training need. Similar percentages were observed as to the demand for different fields of training, with nearly a quarter of teachers expressing a desire for training in each case. However, if we group two categories of “Arabic language,” we get more than the half of preservice teachers and 47 percent of in-service teachers who would like to get more training in this field. This finding is also consistent with the results of Component 2 of this research series, which signaled an insufficient mastery of the Arabic language among preservice teachers. More research would be needed to confirm whether these observations are correct.

To sum up, we can determine based on the above quantitative data and the additional information obtained from qualitative interviews two distinct profiles: teachers with high self-efficacy and teachers with low self-efficacy. Teachers with a feeling of high self-efficacy have a more optimistic view of their ability to teach and of their training needs. They think they have acquired enough experience to teach reading in Arabic. To provide the support and aid necessary for the success of their students, they would like to benefit from some capacity building in areas that are not currently taken into account by the existing training programs, in particular, how to differentiate instruction in classrooms that are very diverse in terms of prior learning and socioeconomic conditions.

On the other hand, teachers whose feeling of self-efficacy is low have a rather negative view characterized by a lack of emphasis on maximizing efforts to ensure success for students. According to these teachers, poor socioeconomic conditions of students, family difficulties, and lack of equipment and material resources at schools are all factors that prevent the teacher, on the one hand, and the pupils, on the other hand, from teaching and acquiring reading skills. Therefore, they end up abandoning students who are unable to get good results

quickly and only focus on those who can read and write. We will come back to these issues in the following sections. First, we investigate what views teachers have about the qualities required in an effective teacher.

Teachers' perceptions of the characteristics of an effective teacher

Based on a series of open-ended interviews, we have collected various perceptions teachers have of the elements of effective teaching and the qualities required to teach reading in Arabic in the first three years of primary.

First, all the results indicate that the majority of teachers describe teaching as an important and rewarding profession, and they want to get students prepared for life and help them acquire reading skills. The characteristics of a good teacher and the qualities required to teach reading refer to interpersonal situations and characteristics, professional teaching activities, and personal traits.

Interpersonal skills. The survey demonstrates the primacy of interpersonal aspects in teachers' perceptions. Teachers emphasize parent-like qualities of patience, care for children, availability, passion, and open-mindedness. They highlight the fact that the effective teachers will address pupils' needs and expectations and will establish healthy relationships with them in order to help them progress.

Professional skills. The research also noted that teachers frequently mention the importance of professional characteristics. These include subject-specific competency, preparation, organization, and planning in order to create a safe learning environment. Teachers underscore the importance of having a high level of professionalism in order to fully play their roles above and beyond teaching the official curriculum, but also adapting the instructional methods to the needs of students. On the other hand, we observe that there exist few references to new approaches, new teaching methods, or a reflection on the pedagogy-related activities. Moreover, teachers believe they should be open to new ideas, subscribe to a permanent view of the learning process, and choose diversified and efficient educational methods.

Personal traits. In addition to developing good relationships with students, the study shows that teachers believe that a good teacher is someone with personal skills, such as being able to develop good relations with other teachers, as well as with the school staff and parents. Teachers interviewed seemed to have a positive attitude towards of teaching staff, in particular, and the institution, in general.

Regarding the relationship between teachers and parents, two distinct profiles have been identified. The first is that of a teacher-collaborator who tries to involve parents in the teaching process, via meetings at the school, so that they can follow the improvement of their child's Arabic reading development (which can have a positive impact on achievement according to an EGRA survey conducted in Morocco). To this end, they communicate their feedback (workbooks) to parents, make calls, or organize meeting days. This category of teachers consider parents to be collaborative and supportive towards their children: "When there is open communication with the parents and when parents support their children, we find solutions to a number of problems related to teaching."

As to the second profile, they state a lack of recognition of teachers by parents and society in general. For this category of teachers, who have a rather negative attitude towards parent involvement, some parents do not have the child's best interest in mind because they themselves do not have the educational level necessary to be able to support them: "We call parents to tell them to provide support to their children. However, they reply by saying 'We don't want our children to learn, we only want them to come to class instead of being out in the street.'" Another teacher remarked: "Parents do not respect us, their behaviors have changed towards teachers; there is a kind of disdain and disregard from their side."

This analysis of reasons that push teachers to choose the teaching profession and to make of it a career shows a positive attitude towards this profession. Most teachers are confident vis-à-vis their ability to teach certain activities to develop the reading skills of students in Arabic.

2.2 Analysis of Teachers' Profiles

Teachers' profiles were created based on perceptions collected via the questionnaire (and not via the 26 pairs of statements mentioned above). After analyzing the internal coherence by Cronbrach's alpha (0.67), the variables retained for development of the profiles were as follows:

- Reading for pleasure (apart from magazines and newspapers)
- Collaboration with other teachers to improve their lessons
- Expectations for student achievement (at what grade a child should be able to demonstrate the different components of reading¹⁰)
- The level of self-confidence and capacity to teach

In line with the literature (De Stercke et al., 2013; Watt, 2008), three methods were used to build the perception indicators namely: the principal component analysis (PCA); the multiple correspondence analysis (MCA) and hierarchical cluster analysis. The indicators derived from the first two methods are interpreted in opposite ways. Indeed, on the variables that form the indicators, the significant correlations are opposite signs and approximately equal values. The indicator of the PCA is interpreted as follows: the higher the score, the better the perceptions and confidence level. For the indicator derived from the multiple correspondence analysis, it is the opposite; the higher the score, the less the perceptions are good. As for the hierarchical cluster analysis, it gives almost the same results as the PCA. **Table 8** below shows the correlation (coordinates) of the used variables with the formed indicator (score) according to the methods.

¹⁰ The lower the grade selected by the teacher, the higher the score. Teachers' responses presumably reflect the teacher's pedagogical objectives given their perceived ability of the students; therefore this indicator can be a proxy for the actual or supposed skills of the children.

Table 8: Correlations of Each Variable with the Score's Perception According to Three Methods

Variables	Description	PCA	MCA	Classification ¹¹
e_b9_A	Do you read for fun in your leisure time? If yes, Qur'an, classical novel, or modern novels.	0.0482	0.0226	0.0174
e_e5	Frequency of exchange with other teachers on educational supports or ideas on reading in Arabic	0.0619	-0.1064	0.1767**
Level of confidence in pupils' capacities				
e_f3a	In your point of view, in which year/semester should a child: ....understand a simple story (oral) in MSA?	0.4928***	-0.2846***	0.2189***
e_f3b	.... know the Arabic alphabet?	0.2718***	-0.0854	0.2010***
e_f3e	.... read a sentence?	0.6042***	-0.3492***	0.2585***
e_f3f	.... read a small book?	0.7033***	-0.4254***	0.5278***
e_f3g	.... understand the meaning of a small book?	0.6875***	-0.4183***	0.4897***
Level of self-confidence				
e_f5a	Level of confidence in: teaching the basic components of reading (sounds, letters, syllables, words)	0.3223***	-0.5977***	0.3413***
e_f5b	Develop pupils' interest in reading	0.5579***	-0.7060***	0.3481***
e_f5c	Develop and design teaching material for learning the reading skills	0.4880***	-0.7084***	0.2583***
e_f5d	Make pupils work in groups	0.4799***	-0.7118***	0.2758***

*** Statistical significance= 1%
Data from teacher questionnaire.

A teacher with a high perception level according to our empirical definition is greatly confident in his or her capacity to teach and in students' capacities to learn quickly some skills. Also, teachers who have such levels read for fun and frequently exchange information with other teachers.

Table 8 demonstrates through a correlation test that the variables of teachers' level of confidence in their capacity to teach and in the level of students are the ones that contribute the most in forming the level of perception indicator. In order to correctly interpret the variables, for the indicators constructed based on the PCA and classification, the higher the score, the better the level of confidence. For the MCA, it is the opposite; the higher the score, the less the teacher has trust in him or herself and in the ability of students.

Next, we compare these indicators resulting from teachers' perceptions with their declared practices to answer the question of whether the perceptions influence the practices, in general, or in certain specific practices. We found out that there exist few correlations between the global scores of perceptions and the practices when these were calculated in Z-score (centered, reduced) by simply adding the different components, not weighted by all variables. First, a simple and easy to understand metric had to be constructed and interpreted.

The factor analysis and classification methods more precisely and rigorously calculate the scores of perceptions; they also establish a link between the level of confidence and some

¹¹ A similar method is used in De Stercke et al (2013).

specific practices, even if the results are more difficult to interpret. Hence, the level of confidence or perceptions of a teacher are linked to the number of weekly sessions dedicated to specific components of reading, to the methods used for assessment and remediation, and to extracurricular activities and teaching materials used. These are the practices reported by teachers and unobserved.

Table 9: Correlations between Perceptions' Score (According to Three Methods) and Variables of Practices

Variables	Description	PCA	MCA	Cluster median
Number of reading sessions per skill				
e_c2	In a typical week, how many lessons per week do you dedicate to the teaching of reading in Arabic to your pupils in class?	-0.2299***	0.2239***	-0.0747
e_c3_a	How many times per week does the lesson address the subject of: ...Correspondence between sound and symbol (letter)	-0.1641**	0.1546**	-0.0938
e_c3_b	...Developing the oral language	0.0379	-0.0281	0.1836**
e_c3_d	... Oral reading of texts	-0.0088	-0.0086	0.1915**
Testing pupils				
e_c4_3	How do you test children?: test by group "oral or written"	0.1725**	-0.2136***	0.1359*
e_c5	What is the frequency of your testing of pupil performances in class as to reading/writing in Arabic?	-0.2839***	0.2792***	-0.2115***
Remediation				
e_c8_2	What do you do with the information collected from the tests? ... Propose individual support tools to be used in class	0.2424***	-0.1653**	0.1657**
e_c8_3	... Propose activities in small groups in class	0.0265	-0.1384*	-0.0064
e_c8_5	... Communicate with parents"	-0.1618**	-0.0466	-0.1530*
Extra-curricular activities				
e_c11_0	Which of these extra-curricular activities do you conduct together with your pupils? ...None	-0.0449	0.1781**	0.0618
e_c11_1	... Music, song	0.0362	-0.1315*	-0.1044
e_c11_3	... Drawing, painting, sculpture	0.1673**	-0.3185***	0.0886
e_c11_4	... Free reading by pupils	0.1122	-0.2002***	0.0014
Types of teaching materials used				
e_d1_2	Do you use the following teaching materials to teach reading in Arabic? ... Teacher guide	-0.2947***	0.2575***	-0.1412*
e_d1_5	... Novels	0.1042	-0.1291*	0.0719
e_d1_8	... Manipulatives(games, cards)	0.2291***	0.2291***	-0.0440
e_d2_1	... School manual (Kitabi)	-0.1411*	0.0943	-0.0729

Statistical significance = *** 1%, ** 5%, * 10%
Data from teacher questionnaire.

The amount of time dedicated to reading seems to be negatively correlated with the perceptions of teachers. The lower the self-confidence or the lower the expectations the teacher has for the ability of his/her students, the more time he/she spends in teaching reading. It may be that teachers face an alarming situation trying to improve the performance of their students.¹²

The same applies to the number of sessions dedicated to correspondence between sound and symbol; it is negatively correlated with the level of confidence¹³ and also associated with a greater proportion of students facing reading difficulties as reported by teachers. This finding corresponds to the assumption that if teachers observe that several students have such difficulties, they may review their capacity to help those students throughout the school year. Conducting group tests, either oral or written, is associated with a higher level of confidence, and a lower frequency of assessment. The result may be surprising, but it can also be justified as follows: a teacher with a high level of confidence in the capacities of his/her students would be less likely to evaluate them. Another limitation of this research method is that we cannot get any conclusions about the quality of evaluations, or the relationship between different types of evaluations. For example, a teacher may conduct fewer group tests because he/she is conducting more frequent individual tests.

For remedial measures (how teachers use the evaluation results), proposing individual support during class is associated with a higher perception score or a higher level of confidence, whereas this is only the case for conducting activities in small groups according to the MCA.

Extracurricular activities such as drawing, painting, and sculpture are related to a higher perception score; free reading by students is significant only for MCA and also associated with a higher level of confidence.

Using the teacher's guidebook is associated with a lower level of confidence, while use of hands-on materials (small cards, games) is associated with a higher level of confidence. The use of the manual "Kitabi" is associated with a lower level of confidence, the results vary by school year (first, second, and third year), and textbooks are chosen by delegations, not by teachers.

2.3 Teachers' Perceptions, Attitudes and Beliefs

Do perceptions, beliefs, and attitudes of teachers enable better development of students' skills in a predictable way according to the teacher profile? Measuring teachers' attitudes by means of 26 pairs of statements (see "Methodology" above) is another method we used to garner relevant information on this matter. It's worth recalling that this questionnaire was self-administered on paper, but in the presence of the surveyor (in case of difficulty). The questions cover three categories of perceptions (student-centered teaching techniques, methods for teaching reading, and use of language in the classroom), and there are two

¹² It is important to keep in mind one of the limitations of this type of research is that answers are self-declared and not verified otherwise. So there is the possibility that the interviewed teachers exaggerate the reality; in other words, a teacher with less confidence in himself/herself would rather tend to exaggerate the number of lessons given.

¹³ However, we found a positive correlation in first grade; but negative in the second and third grades.

choices of responses. One of the responses is “expected,” or corresponds to our definition of a desirable perception or attitude, whereas the other is its opposite.

Perceptions on modern techniques for teaching-learning

In the first category of “student centered methods” (Group A), in-service teachers and preservice teachers are generally in agreement with the expected statements, as shown in *Table 10* below.

Table 10: Proportion of Teachers in Agreement with Statements Related to Student-Centered Teaching Methods in the Early Grades

	Chosen statement	Preservice teachers	In-service teachers
A12-1	Pupils learn better when they actively participate in the course (as opposed to “actively listen”).	95%	95%
A12-2	Insufficiencies in reading for pupils can be overcome by a good teaching (as opposed to “cannot be overcome”).	73%	66%
A12-3	It is important to assess the reading level of pupils to determine the type of support to give (as opposed “to determine his/her mark”).	100%	94%
A12-4	Every child has the capacity to learn to read (as opposed to “some children do not have the capacity to learn to read”).	86%	53%
A12-5	The role of teachers is to facilitate learning for kids (as opposed to “transfer knowledge to kids”).	100%	90%
A21-1	Learning reading skills depends mainly on methods used (as opposed to “child intelligence”).	100%	81%
A21-2	If pupils ask several questions, this is a sign of the success of the lesson (as opposed to “several questions from pupils may slow down the lesson”).	95%	93%
A21-3	Pupils with difficulties deserve more attention from the teacher so that they can catch up with others (as opposed to “the best pupils deserve more attention from the teacher as they are more capable of succeeding”).	100%	96%
A21-4	It is important that every child learn how to read (as opposed to “for some kids, it is not important”).	100%	99%
A21-5	It is important to help pupils do their best, even if this causes delay in the program (as opposed to “It is important to complete the program on time, even if some pupils have not been able to acquire all the skills”).	100%	96%

Data from self-administered teacher questionnaire.

Preservice teachers tend to be unanimous in giving the expected answer, with little difference between preservice teachers and in-service teachers. In general, they all agree with the expected statements concerning student-centered teaching methods, except for the statement “Every child has the ability to learn to read,” for which 47 percent of in-service teachers answered that “Some children do not have the ability to learn to read.” Similarly, only 66 percent of in-service teachers chose “reading deficiencies can be overcome by a good teaching,” which means that 34 percent believe “Even teachers with good methods for teaching reading are unable to help some children to learn to read.” These results are quite surprising and even disturbing, because they indicate a lack of self-efficacy on the part of teachers due to a lack of confidence in the inherent capacities of students. It is also possible that teachers believe that the responsibility to teach students to read is not only theirs, and that children who cannot learn to read are those who do not get extra-curricular support. This may explain the apparent absence of differentiated teaching to address the needs of children

who are facing difficulties. It is important to draw attention to these attitudes before implementing in-service training on reading; otherwise, the training efforts can be wasted if teachers do not have confidence in their ability to influence students' achievement despite their difficult circumstances.

Perceptions of methods of reading instruction

Regarding techniques for teaching reading, teachers' answers tend to be more heterogeneous. Only half of in-service teachers believe that children should be encouraged to read books starting from the first year. However, they are almost unanimous in the idea that children should be encouraged to read books outside the school environment.

Only 55 percent of in-service teachers and 64 percent of preservice teachers think that “[k]nowing word roots and morphological structures of the Arabic language can help even young readers to develop their vocabulary.” This has recently emerged as a principle with an important influence within the framework of some research on best practices in the field of learning of reading in Arabic, as demonstrated by Boyle et al. (2013) in their meta-analysis. These perceptions have an impact on classroom practice because the teachers recognize that knowing the root of words and the structures of the Arabic language can help students learn the reading skills, and they report that they dedicate more classroom sessions to this activity (2.5 against 1.8 per week on average). A quarter of teachers, however, believe that the diacritics of Arabic are more useful for pronunciation than for comprehension, and more than 20 percent think that learning to read is best done by memorizing whole words rather than by the sounds of letters.

There are differences in opinions between in-service teachers and preservice teachers regarding children's ability to learn to read and write at the same time (**Table 11**). Eighty percent of teachers think that children can learn both skills simultaneously, while the remainder think that “[b]efore they start to write, children should learn to read first.” Whichever they believe, however, has no effect on the observed practices and the observations reported by the teachers, themselves.

Table 11: Perceptions of Techniques of Learning Reading Skills in Arabic

	Chosen statement	Preservice teachers	In-service teachers
B12-1	The child should read books adapted to his level of capacity (as opposed to “his/her school level”).	86%	76%
B12-2	To learn reading, it is important to learn sounds and to combine them to form words (as opposed to “learning by heart the form of several words”).	77%	83%
B12-3	On the third year, diacritics (tashkil) are mainly important to help students to read with comprehension (as opposed to “with correct pronunciation”).	73%	68%
B12-4	Knowing the roots of words and the morphological structures of Arabic language may help younger readers develop vocabulary (as opposed to “is complex for pupils in the first years of primary education”).	64%	55%
B21-1	Children may learn reading and writing skills at the same time (as opposed to “should learn to read first, then start learning writing”).	68%	80%
B21-2	Children should be encouraged to read outside the school environment (as opposed to “It is preferable for children to read solely at school, under the supervision of the teacher”).	100%	98%

	Chosen statement	Preservice teachers	In-service teachers
B21-3	Children should be encouraged to read books starting from the first year (as opposed to “It is preferable for children to read only at school, under the supervision of the teacher”).	59%	50%
B21-4	Reading with appropriate expression indicates that children understand the text they read (as opposed to “pronouncing words correctly indicates that children understand the text they read”).	91%	92%

Data from self-administered teacher questionnaire.

These results show that the eventual in-service training should focus on raising the awareness of teachers of recent research into learning reading in Arabic.

The third category of attitudes investigated in this questionnaire is perceptions of teaching language. We will return to this analysis, but we will, first, examine in detail the views and attitudes of teachers about the effectiveness of the methods and content of reading lessons through the various levels of primary education.

Teachers’ attitudes and perceptions of the contents and methods of reading lessons

To the question “What method do you think is more effective?”, almost half of teachers (46 percent) answer the mixed method; 35 percent believe it is the whole-word method, and only 19 percent chose the syllabic method.¹⁴ **Table 12** shows the responses.

Table 12: Perception of the Effectiveness of Reading Instruction Methods

Type of reading	Preservice teachers	In-service teachers
Whole word	43%	35%
Mixed	35%	46%
Syllabic	17%	19%
No answer	4%	0

Data from teacher questionnaire.

Although the whole-word method is recommended by the curriculum and reading materials, the mixed method is considered the most effective by teachers in service, while teachers in training choose the whole-word method. In the field, the mixed method is a combination of tools and approaches derived from both approaches (whole word and syllabic). The fact that teachers prefer the mixed method reflects recognition of the limitations of the whole-word approach and the need to diversify the reading instructional practices based on students’ actual level. The qualitative interviews show that the level of students can vary depending on whether or not they went to preschool, where they could have been introduced to decoding of letters or reading. Preschool education is reported to make learning reading easier by 20 percent of teachers. It is, therefore, possible that teachers who teach students who have never been to preschool feel compelled to use simplified methods that focus more on the basics, such as correspondence between sound and symbol to fill the knowledge gap left by inability to access preschool.

¹⁴ The syllabic method can be considered similar to the phonetic method.

The survey revealed that a significant number of teachers propose to simplify methods and reading materials for early grade reading, as discussed in the section on the analysis of practices to apply. The survey also showed that the number of sessions devoted to the development of such skills may depend on the interest shown by the teacher and the students' level. To measure these two indicators, we asked teachers to indicate for each skill the grade in which they think it should be taught.

Table 13: Skills Deemed to Be Important for Learning Reading, by Level

Question: "In which grade do you think the following skills are important for the learning of reading?"	Never	1 st	2 nd	3 rd
a) Grapheme-phoneme correspondence (letter sounds)	2%	91%	7%	0,5%
b) Phonemic awareness (words are composed of oral sounds)	0,8%	83%	15%	1%
c) Vocabulary	0,3%	31%	44%	25%
d) Comprehension (oral or written)	...	33%	42%	25%
e) Writing	...	82%	16%	2%
f) Fluency	...	10%	62%	28%
g) Oral expression	...	39%	42%	19%
h) Grammar rules	3%	9,5%	18%	70%
i) Morphology (roots, structure of words)	3%	13%	32%	53%

Data from teacher questionnaire.

Most teachers agree about the importance of teaching correspondence between sound and symbol and phonemic awareness in the first grade, while they associate grammar rules and the awareness of word morphology with the third grade. The data show that morphology is seen as a more complex skill to be taught later, but the recent research cited above (Boyle, et al.) indicates the opposite—notably that it is a tool that can be important to learn reading skills in the early years. As to vocabulary and understanding, perceptions vary widely. This may be explained by the fact that these are important skills to focus on across grade levels, yet the respondents were limited to only one choice. Interestingly, the vast majority of teachers believe that writing is essential in the first year. This may indicate a rather mechanical representation of the writing (learning to form letters and words), not free writing or sentence composition that may accompany the learning of reading through the different levels. This also corresponds to the perception of the majority of teachers who think that children can learn to read and write at the same time (see *Table 11*). In the next section, we will see if teachers' practices correspond to their perceptions.

These analyses indicate that teachers have low expectations of students' capacities to acquiring some reading skills in Arabic starting from the first year, and they believe themselves not well-equipped to teach these skills in Arabic by adopting new approaches in this field. Similarly, they do not tend to practice differentiated teaching based on the capabilities of each student, although they may lower the level of instruction for all students by integrating phonics or syllabic methods in place of purely whole-word approaches. In Morocco, reading is not considered a separate science, and teachers are unaware of the significance of the reading skills and how to teach these skills, which also explains the paradox between their perceptions or what they claim to master or know and their practices in

the classroom (see the report on Component 2 of the study, investigating preservice teacher training).

Teachers' attitudes towards the native language

In Morocco, the language used by children in the home is mainly Amazigh¹⁵ or the local variety of Arabic known as Darija. French is also used as a home language for a small proportion of upper-class urban residents.¹⁶ The official curriculum highlights the utilization of MSA, which is different from Darija, though the languages share some common words. A large body of international research backs the assertion that children learn to read best in the language they understand or use at home (mother tongue), and this skill transfers to faster acquisition of second and third-language reading.¹⁷ However, in Morocco, there is currently a discussion held about the merits of using Darija in the classroom, provoking two opposite trends: one defending the introduction of Darija in primary education and the other that rejects it. Yet Amazigh is also taught as a subject area starting in Grades 1 and 2.

In order to further enhance scientific investigation on this matter, the study looked at teachers' perceptions of the use of the mother tongue. Sampling took into consideration the areas where Amazigh is spoken; 27 percent of teachers are located in areas where three-quarters to all children in class speak Amazigh at home (*Table 1*).

Table 14: Proportion of Pupils Speaking Darija or Amazigh at Home

	Darija	Amazigh
None	22%	62%
A quarter	3%	8%
A half	2%	3%
3/4	8%	3%
All	65%	24%

Data from teacher questionnaire.

Before addressing teachers' practices in relation to this point in the next section, we will focus on teachers' perceptions and attitudes regarding the use of native languages. *Table 15*, below, shows teachers' responses to the questions in the third category of "language of instruction" in the self-administered questionnaire (with 26 pairs of statements). The analyses do not show significant differences in areas where Amazigh is the mother tongue of students, nor is there variation according to the mother tongue of the teacher. Sometimes, teachers use Darija to communicate, even in areas where Amazigh is spoken if Darija is the language used by children to interact with each other in the playground. Responses should be interpreted as providing opinions on the mother tongue, without distinguishing between Amazigh and Darija.

¹⁵ 3 spoken variants.

¹⁶ Data from the Emergency Education Program (PUM)

¹⁷ See, for example, a summary of this research prepared by RTI International: *Improving learning outcomes through mother tongue-based education*. www.eddataglobal.org/documents/index.cfm/Mother%20tongue-based%20instruction%20and%20learning%20outcomes_FINAL_updated%20Jan%202013.pdf?fuseaction=thrupub&ID=326

Table 15: Perceptions of Mother Tongue in Education

	Chosen statement	Preservice teachers	In-service teachers
C12-1	Learning to read in mother tongue helps pupils master standard Arabic (as opposed to “it is useless to teach reading in native languages because currently few reading material are available in the mother tongue”).	14%	50%
C12-2	Developing teaching material in mother tongue is not a difficult task (as opposed to “it is difficult”).	23%	61%
C12-3	I feel more at ease when I teach in the mother tongue in class (as opposed to “in standard Arabic”).	14%	21%
C12-4	A teacher equipped with the appropriate methods and material can easily teach reading in mother tongue (as opposed to “teaching children reading in mother tongue would be difficult for teachers”).	32%	57%
G21-1	Pupils learn to read fast in standard Arabic when we teach using the mother tongue (as opposed to “when the teachers do not use the mother tongue in class”).	5%	27%
G21-2	All children should learn to read first in their mother tongue (as opposed to “the Moroccan child should learn to read in classical Arabic first, no matter what is his/her mother tongue”).	5%	12%
C21-3	Using second language educational methods helps to teach standard Arabic to the Moroccan child (as opposed to “helping pupils to transfer their skills in reading in mother tongue towards learning reading in standard Arabic is a difficult task.”)	50%	56%
C21-4	A child cannot learn when teaching is conducted in a language which he/she does not know (as opposed to “is not appropriate to use the mother tongue as a teaching language”).	14%	53%

Data from self-administered teacher questionnaire.

Half of in-service teachers and only 14 percent of preservice teachers think that learning to read in their native language helps students learn better standard Arabic. However, only 27 percent believe that prior learning in the native language helps students learn standard Arabic faster. Fifty-six percent of in-service teachers think that using second language teaching methods helps teach standard Arabic to Moroccan students. While answers may seem contradictory, all responses tend to favor the logic that the native language helps children in their general learning and in learning to read; on the other hand, they do not believe in the assertion that it can become a stepping stone to standard Arabic, and so they remain loyal to the national program that promotes the standard Arabic. In addition, only 21 percent of teachers feel more comfortable when they teach in native language in the classroom.

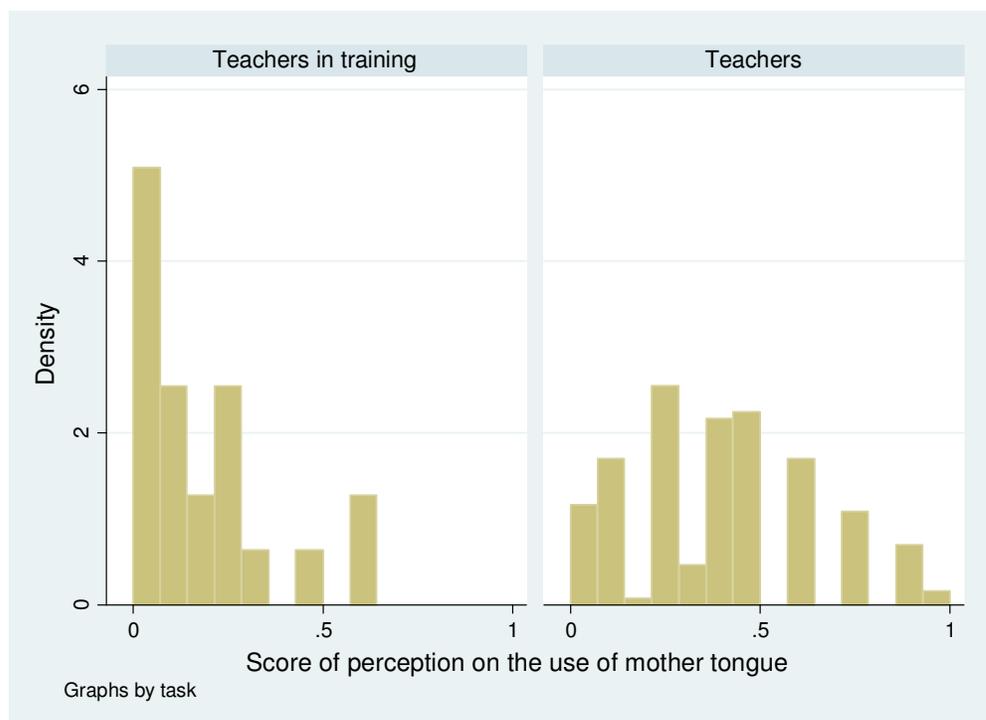
Regarding techniques and media support for education in native language, 61 percent of teachers think that developing teaching materials in a native language is not a hard task, and 57 percent think that if a teacher is provided with appropriate methods and materials, he/she can easily teach reading in native language. Generally, teachers find it feasible to use the mother tongue in education; half of them consider it as a learning-aid-tool for learning Arabic. Overall, they are more reserved about the necessity and effectiveness of using it as an exclusive educational media.

Indeed, only 12 percent of teachers believe that all children should, first, learn to read in their native language, and 27 percent believe that students learn to read standard Arabic faster when teaching is done via the native language (only 5 percent of preservice teachers).

Teachers are more likely to unfavorably view use of native languages even if the correlation is not very strong.

The percentages in **Table 15** show how the majority of individuals respond, it is also important to show the range of different responses measured by the dispersion of scores (the “score” calculated as the percentage of the expected responses chosen by the teacher). The higher the score, the more teachers consider the use of native language in education as positive and helpful.

Figure 3: Range of Scores between In-Service Teachers and Preservice Teachers Regarding the Use of the Mother Tongue



Data from self-administered teacher questionnaire.

The opinions of pre-service and in-service teachers on the use of the mother tongue are very diverse. In-service teachers agree with 41 percent of statements, while preservice teachers agree with 17 percent only. Therefore, preservice teachers are rather opposed to the use of the native language in learning, and their opinions are very homogeneous. As to in-service teachers, opinions on this matter are divided and varied.

In fact, as reflected in teachers’ opinions of the best method to use for teaching Arabic (see **Table 12**), once in the field in the classroom with pupils, teachers’ opinions may change. While preservice teachers tend to comply with the curriculum, in-service teachers adapt to children’s’ reality with mixed methods. The analysis of individual interviews, focus groups, and classroom observations enable us to assert that both teachers and students frequently utilize the native language in the teaching of reading in Arabic, notably in the first year. We observed that first-year teachers tend to agree more with the utilization of the mother tongue

than the second and third year teachers, and use it more, whenever necessary, in the classroom (*Table 16*).

Table 16: Perception Score of the Mother Tongue by Level*

Grade 1	47%
Grade 2	41%
Grade 3	35%

* Composite indicators made up of items from several instruments.

We also observed that teachers with a high school diploma (or higher) or who are graduates of Islamic studies or arts departments (in Arabic) are more favorably disposed toward the utilization of the native language compared to others. The perceptions vary according to gender, with women less inclined to use the native language. Teachers with 10 years' experience are less inclined to use the native language in teaching in general. The 10 years' experience corresponds to the period when teachers were trained under the new (2002) curriculum.

The use of the native language in the classroom is a subject of fierce debate among teachers now. The survey revealed that teachers use, to differing degree, the mother tongue. However, we observed that some teachers strongly disagree on its use in the classroom, refusing any dialect, while others use it more and more to make learning Arabic easier. In the quantitative survey, only 3 of 188 interviewed teachers spontaneously mentioned the use of the native language as a means of improvement of reading (see *Annex 3* – Analysis of open questions).

The qualitative analysis will enable us to better understand the representations related to the use of Darija in education. The analysis of perceptions based on favorable or unfavorable statements showed a large divergence in opinions. This divergence may find its explanation in the lack of official instructions regarding use of Darija, which, itself, is a result of issues relating to the unity of the Kingdom and the “foundations of the Moroccan State,” which fall outside the scope of this study. In this research, we are interested in analyzing teachers' use of Darija not by choice but by necessity in some contexts as a means to a specific pedagogical end. The use of Darija by teachers is a reality in Moroccan schools. The idea is to better understand its use and identify strategies for making use of native languages as a lever to improve reading in standard Arabic, which remains the official language of education. Viewpoints on the use of Darija should, therefore, be taken into consideration in an educational dimension, knowing that other sociopolitical elements have an impact on perceptions.

2.4 Practices of Teachers in Reading Courses

In this section, our analysis addresses the approaches and methods practiced by teachers in the classroom and the best practices in Arabic reading instruction from a teacher's perspective. The analysis is concerned with the methods and practices used, classroom management, teaching materials in use, the profiles of students compared to the basic skills targeted by the curriculum, and the distribution by field and key skills of reading.

The main skill targeted by official curricular documentation aims to make the student capable of expressing himself/herself correctly in Arabic. The objective is to enable the student to communicate orally and in writing and to read in Arabic. For the Arabic language, the “White Book” defines communicative competency as follows:

- Have a good command of Arabic
- Learn the different types of communication inside and outside the school
- Learn the different types of literary, scientific, and artistic discourse

To attain these objectives, the curricula of primary education focus on the following:

- Learning the language begins naturally with oral practice; this means giving priority to oral expression.
- The rules of grammar are not part of educational goals for the primary phase; however, they are considered base to support and facilitate the use of the language acquired. At first, they are addressed implicitly and are only introduced explicitly after the student learns more or less how to use them.

The method generally recommended for reading in Arabic in primary levels is the whole-word method, which is defined as follows:

- Read a whole story (expression)¹⁸
- Read the sentence (reading exercise)
- Writing (with focus on identifying the different places of the letter in the word)

Reading is conducted in a dual manner involving expression and writing based on functionality and practice, but without learning basic elements such as letters and their sounds before moving to “reading” sentences.

What are the practices used in the classroom by teachers to achieve these curricular expectations? What are the approaches used during the Arabic reading lessons?

Practices of teachers in the classroom

Consistent with the above mentioned perceptions (see *Table 12*), the study revealed that teachers use the mixed approach, alternating between two reading forms, notably, the whole word and the syllabic, in all ways: by passing from text to sentence, then to syllable, word, or letter, or by using the targeted word or syllable as a starting point for reading. Some teachers state that they use also the alphabet method, which consists of teaching students how to read letters from the alphabet book (primers).

In general, teachers use, at varying degrees, a method that consists of dividing the textbook into three sequences:

- Introduction: which is in the form of a start-up situation or stimulus, that is, introducing the reading text based on the use of images or items; the text is read by the teacher and some students. During the first year, this sequence consists of isolating the word and/or the letter to be read once and twice in order to learn it.

¹⁸ If pupils have not yet learned to read, the word “read” in this context most likely means “recite” or “repeat after”.

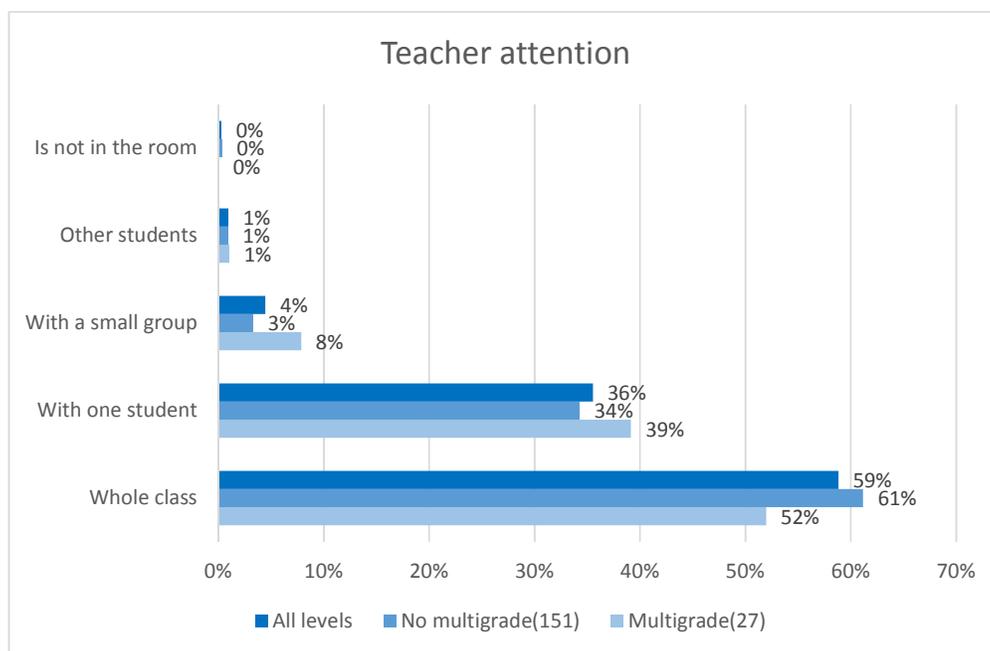
- **Comprehension:** this consists of explaining the vocabulary of the text, and a series of questions to test the comprehension of the text by the students. In the first year, this sequence focuses on decoding syllables, their pronunciation, and the links that exist between them.
- **Consolidation:** using exercises or homework that the teacher has the children do either immediately in the class or at home. Writing is part of this sequence. It is about discovery of the sentence and its structure (handwriting, grammar, syntax).

This organization directly stems from the official curriculum and teachers’ training as it is provided today. At the level of each session, our qualitative classroom observations allowed us to record a large variety of practices, which demonstrate that teachers do not use one method and do not use a unified approach. In the introductory session, for example, the reading of the text reveals several problems that are an obstacle to the achievement of the objective expected from reading. Indeed, as demonstrated by the qualitative study and classroom observation, a significant proportion of teachers do not employ efficient learning strategies for reading in Arabic as defined by the corresponding international literature (Boyle and al., 2014). We also noted that when the teacher starts providing the reading lesson to students—the period when you expect students to listen carefully—in fact, we observed in the classroom that they do not listen and start talking to each other, sleep, or lose focus on active listening. This is understandable if the level of the selected text is too difficult, or if the language of the text is not understood by all children.

The data presented below are derived from the classroom observation instrument that records approximately 15 minute of a 30-minute period (*Table 17*). Every two minutes, the surveyor records what teachers and students are doing. The data is expressed in percentage of observations, which gives us an idea of the proportion of the lesson spent on that category. For example, we found that during 59 percent of observations, teachers focused attention on the whole class, for 35 percent of cases teachers focused attention on one child (mainly that child reading aloud), and 4.5 percent of the teachers’ time is dedicated to a group of students.

Table 17: Class Management during the Reading Lesson

Teacher’s attention directed towards	All levels	Multigrade (27)	Non-multigrade (151)
All pupils in class	59%	52%	61%
One pupil	35%	39%	34%
One small group	4.5%	8%	3%
Other than on pupils	0.9%	1%	0.9%
Is not in the classroom	0.3%	0%	0.4%
Total	100%	100%	100%



Data from the classroom observation tool.

The observation protocol also records what children are doing at each 2-minute interval. Analysis of these data indicates that it is difficult to make all students participate. According to the observations and general comments of the surveyors about the lesson, most students actively participated in about 46 percent of observations recorded (see *Table 18*). In 15 percent of observations, the teacher called more often on the children in the front rows than those in the back seats.

Table 18: Participation of Pupils in the Reading Lesson

Answer	%
Pupils participated when called to do so but they did not do it on a voluntary basis.	28%
Pupils participated when called to do so but some of them did it on a voluntary basis.	25%
Most pupils participated actively in the lesson.	46%
The teacher calls more on pupils sitting in front rows rather than those sitting in the back of the class.	15%
The teacher calls more on boys than girls.	9%

Data from the classroom observation tool.

According to this analysis, teaching methods are primarily teacher-centered so there are chances that teachers do not involve all students; they may focus on the best students and those in front and ignore others who don't pay attention in class. Indeed, students focusing attention on the teacher takes up a large proportion of class time. The students spend about 22 percent of their time looking at or listening to the teacher, and 23 percent participating in a general manner to the teachers directives (for example, raising their hand). It is encouraging to observe that the students spend about 37 percent of their time on individual reading aloud. However, we do not know if this is actually reading (decoding) or rather repetition from memory, which could not always be easily distinguishable. It is also interesting to note that

the share of activities does not change much from one grade to the next; for example, Grade 3 students do no more writing than Grade 1 students, although they should be more capable.

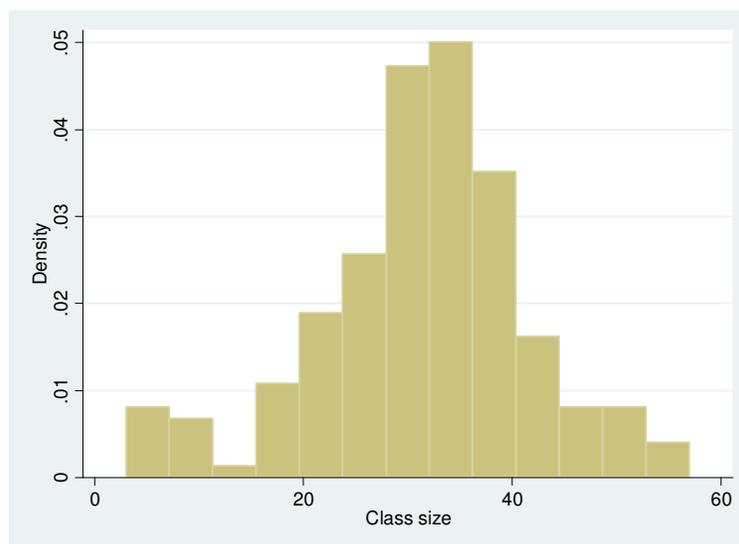
Table 19: Activity of Pupils

Action	All levels	Grade 1	Grade 2	Grade 3
Recitation	0.9%	0.2%	1%	25
Whole class reading	1%	2%	0,3%	0.75
Individual reading aloud	37%	32%	40%	39%
General participation	23%	17%	23%	29%
Questioning	0.2%	--	0%	0.1%
Listening to/looking at the teacher	22%	22%	22%	21%
Writing on board	2%	4%	0.1%	0.3%
Writing on paper/handbook/slate (dictation)	3%	6%	2%	2%
Writing on paper/ handbook (open)	1%	0/8%	3%	0.4%
Small groups work	0.3	0.3%	0.7%	--
Individual activity	2%	2%	2%	1%
Silent reading	2%	5%	--	1%
Other activity of expression (game, simulation)	0.7%	0.3%	1%	0.6%
Orientation/Transition	3%	6%	1%	1%
Other	0.6	0,6%	1%	0.2%
None	0.9	1%	1%	0.5%

Data from classroom observation.

The class size can be a factor for choosing a given teaching method. Our research calculated a reasonable average of 29 students per class; however, this average may hide the range of variation between class sizes, ranging from 3 to 57 students per teacher in our sample. The multivariate quantitative analyses do not highlight a very significant effect of class size on the practices. *Figure 4* shows the distribution of class size in this study.

Figure 4: Distribution of Class Size



Data from teacher questionnaire.

Organizing students in groups in class is a way to facilitate the exchange between students and stimulate the active participation of each student in a common task, for example, sharing the reading material. This is the opposite of having children sit in rows facing the board, which is typically associated with a passive, teacher-centered approach. In a group approach, it would be easy for the teacher to apply differentiated instruction by level and give attention to all students in a balanced way by circulating around the class to supervise the students' work. For the students, it is easier to engage in collaborative activities or access didactic materials (such as a classroom library) when students are configured in groups. **Table 20** shows the percentage of classes in which we observed such positions.

Table 20: Classroom Configuration

Position	%
Tables and chairs in rows facing the board	81%
Tables and chairs in small groups	18%
Other	0.8%

Data from classroom observation tool.

The most common classroom configuration position (in more than 81 percent of cases) is “Tables and chairs in rows facing the board,” with the exception of multigrade classrooms where the position of tables in groups is more frequent. As expected in multigrade classrooms, the teacher works more in groups.

Although we cannot claim that having the tables divided in groups is the only guarantee of a positive effect on learning, it is clear that some teaching strategies that are known to be effective cannot be applied in a class with tables in rows. For example, data potentially demonstrate using small groups as a way to divide children by ability and provide remediation, or providing individual feedback. In fact, only 30 percent of teachers stated they practice small group activities in class as a way of addressing observed learning difficulties (39 percent for teachers of multigrade classes). Sixty-one percent state that they use individual assignments in class, but data from observations somewhat contradict these assertions, given the low percentage of individual work.

As a result, we can say that teachers are not well equipped from the pedagogical point of view to teach in a multigrade class and in large classes, and that they find it difficult to look for the appropriate approaches that can help them deal with students who struggle with learning. The methods adopted by teachers are selective and passive. They do not guarantee the mobilization or the participation of all the students in class, nor do they promote differentiated learning based on needs, findings that were confirmed by the quantitative and qualitative data.

Frequency of teaching reading skills

Two data sources can be used to analyze the distribution of lessons by subject area: classroom observations and quantitative questionnaires. Classroom observation consists of a set of observations recorded at the end of the school year, whereas the responses to the questionnaires, generally, seem to be a more reliable source. Cross-examination of the two sources of information shows correlations between the declarations made and the observations regarding the letter-sound correspondence (decoding), word morphology,

dictation, and writing. For comprehension, such correlations between observations and statements seem to be insignificant.

We will, now, examine the distribution of the number of lessons per grade in key areas of reading: correspondence between sounds and symbols and knowledge of the morphology of words (decoding), oral language development, and text comprehension as opposed to more formal knowledge/skills such as the knowledge of grammar and dictation.

Overall, teachers report teaching the number of sessions required by the official curriculum, except for a slight variation in the second year (7 out of 8 official instructions). *Table 21* shows details of reading lesson numbers.

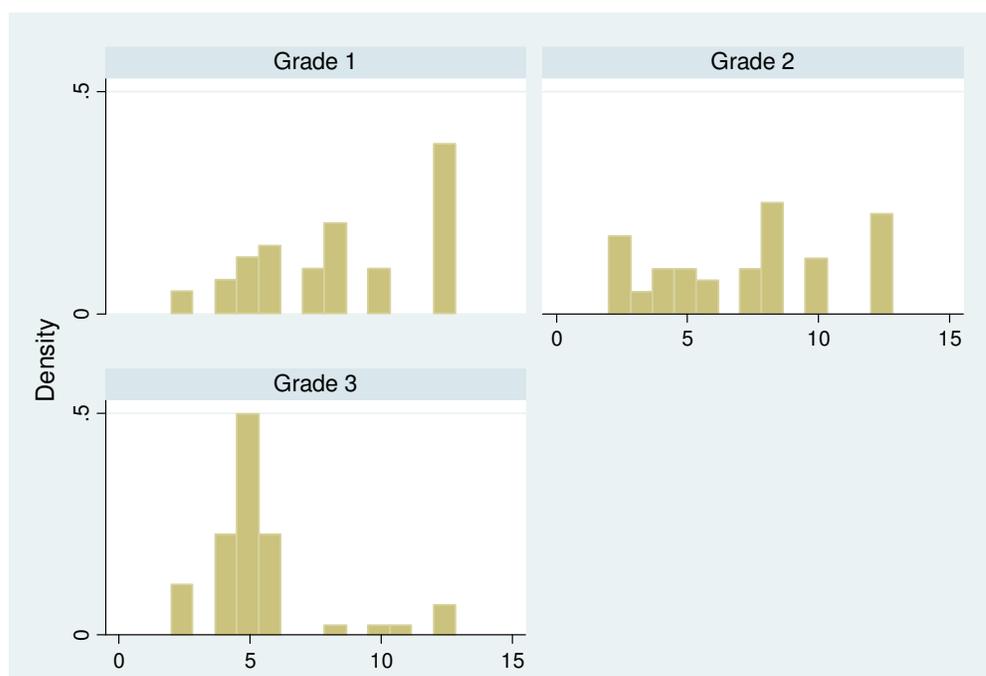
Table 21: Number of Reading Lessons per Week

	Level 1		Level 2		Level 3	
	Average	SD	Average	Gap type	Average	SD
Number of sessions per week (stated by teachers in our study)	8.9	0.4	7.0	0.4	5.6	0.4
Official time (teaching guide 2009)	9		8		5	
Duration of sessions (teaching guide 2009)	30 minutes		30 minutes		30 minutes	

Source: Adapted from MENFP Pedagogical Guide (2009)

These central trends conceal great disparities between teachers, notably on the first and second levels, as shown in *Figure 5*.

Figure 5: Number of Reading Sessions as Stated by Teachers, by Level



“In a typical week, how many reading lessons do you teach?”

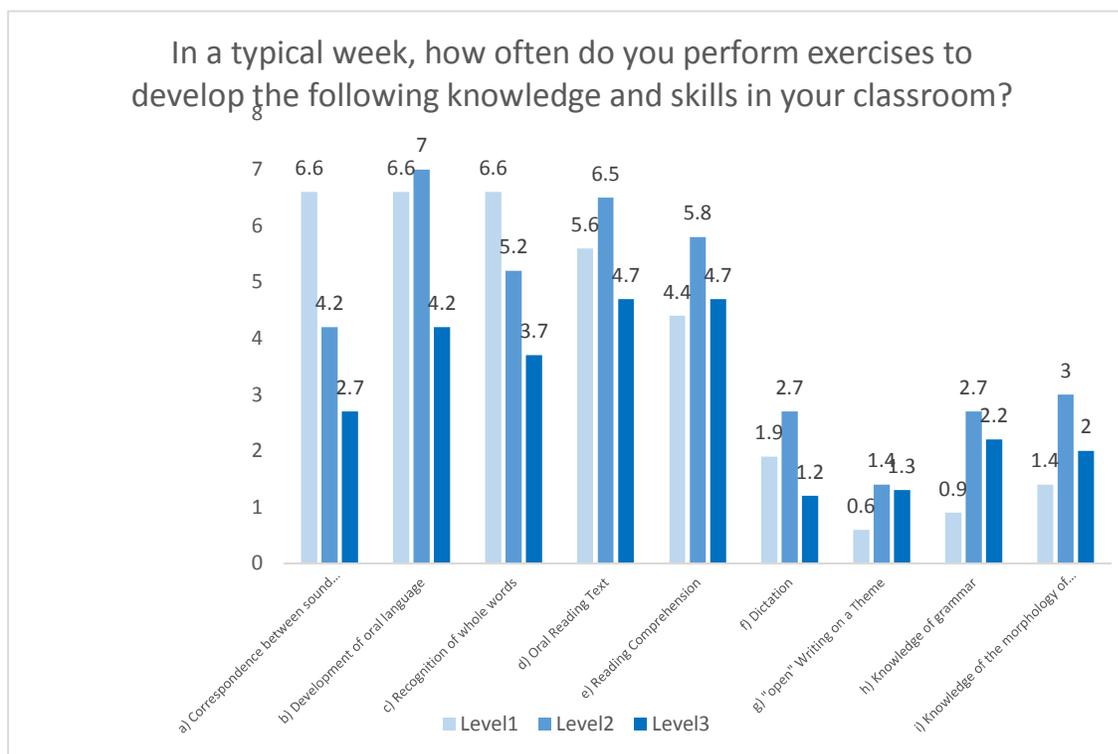
Data from teacher questionnaire.

Twenty-one percent of teachers provide at least five weekly reading lessons for the students of Grade 1; 35% of them do so with the students of Grade 2. Because the number of reading classes is limited (officially 9 for the first grade, 8 for the second grade, and 5 for the third grade), teachers have to choose how to divide the sessions by field/key skill.

Table 22 shows the number of sessions by field/skill according to level, as stated by teachers.

Table 22: Average Number of Sessions per Field by Level (Statement by Teachers)

“In a typical week, how often do you teach the following knowledge and skills to pupils in your class?”	Level 1	Level 2	Level 3
a) Correspondence between sound and symbol (letter)	6.6	4.2	2.7
b) Development of oral language	6.6	7.0	4.2
c) Recognition of whole words	6.6	5.2	3.7
d) Oral reading of texts	5.6	6.5	4.7
e) Text comprehension	4.4	5.8	4.7
F) Dictation	1.9	2.7	1.2
g) “Open” writing on a given topic	0.6	1.4	1.3
h) Knowing grammar rules	0.9	2.7	2.2
i) Knowing words’ morphology (roots, structure)	1.4	3.0	2.0



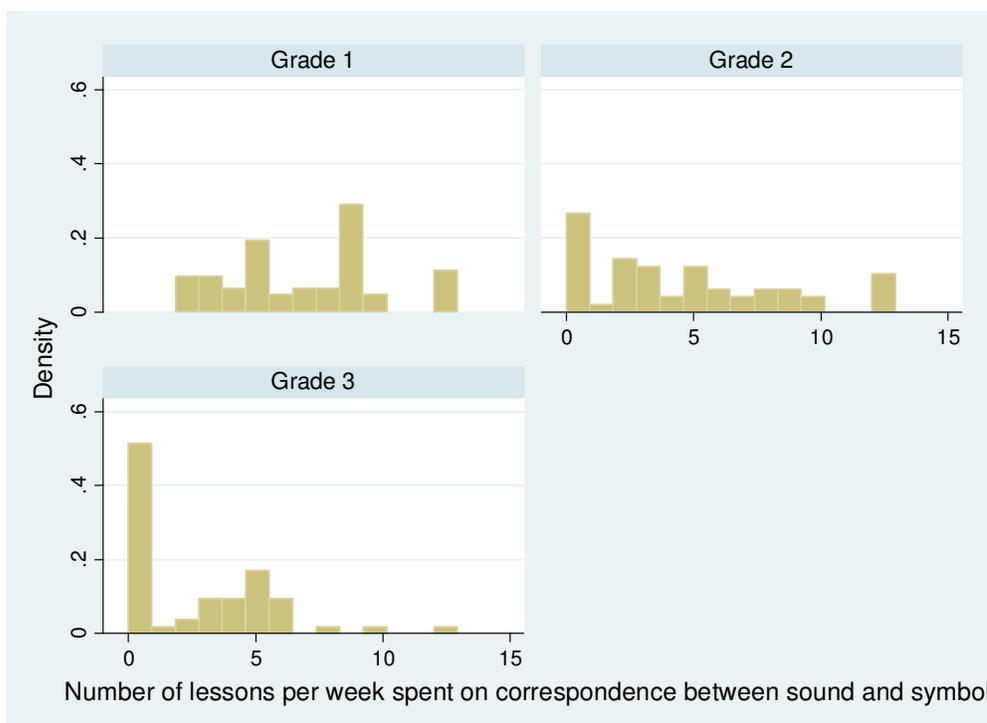
Data from teacher questionnaire.

In compliance with the curriculum objectives, the amount of time dedicated to the knowledge of grammar rules or dictation (formal knowledge) is relatively low.

Regardless of grade level, a principal component analysis will help to distinguish two dimensions¹⁹ of the distribution of subject matter: one is made up of grammar, knowledge of word morphology, and open writing on a given topic, the second concerns all the other skills.

The following graphs in **Figure 6** show the distribution of the sessions of the key fields by levels as reported by teachers (“How many sessions per week address the following fields?”).

Figure 6: Number of Sessions Dedicated to the Correspondence of Sound to Symbol, by Level



Data from teacher questionnaire.

The sound-symbol correspondence is hardly ever used in the third year (47 percent of teachers in the third year and 24 percent of teachers in the second year do not teach it at all), which is normal because such skills should/could have been acquired earlier. However, it is advisable to make sure that the students who have not acquired earlier decoding basics do not face hardships.

There are significant and important differences between the proportion of pupils struggling with learning (as reported by teachers, not verified by the study) and the number of sessions dedicated to the sound-symbol correspondence, to the recognition of whole words, to the development of oral language, to oral reading of texts, and to text comprehension. The more struggling students there are in the class, the higher the number of sessions.

On the other hand, the number of sessions dedicated to other fields (dictation, writing, knowledge of grammar, and morphology) is not correlated with the percentage of students with special educational needs. Indeed, official statements indicate that the number of

¹⁹ These two dimensions explain 50% of the variance.

sessions is determined by “the level of prior learning,” and that number is generally well respected by teachers. The question is whether the curriculum deserves further clarification on the various key skills of reading such as decoding, given that there is a tendency to follow the official instructions closely, or whether to give more room for flexibility to teachers.

Likewise, the proportion of time dedicated to group work is, according to our observation, significantly associated with a larger number of students with learning problems; this implies that there exists a school support/remediation program.

Yet, the amount of flexibility, if applicable, must be supported by frequent measures of student learning to see if they all have developed the targeted skills before moving to other learning fields. It was found that the official curriculum does not recommend specific skills to learn at each level, for example, “at the end of the first year, a student must know how to write his name,” or “... must know all the letters of the Arabic alphabet.” So how do teachers decide to move forward or not in the instructional sequence? Do they follow a plan without considering the previously acquired skills? In the following section, we will analyze teachers’ practices in relation to the assessment of acquired skills.

Practices in monitoring of student learning

Here are some of the difficulties faced by students during their learning how to read in Arabic, as reported by teachers:

- Students show confusion due to similarities in the sounds of some alphabets (kaf **ك**, kkaf **ق**, hamza **أ**) and some graphemes (s, d, t **ط، ض، ص**), ((**همزة الوصل و القطع**)).
- Students find it very difficult to express themselves orally (oral expression/spoken Arabic).
- Students are unable to learn the diacritics (tashkil), conjugation, and grammar.
- Students have many problems with punctuation.
- Students are unable to develop the skill of deciphering words.

In other words, students do not learn the basic components of reading: correspondence between the sound and symbol (related to the alphabet and decoding), vocabulary, and comprehension (related to oral expression). Given the various difficulties faced by students in learning to read in Arabic, what strategy do teachers use to help them?

Teachers assess students to find out the difficulties students face. Teachers say they also use assessment results to implement activities to support students with learning difficulties in reading (85 percent) and to inform the parents of the progress of their child (21 percent).

Table 23: Reasons for Testing Pupils

Answer	%
Administrative reason	43%
Providing support to pupils with difficulty	85%
Adapt the course with the pupils’ needs	51%
Inform parents of their child’s progress	21.5%
Identify the difficulties of pupils	0.7%

Data from teacher questionnaire.

What do teachers do with children facing difficulties in learning? The majority of teachers (61 percent) say they provide customized support to such children/students in the classroom, while (43 percent) do suggest individual support to these students. Also, a notable finding is that few teachers communicate assessment results with the parents (30 percent), and that 3 percent of teachers don't do anything to address diagnosed difficulties. See *Table 24*.

Table 24: Providing Support to Pupils with Difficulty in Reading

What do you do to help pupils facing difficulties with learning Arabic?	Percentage%
None	3.4%
Propose individual support for home usage	43%
Propose individual support for class usage	61%
Propose activities to be conducted in small groups in class	30%
Review with all pupils in class	23%
Communicate with parents	30%
Classify them and group them in small groups	0.4%

Data from teacher questionnaire.

The support provided by teachers to pupils is not consistent. Some provide continuous help throughout the school year, others do it occasionally. In addition, teachers' approaches are different with regard to this subject. "At the start of the year, I try to work gradually with all students to brush up the level of those facing difficulty using short sentences instead of long ones. However, the problem persists mainly in dictation. They fail to do it. This means support should be given to them by another teacher who will work with them in another classroom until they acquire reading skills," reports a third grade teacher in an interview. This gives us food for thought concerning the relative feasibility of having a program or specialized reading teachers for Arabic or generating a general improvement in reading instruction by introducing more effective methods starting from the first year to have fewer children with identified needs for remediation by the third year.

Failure to use group work (by both in-service and preservice teachers, as observed in the field and confirmed by the quantitative data) and high class size do not facilitate, in some cases, the practice of participatory and proactive approaches involving all students in the class.

In-service and preservice teachers are generally in favor of use of modern techniques (child-centered) for teaching of reading. The majority of them have positive attitudes vis-à-vis the skills that students need in the first three years of primary school, even if a number of them believe that some children do not have the ability to learn to read regardless of methods. However, the practices used by many teachers correspond to methods rather focused on the teacher.

Practices with respect to native languages

As mentioned above in the section on teachers' perceptions with respect to the use of native languages, there exist two opposing trends. "Anti-Darija" teachers assert that the use of Darija will result in a loss of cultural identity, isolation from the Arab world, and the uprooting of the Muslim-Arab culture and the students will never be able to demonstrate a good command of Arabic. The "pro-Darija" teachers believe that the use of native languages

in class can enhance learning. They argue that Darija can be a real help for acquiring reading skills in Arabic, provided that it is used to address the most pressing bottlenecks and to overcome a difficult situation for the learner. What are the current practices in class?

We observed that 74 percent of teachers use simple Arabic to explain to students and facilitate the transition from Darija to Arabic for them; 37.5 percent praise or reward students for using the appropriate language. A teacher said: “To help students understand, I use the elements of local environment. So I have to go through Darija. I use it but not permanently; I do it to gradually push them to learn Arabic. In my opinion, if a student expresses himself/herself well in Darija, it means he/she has reached the goal. In this case, with a little encouragement and educational support, it is easy to push him towards replacing it by Arabic.”

Moroccan teachers are relatively poorly equipped and trained to use the native language to facilitate the teaching of reading. Yet, a third of them say they always or often use it in the first year (11% in the second year and 14% in the third year). We also observed a consistency between statements, classroom observations, and perceptions measured via the 26 pairs of statements (*Table 25*).

Table 25: Statements and Observations about the Use of Darija and Perceptions

Declaration of the teacher on the use of Darija	% of answers per category ⁽¹⁾	% of observations with the use of Darija ⁽²⁾	Perception score ⁽³⁾
Never	10%	3.5%	27%
Rarely	8%	5%	35%
Sometimes	13%	10%	40%
Often	42%	20%	46%
Always	27%	44%	63%

Data from teacher questionnaire, classroom observation tool, and self-administered teacher questionnaire; the higher the score, the more in favor the teacher is of using native languages in teaching.

According to *Error! Reference source not found.*, 69 percent of teachers say they “often” or “always” use Darija in class; in these classes, 64% of observations effectively confirm its use, while Darija was only observed in 3.5 percent of observations in classrooms where teachers say they never use it. Hence, it seems that teachers’ declarations are coherent with the classroom observations and reassure us as to the reliability of the data.

The higher the teacher’s perception score regarding the native languages, the more he/she uses Darija. Teachers who say they “always” make use of it agree with 63 percent of statements favorable to the national language. Those who say they “never” use it agree with 27 percent of statements only. For Amazigh, such a relationship has not been measured, and no classroom observation recorded its use (88 percent of teachers say they “never” use it).

When we analyze the characteristics of teachers who likely use Darija, we find out that few variables are significant outside the school year (grade) and the in-service training associated with a greater chance of use of this language (*Table 26*). This utilization is related more to perceptions than to characteristics of teachers or those of the classrooms. Still, it is observed that the higher the percentage of students with special educational needs (according to the

teacher), the more he/she uses Darija. The proportion of students with special needs is two times greater in the classrooms where teachers state they “always” use Darija than in those where they say they “never” use it.

Table 25: Logistic Regression on Variables for “Often or always using Darija in class”

	Coef.
Score of perceptions on pedagogy and reading	1,779
Score of perception on native languages	3,114***
Teacher is female	-1,034
Teacher with more than 10 years' experience (seniority)	1,103
Teacher has more than a high school diploma	0,420
Teacher has a degree in Islamic studies	0,083
Teacher had an in-service training	2,14**
The school is located in an Amazigh-speaking area	0,319
The school is in a urban commune	-0,361
Satellite school	-0,614
Multigrade class	-0,375
Class size	0,0008
Score of teaching material	0,001
School year	-0,955***
% pupils in difficulty according to the teacher	6,941***
_cons	-4,730

Statistical significance is: *** 1%, ** 5% * 10%
Data from teacher questionnaire.

The results of the qualitative analysis are compliant with the data output: the majority of interviewed teachers do use Darija and showed diverse attitudes towards its utilization. Several teachers consider that the use of the native language is not a target but rather a means to facilitate the acquisition of reading skills in Arabic. The mother tongue is perceived as a guarantee for ensuring comprehension by students and moving to Arabic. This finding suggests that measures need to be taken to recognize and support its use in the national curriculum for the first three years of primary school, notably with regards to the development of educational material in the native language.

2.5 Links between Teachers' Characteristics and Perceptions and Teachers' Practices (Factors That Have an Influence on Practices)

The use of multiple regression techniques allows us to analyze factors that influence perceptions/practices. Several factors that can influence perceptions were taken into account. At first, seniority appears to be an essential factor. The differences of perception between in-service teachers and preservice teachers are partially explained by differences in field experience. Seniority was calculated from the date of preservice training. In addition to number of years of experience, it is linked to the period of preservice training and to the educational orientations of various periods. There is a correlation between seniority and perceptions of “modern” techniques of learning to read, particularly for teachers who have

more than 20 years of seniority (which is completely logical). The oldest teachers are more resistant to innovative techniques for teaching reading as well as to the use of mother tongues.

Several factors can be taken into account to explain variations in perceptions:

- Individual characteristics of the teachers (gender, academic diploma, type of studies, seniority, and motivation to become a teacher)
- Teaching conditions (urban or rural area, Amazigh zone, satellite school, multigrade class, classroom materials, class size, level taught, motivation to become a teacher)
- In-service training

These various factors were included into regression models to explain the variations in perceptions (*Table 27*).

Table 26: Regression Model of Scores of Perception

	Perceptions of modern techniques	Perceptions of mother tongue
	Coef.	Coef.
Women	0.026	-0.057
Seniority more than 10 years	-0.027	-0.100*
Higher level than “bac”	0.029*	-0.063*
Studied (Islam or arts)	-0.037**	0.062*
Motivation for becoming a teacher	-0.034**	0.040
In-service training	0.079**	-0.010
Amazigh spoken by children	-0.035	-0.011
Urban	0.005	-0.061
Satellite school	-0.004	-0.049
Multigrade class	0.002	-0.068
Class size	-0.0001	-0.002
Classroom materials index	1.43E-06	0.0001*
	R ² 0.13	R ² 0.09

*** 1%, ** 5% * 10%

Data from teacher questionnaire and self-administered teacher questionnaire.

With regards to perceptions about modern techniques, teachers who have more than a high school diploma have higher scores; whereas those whose motivation to become a teacher was the love of children or who did Islamic or literature studies (in Arabic) have lower scores. In-service training on reading (5 percent of the teachers only) also influences perceptions favorably (*Table 28*).

Table 27: Scores of Perception by Variable

	Rural	Urban	Men	Women	Other studies	Islamic studies or arts	BAC	More than BAC	Without FC	With FC
% of each category	75%	25%	47%	53%	47%	53%	51%	49%	95%	5%
Score of perception of practices	84%	85%	82%	87%	86%	83%	83%	86%	84%	89%
Score of perception of mother tongue	44%	37%	48%	36%	39%	45%	43%	41%	42%	39%

Data from teacher questionnaire; table derived from composite index of perceptions.

It would have been very tedious to examine one by one the correlations between variables to link perceptions and practices. Furthermore, the questionnaire is built so as to cover various aspects of a teacher's job, and each variable is not enough on its own to characterize a latent behavior of the teacher. For example, the question “How often do you assess your pupils?” does not allow on its own a description of the teachers’ behavior.

It is thus necessary in this kind of study to group variables within composite indices that are more likely to reflect a latent behavior or a general teaching capacity. Similarly to the 26 questions, the teachers’ behavior or perceptions are thus grouped through scores that reflect “best practices” as defined by international research and put in practice by teams of experts. The scores combine category-specific and continuous variables (for example, the number of different materials used in the classroom).

The perception score is calculated from:

- the used method (global or else);
- the levels at which the various reading skills must be reached according to the teacher—the earlier the better; and
- the level of teaching confidence.

Two practice scores are calculated, one from the questionnaires, the other from in-class observations. The practice score based on the answers is calculated from the following elements:

- Number of sessions dedicated to reading
- Frequency and modes of assessment
- Methods of problem solving
- Extracurricular activities
- Variety of teaching aids used
- Exchanges between teachers

The practice score based on observations is calculated from the following elements:

- Organization of tables/benches in the classroom (in groups is considered better than everybody facing the board)
- Equal/fair participation of pupils (particularly girls and pupils sitting in the back)
- Diversity in use of standard Arabic and the mother tongue (change of register)
- Methods of pupil assessment

With respect to internal coherence, the components of the observed practices' index are all quite strongly correlated, as are the components of the perceptions' index (Cronbach's alpha 0.74) and of the declared practices' index (Cronbach's alpha 0.67).

Before describing the relations that can exist between perceptions and practices, it is useful to describe the different teachers' situations. The previous analyses showed consistency in perceptions about modern techniques of learning to read and more diversity regarding the use of mother tongues. With regards to observed practices, some diversity is observed with both preservice teachers and in-service teachers. The observations are related to some teachers whose practices are not aligned with expectations and whose score is within more than two standard deviations (-2) from the mean, and conversely teachers whose practices are very in sync with international definitions of effective teaching methods.

With regards to declared practices, variations are more significant (note that this index contains more components than the previous one). The scores were standardized to allow for comparison. The perception scores are also very scattered. There are thus enough variances in practices and perceptions to enable introducing regression models that compare perceptions and practices.

The observed perceptions and practices differ by level. We notice more homogeneous perceptions and practices with third grade teachers. With first year teachers, the observed practices are more aligned with expectations, but their perceptions are less so. The grade level is an important factor to take into account in analyses, particularly regarding mother tongues, more used and better perceived by first year teachers than by others.

First off, we will calculate correlations between the various indices of perceptions and practices (*Table 29*).

Table 28: Correlations between the Different Scores of Perception and Practice

Correlations	Stated practices	Perceptions (questionnaire)	Observed practices	Perceptions of teaching techniques	Perceptions of mother tongues
Stated practices	1				
Perceptions (questionnaire)	-0.055	1			
Observed practices	0.2553*	-0.0992	1		
Perceptions of techniques	-0.0232	-0.0812	0.0227	1	
Perceptions of mother tongues	-0.0285	-0.0158	0.0817	-0.2337*	1

*Statistically significant

Data from teacher questionnaire and self-administered teacher questionnaire.

Except a correlation between observed/declared practices and perceptions about modern techniques of learning mother tongues, there is no significant correlation between perceptions and practices. When these correlations are calculated by level, only a significant (negative) correlation appears between perceptions about modern techniques and observed practices.

Nevertheless, as we saw previously, the characteristics of the teacher, pupils, and classroom are factors that influence perceptions and can influence practices. It is thus advisable to argue for a multivariate approach to better characterize the relations between the different variables.

To do so, we built different regression models that introduce contextual factors and perceptions. Practices are used as an independent variable (*Table 30*). This is also an opportunity to examine relations between general teaching practices and distribution of sessions by type of skills taught (implemented curriculum). As the scores of observed and declared practices are correlated, they are grouped in a single index. The results are presented for every level because the distribution of sessions by taught skills varies according to the level/grade.²⁰

Table 29: Regression Models of the Score of Practice

	Level 1 (65)	Level 2 (52)	Level 3 (57)
Score of perception (questionnaire)	0.062	0.299	-0.103
Perceptions of modern practices (26-statement tool)	2.42	-11.234***	1.315
Perceptions of mother tongues	-0.794	0.793	0.289
Women	-0.508*	0.391	-0.918*
Seniority exceeding 10 years	-0.670	1.329*	-0.578
Level higher than Bac	-0.707	1.878***	-0.367
Studied (Islam or arts)	-0.295	0.372	-0.157
Motivation to become teacher	1.045***	0.551	0.286
In-service training	0.365	-1.087	-0.411
Amazigh spoken by children	-0.675*	-1.613***	-0.687
Urban	0.72	-0.180	1.079*
Satellite	0.513	-0.183	0.656*
Multigrade class	-0.995*	4.501***	-0.350
Class size	-0.011	-0.011	-0.026
Classroom materials index	0.002***	0.002***	-0.001
Teaching practice includes....			
a) Correspondence between sound and symbol	-0.138*	0.136**	0.105
b) Development of oral language	-0.009	-0.095	-0.037
c) Recognition of whole words	0.114	0.042	-0.064
d) Oral reading of text	0.312***	0.755***	0.155
e) Text comprehension	-0.01	-0.307***	-0.487**
f) Dictation	-0.02	0.124	-0.816***
g) "Open" writing on a given topic	-0.10	-0.407***	-0.354*
h) Recognition of grammar rules	0.064	0.059	0.131
i) Recognition of words' morphology	-0.068	-0.192*	0.265*
Use often or always Darija	0.734***	-1.821**	0.719
_cons	-1.667	4.232*	2.520
	R ² 0.45	R ² 0.71	R ² 0.36

Statistical significance = *** 1%, ** 5% * 10%

Data from teacher questionnaire, classroom observation instrument, and self-administered questionnaire.

²⁰ The percentage of underachieving students by teacher that can influence practices (in both ways) was introduced into the model, but the effect was not significant.

This table raises several comments. First of all, the share of explained variance is relatively important after examination of possible colinearities. The results confirm few relations between perceptions and practices. We should note however that the previous analyses showed a substantial impact of perceptions on mother tongues for the actual use of these languages in the classroom and a relation between confidence level and some practices of assessment and problem solving.

The characteristics of teachers and teaching conditions are more likely to explain variations in practices. The relative contribution of perceptions to the explanation of the variance in practices is almost nil. Individual characteristics explain 6 percent of the variance, teaching conditions 6 percent, distribution of sessions by type 11 percent (both linked to perceptions and the level of pupils in class), and use of Darija 2 percent. The explanatory power of the models is much more important when we analyze the data by level, even if the number of observations becomes relatively small.

Effects related to gender and to the academic diploma are observed. For instance, female teachers have lower practice scores, other things being equal. Those who chose to teach because of their love for kids have the best practice scores in the first year. Those who teach in Amazigh areas seem to have more difficulties; their practice scores are lower. In the third year, teachers in urban or satellite schools have better practice scores compared to teachers in rural schools. Better classroom equipment and teaching aids are associated with better practice scores in the first and second years. The number of sessions dedicated to oral text reading is associated with better practice scores in the first and second years, as opposed to the number of sessions dedicated to reading comprehension or to open theme writing in the second and third years. As for the number of sessions dedicated to learning the morphology of words, it is associated with better practices in the third year, but not in the second year. The use of Daija is associated with a positive effect on practice scores when all grades are analyzed together; however, it is positive in the first year but negative in the second year when they are separated.

2.6 Comparison of Practices between In-Service Teachers and Preservice Teachers

The questionnaires had a number of questions (particularly about assessment) that were not applicable to preservice teachers. It is thus impossible to compare the declared practices between in-service and preservice teachers. As regards to practices, we have to keep in mind the particular conditions of observations during internships, in satellite schools, in small classrooms, under the watchful eye of an enforcing professor, with preservice teachers having spent very little time in each school. More specifically, the teachers take turns in preparing the lessons, and the number of observations per teacher is reduced. All in all, we only have 16 valid observations for preservice teachers.

It is thus advisable to be particularly careful in the analysis of in-class practices for preservice teachers. The descriptive analysis shows relatively few differences between practices of preservice and in-service teachers when variables are taken one by one.

Table 31 summarizes in a few indicators the differences in practices between preservice and in-service teachers.

Table 31: Observed Practices of In-Service and Preservice Teachers

Variable	Preservice teachers (16)	In-service teachers (178)
Organization of tables/ group	13%	18%
Participation of pupils	31%	72%
The teacher calls pupils to participate, including both girls and boys	94%	91%
The teacher calls pupils to participate, including those in both the front and back seats	94%	85%
Variety of usage of standard Arabic	34%	46%
Testing pupils	100%	85%
Variety of usage of mother tongue	50%	64%

Data from classroom observation tool.

Preservice teachers seem to make pupils participate less and make use of less diverse languages in class in comparison with in-service teachers. These are undoubtedly skills that get acquired once in the field and that are also related to different perceptions about the mother tongue, as underlined previously.

3. Conclusions

This study of teachers' perceptions, attitudes, and in-class practices allowed us to reach some conclusions regarding attitudes and perceptions of teachers and the teaching of reading in Arabic in the first three years of primary school. The perceptions of teachers are connected to seniority and the level of their studies—the more senior teachers are more resistant to innovative techniques for teaching reading as well as to the use of mother tongues, while teachers who have more than a high school diploma have more positive attitudes toward these practices. From a quantitative point of view, the statistical analysis indicates few significant relations between perceptions and practices. It is more the characteristics of teachers and the teaching conditions that explain variations in practices. This is perhaps due partially to the fact that the teachers follow very closely the official program and textbooks, in spite of their declared perceptions. However, many teachers have no feeling of self-efficacy regarding their job in general (insufficiency of preservice training, lack of strategies for overcrowded and multigrade classes) and the learning of reading in particular (belief that some children cannot learn despite their efforts). In fact, according to other researchers, this effect is completely predictable: teachers who have low self-confidence due to a lack of preservice training will tend to blame the pupils and their lack of inherent capacity.

With regards to reading instruction, teachers find themselves with not much preservice or in-service training in modern methods, and thus depend on textbooks that are inadequate to the context or the level of pupils. Most of the teachers use teacher-centered methods, with little group work or work that matches the needs of pupils. On the other hand, when there are many students with difficulties the teacher will tend to spend more time on basic skills, such as correspondence between sounds and symbols; in other words, the teacher will adapt the lesson contents to the pupils' level, but all pupils will receive the same lessons. A few teachers take the initiative to adapt their teaching in spite of these constraints (using mixed methods, using Daija, etc.). But these experiences and their successes are not necessarily generalized or shared.

3.1 In-service Training of Teachers

Teachers express a positive attitude towards the job. Many chose the job because they love teaching. They choose to stay because of dedication to the job and to get better at it and be able, at some point, to innovate on the job and offer solutions or methods that can ease the difficulties linked to teaching reading skills to pupils. It is evident that a large percentage of teachers plan to remain teachers. To maintain and strengthen the teachers' positive perceptions as well as a strong feeling of efficiency, it is essential to value teachers through in-service training, in the field of teaching reading skills in Arabic, by taking into account the new knowledge developed in this subject globally.

Also, it is wise to build on innovative ideas of teachers in this field by creating a mechanism intended to promote exchanges of new ideas and “success stories” between teachers, at the local and provincial level. It is preferable that teachers who have some experience and who possess educational capacity in teaching reading skills in Arabic take part in this mechanism. According to our survey, “asking another teacher” remains the most frequently used method in seeking help. Therefore, in-service trainings should capitalize on and encourage sharing as long as there is at least one teacher at the school who is gifted with effective methods in teaching reading. At the same time, we have to be aware that there are many teachers who do not want to hear about new methods and who will not try to obtain new methods to improve the teaching of reading. A change of perceptions or practices among these “rebel” teachers will have to begin with stronger policy demands and/or an increase in the expectations of performance of pupils in connection with the continuous teachers' assessment.

Half the teachers are not equipped educationally to teach either in a multigrade classroom or in a crowded classroom. In a crowded classroom, work with underachieving students leads to negative self-assessments. It is recommended to consider implementing a program of standard support for students who are underachieving in reading Arabic and to implement a program of in-service training.

While in-service training represents a feasible short-term solution, it is advisable to think, in the medium and long run, about generalizing the skills of teaching reading in Arabic in the first years. This can be done through the creation of a specialization such as a “reading teacher” or “educational inspector/councilor” who would specialize in reading at the level of CRMEF or certification programs in in-service training. This would result in an expert based at the school or shared between mother schools and satellites schools as the case may be (see recommendations of Component 2 of this study on preservice trainings). In the longer term, this kind of specialization must be accompanied by incentives in terms of career and promotion opportunities that are linked to the specialization and not only to seniority.

3.2 Curriculum and Materials

In order to teach reading skills, teachers do not use a single method and do not resort to a unified approach. The way of organizing the classroom and of making pupils participate suggests a pedagogy based on repetition and memorization rather than an approach that varies depending on the lesson contents, both oral and on paper. It is obvious in particular that the global or whole word method of teaching reading does not seem to be efficient; many teachers thus resort to mixed or syllabic methods. This is no doubt linked to the fact that many children do not acquire the fundamental elements of reading (alphabet, correspondence

between letters and sounds, phonemic consciousness), even oral capacities in Arabic, before reaching the first year of primary school. Consequently, the first year requires a lot of levelling. Reading at the level of a sentence or in dictations is too advanced at this stage. The analysis of textbooks, teachers' comments during open questions, and in-depth conversations indicated that teaching materials are inadequate. What is needed is a more simplified teaching aid that insures a good control of key elements before going on to more complex tasks of decoding, sentence reading, and dictation, while securing at the same time the acquisition of oral Arabic.

In the short term, it is certainly possible to distribute teaching aids that will help simplify teaching, while keeping the textbooks presently in use (for example, more books like "alphabet primers," books with photos associated with letters and simple words, special materials that "bridge" between the mother tongue and standard Arabic, etc.). But this distribution must be accompanied by positive messages from the MENFP that this kind of adaptation and other innovations are allowed—otherwise teachers risk remaining faithful to the curriculum and methods recommended by textbooks—and by in-service training and follow-up in the field. In addition, the simplified materials can be distributed in communities and families, with the aim of beginning to learn the fundamental elements of reading much earlier than the first primary year.

In the medium term, it would be important to proceed to more rigorous research on the effect of various teaching methods on pupils' experiences and to have an evidence base that is specific to the Moroccan context, to determine if children coming from different circles and with different socioeconomic and linguistic characteristics learn to read in a more effective way with one or the other method. Many smaller, daily experiences, or the "on-the-go research" conducted by teachers every day can provide information about perceptions and practices. The most convincing remains however the experimental and controlled research.

In the long run, it will be necessary to revise all school materials and national programs in order to align expectations and objectives in a more realistic sequence for pupils, with clearer performance criteria.

It would also be necessary to address the question of school readiness in a situation where access to preschool is not guaranteed for all children and there is great diversity in abilities among pupils who enter the first year. The debate on preschools in Morocco is not new, and recommendations on this issue seem to go beyond the scope of this study. However, one of the major difficulties in the effective teaching of reading in Arabic in the primary school is the very late start of this teaching, at 6 or 7 years old, for many children. The consequence is that the work of the teacher in the first year is more important and all the more difficult. However, teachers, who do not have either adequate preservice training or the tools and modern methods to teach reading in Arabic, feel powerless on their own to help children read. There is a great risk that many kids are left to themselves.

In the short term, realistic measures must certainly be implemented in the community, by raising awareness of parents, together with nongovernmental organizations and the civil society. Another possibility in the short or medium term would be to plan programs of preparation for starting primary school, or to revise the first year program so that the first quarter is dedicated only to Arabic language levelling.

Annex 1: References

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Annex 2: Data Collection Instruments

Table A-1. Table of Data Collected

Component and methods		Targets					Implementation
Study	Method	Nature	Code Target	Number targeted	Number achieved	% achieved	Type of tools
2	qualitative	Inspectors from central level	D	6	5	83%	Focus group (1)
		Teachers trainers	A	8	11	138%	Interview
		Teacher in training	B	8	15	188%	Focus group (2)
		Teacher in training	B	4	5	125%	Classroom observations
		Teacher supervisor/trainer	C	4	5	125%	Interview
		Staff laboratory pedagogical research	E	3	1	33%	Focus group (2)+visit
		Not planned			22	Na	Internal meeting CRMEF
	quantitative	Director CRMEF	F	15	14	93%	Online survey
		Trainer in Arabic/sciences of education	A	30	20	67%	Online survey
		Teacher in training	B	16	22	138%	Questionnaire tablet
Teacher in training		B	16	16	100%	Classroom observations	
3	quantitative	Teachers	G	150	191	127%	Classroom observations
		Teachers	G	150	191	127%	Questionnaire tablet
	qualitative	Pupils	H	20	23	115%	Interview
		Teachers	G	24	24	100%	Classroom observations
		Teachers	G	24	24	100%	In-depth Interview
		Parents	I	12	15	125%	Focus group (2)
		Teachers	G	24	22	92%	Focus group (3)
		NGOs and civil society organization	J	24	15	63%	Focus group (2)

Qualitative data collection

Component 2 qualitative data collection took place from April 27 to May 8, 2014, and from May 2 to 14 for Component 3. The persons interviewed showed interest in the topic of reading and collaborated actively in the discussions.

Though not originally planned, the research team was invited to participate in a CRMEF internal meeting on teachers training.

Interviews with pupils, parents, and NGOs were not originally planned in the terms of reference but provided valuable input following a recommendation from MENFP.

Audio files of the different focus groups and interviews have been used to transcribe the notes where necessary. All qualitative information is currently being referenced with a number in a master table, including the reference of the audio file.

Quantitative data collection for Component 3

The original plan was to survey 50 schools for Component 3 quantitative data collection, but it was also possible to survey one satellite school per mother school (*Ecole Mère*). This allowed observations of multigrade teaching. Including satellite schools increased the number of schools surveyed to 75 and the number of teachers from the 150 originally targeted to 191. Only one school that was closed in the afternoon had to be replaced by another school. Otherwise, all targeted schools were surveyed, and the response rate at the school was 100% after replacement (one school). Some teachers from targeted classes were ill or absent that day and were not replaced.

The quantitative data collection come from:

- Classroom inventory
- Classroom observations (snapshot)
- General comments from the field researcher on the lessons (use of national language, etc.)
- Face-to-face questionnaires on tablets
- Face-to-face open ended questions
- Self-administered questionnaire (26 questions)

Open-ended questions have been introduced on preferred domains of in-service training, measures to improve reading, and assistance needed in this area (general questions). This provided valuable material to triangulate quantitative data and qualitative data collected by senior researchers in order to establish profiles of teachers. Analysis of the open questions is presented in *Annex 3*.

Twenty-six questions were self-administered in a paper questionnaire, and responses were entered by field researchers into the database (via the tablets). The 26 questions each have two statements, and each teacher had to choose the statement deemed most appropriate. Although the 26 questions were presented in both Arabic and French, translation may not have embraced all the nuances between the different statements. Moreover, these questions were asked after classroom observations (30 to 40 minutes with classroom inventory) and the questionnaire (30 to 45 minutes). For all these reasons, the reliability of this instrument is lower than expected.

When cleaning the data, among the 191 teachers, 13 comments have been deleted. The result is a clean file and weighted data, merging data on classroom observations, inventory class, closed questionnaires, 26 questions, and open questions for 178 teachers.

Quantitative data collection for Component 2

The survey protocol, with minor adjustments (supplementary questions addressed to teachers in training) was identical for teacher in training and in-service teachers to enable

comparisons. However, the sample size for teachers in training does not allow valid statistical inferences about the entire population.

Data collection for teachers in training was conducted in the schools where the school-based practice took place (all were satellite schools); 23 teachers have responded to questionnaires, against 16 planned and 16 teachers observed.

The conditions of organizing teacher training in the practice schools (how they deliver reading instruction by rotation, in a small class, under the observation of teacher supervisor) prevent strict comparisons between teachers training and in-service teachers with regards to classroom observations.

To allow comparison, the same questions were asked of teachers in training and in-service teachers while noting that there is a specific component of the survey for student teachers. However, most questions about teaching practices, such as assessment methods and remediation, do not apply to teachers who spend very little time in each school who are not formally asked to evaluate students. It is possible to compare perceptions of teachers in training and in-service teachers.

An online survey was conducted among CRMEF directors and teacher trainers teaching the Arabic language and education sciences. The data suffer from non-total and partial response; 11 directors responded of 13 (since trainers from Rabat and Marrakech were interviewed in person, they were not asked to fill out the online survey) and 12 trainers.

The figure of 12 trainers must be compared with the actual number of trainers in Arabic and Education Sciences to calculate a correct response rate. Some directors of CRMEF annex facilities responsible for the training primary school teachers responded to the CRMEF questionnaire. Many directors were appointed the starting day of the survey, which could affect the level of priority given to the survey.

Sampling methods

1. Component 3- Quantitative survey of teachers

Description of the sampling frame: The MENFP provided two school databases containing general information such as the name of the school, community, province, and municipality. One database is organized to show a line = a school. The other database is organized to show a line = a school grade level. Schools are located in AREFs targeted by the study namely Rabat - Sale - Zemmour -Zaer and Marrakech - Tensift - Al Haouz. The databases provide information on the number of students by level, which will be the weight of the schools in the sample (Grades 1, 2, 3). It also contains the number of classes by grade and multigrade classes.

The second database allows us to see in advance the number of teachers in schools at all grades, though the number of teachers per grade is not specified. The number of teachers for Grades 1 to 3 is estimated by dividing the number of teachers at all grades (1 to 6) by two. The information on enrollment of students and teachers has been collected directly from the schools to directors to properly calculate sampling weights.

Exclusions (private schools, original education, satellites). Private schools are not included in the sample because they are not covered by the USAID intervention.

In the sampling frame, four schools were identified as having ‘original education’ (*enseignement originel*). They were also excluded from the sampling.

Target population. The study seeks to observe the perception and practices of teachers in relation to the teaching of reading in Arabic. To do this, the target population consists of teachers in Grades 1 to 3 in primary public schools. These will be randomly selected from each school on the basis of the list of teachers in the school on that day. Fifty schools will be included in the study, supplemented by satellite schools (one per core/mother school).

Variables of interest. There are several variables of interest in the study. We try to measure teachers’ practices (the share devoted to individual work with students, the distribution of a lesson areas, the equipment used) and perceptions (opinion on the readiness of teachers to teach reading, opinion on the objectives to be achieved by students by grade, etc.).

One of the main variables that influence teachers’ practices and perceptions is their experience in primary education and period of initial training (changing over time). The sample is designed to achieve maximum variance in teachers’ experience. Thus, the AREF Rabat was selected as most likely to include experienced teachers (which was confirmed by the delegate of Rabat), and rural schools, especially satellite schools, were selected as they potentially have less experienced teachers.

The AREF of Marrakech, with several variants of spoken Amazigh, was chosen so that the sample would include a variety of language issues.

Original sampling. As noted above, the sample will be made based on the number of students in Grades 1, 2, and 3 of each school/province/AREF. By dividing by the number of total students in Grades 1 to 3 by AREF, we have the following results (*Table A-2*):

Table A-2. Number of Schools by AREF and Environment (50) Divided by the Number of Students in Grades 1–3

	Number of schools	
	Rural	Urban
AREF Marrakech - Tensift - Al Haouz	23	10
AREF Rabat - Sale - Zemmour –Zaer	5	12

The AREF Marrakech contains enough varieties of school; it will have 33 schools in the sample, including 23 rural and 10 urban schools. As for the AREF Rabat, we have 12 urban schools and 5 rural schools. Note that the AREF of Rabat, is almost non-rural; there are often suburban areas outside Khemisset.

The sampling is done in order to reach as many delegations as possible. So we made a distribution of schools retained in each delegation based on the number of students in Grades 1 to 3 (*Table A-3*).

Table A-3. Initial Sample Design Based on the Number of Students in Grades 1–3

Delegations	Number of schools	
	Rural	Urban
Al Haouz	5.7	0.6
Chichaoua	3.6	0.5
El Kelaa Des Sraghna	3.9	1.3
Essaouira	3.6	0.7
Marrakech	2.3	6.0
Rehamna	2.3	0.8
Total Marrakech	23.0	10.0
Khemisset	3.2	2.1
Rabat	0.0	2.0
Salé	0.7	5.3
Skhirate-Temara	1.1	2.6
Total Rabat	5.0	12.0

Intermediate plan (grouping per stratum). The distribution in each delegation sometimes gives less than one school in some delegations that have a low number of students, such as urban schools in Al Haouz, Chichaoua, Essaouira, and Rehamna for Urban and rural schools in Salé. On the other hand, some areas are left with a high number of schools. We therefore proceeded to group some rural and urban delegations according to the following plan (*Table A-4*):

Table A-4. Sampling Plan with Regrouping

	Number of schools	
	Rural	Urban
Al Haouz	6.0	4.0
Chichaoua	4.0	
El Kelaa Des Sraghna	6.0	
Rehamna		
Essaouira	4.0	
Marrakech	3.0	6.0
Total Marrakech	23.0	10.0
Khemisset	5.0	7.0
Salé		
Rabat		
SkhirateTemara		5.0
Total Rabat	5.0	12.0

We get 10 strata with a more consequent number of schools per stratum (at least 4). *Table A-5* shows the final grouping distribution.

Table A-5. Final Sampling Plan

Province	Zone	Number of schools
Al Haouz	Rural	1
Chichaoua	Rural	1
El Kelaa Des Sraghna	Rural	3
Rehamna		
Essaouira	Rural	4
Marrakech	Rural	5
Khemisset	Rural	6
Salé		
Rabat		
SkhirateTemara		
Al Haouz	Urban	7
Chichaoua		
El Kelaa Des Sraghna		
Rehamna		
Essaouira		
Marrakech	Urban	8
Khemisset	Urban	9
Salé		
Rabat	Urban	10
SkhirateTemara		

Multigrade classes and satellites schools. Multigrade classes were not considered in sampling because of the already large number of strata and the reduced number of schools per stratum. Also, in practice, this criterion is difficult to test because of the change in status that may occur from one year to another.

Autonomous primary schools and core/mother schools rarely contain multigrade classes. To observe this variable, it is essential to investigate satellite schools. In the final sample, only four core/mother schools have multigrade classes. The aim was to study as much as possible one satellite school for each core/mother school surveyed. The satellite school choice was based on proximity with the core/mother school surveyed.

Results sample. In AREF Marrakech (Essaouira) an urban school was included in order to include the city of Essaouira.

Table A-6: Distribution of the Final Sample

	Number of schools		Total
	Rural	Urban	
Al Haouz	6.0	1.0	7.0
Chichaoua	4.0	0.0	4.0
El Kelaa Des Sraghna	5.0	2.0	7.0
Essaouira	4.0	1.0	5.0

Marrakech	3.0	4.0	7.0
Rehamna	2.0	1.0	3.0
Total Marrakech	24.0	9.0	33.0
Khemisset	3.0	2.0	5.0
Rabat	0.0	2.0	2.0
Salé	2.0	5.0	7.0
SkhirateTemara	0.0	3.0	3.0
Total Rabat	5.0	12.0	17.0

Sample replacement. A replacement sample was provided in case the schools selected were not accessible or closed. Three criteria were used to choose the replacement school. The first criterion is the type of establishment; a mother school will be replaced by a mother and an autonomous primary school will be replaced by an autonomous primary school. The second criterion is geographical proximity (the replacement school must be in the same town as the school to be replaced), and the third is proximity in terms of weight. Finally, we selected a school of the same type in the municipality with the number of the nearest school from where the main sample was drawn. One school was replaced as it was closed on survey day.

Calculation of sampling weights. Schools are drawn according to their weight (number of students in first to third year). The more students a school has, the more likely it is to be part of the sample. The inclusion probability of a school within each stratum is given by the following formula:

$$P1 = \text{Number of schools from each stratum} * (\text{Number of students in the school} / \text{Number of students in the stratum}).$$

Satellite schools were not randomly drawn, but selected according to a proximity criterion; the probability of selecting a satellite school is equal to that of its core/mother school.

The inclusion probability of a teacher in a school is:

$$P2 = \text{Number of teachers surveyed} / \text{Number of teachers Grades 1–3}.$$

Finally, the probability of selecting a teacher is $P1 * P2 =$

$$\text{Probability of selecting the school} * \text{Probability of selection of teachers in school}$$

Annex 3: Analysis of Teachers' Open-Ended Questions

Three open questions were collected from teachers (188) and teachers in training (24) in Arabic and translated into French, and then into English.

- Question 1: In your opinion, what are the most popular areas for in-service training in the field of reading in Arabic?
- Question 2: In general and according to you, apart from the in-service training, what should be done to improve the level of reading in Arabic?
- Question 3: In your opinion, how could you be helped to improve the level of reading among pupils?

The answers to questions 2 and 3 were analyzed together, because their meaning is close. The possible answers were categorized by topic (unit of meaning) proposed by experts and analyzed by the research assistant, statistician, and field researchers. *Table A-7* presents for each modality the percentage of teachers who responded to each theme, for each research component.

Table A-7: Categories and Distribution of Open-Ended Questions on How to Improve Reading

Topics / themes	Teachers (188)	Teachers in training (24)
New technologies ICT	51%	38%
Libraries	31%	58%
Free reading	28%	42%
Improve textbooks	28%	13%
Other teaching materials	22%	29%
preschool	20%	17%
In-service training	20%	17%
Organize parallel activities / organization of competitions	19%	38%
Improve the program	19%	33%
Communication with parents	16%	17%
Improve the number or time of reading sessions	16%	17%
Class size	9%	8%
Classroom reading corner	6%	8%
Improve the working conditions of teachers	4%	8%
Supervision of teachers	3%	4%
Having a psychologist or assistant	3%	8%
Repetition / school mapping	3%	4%
Auto training of the teacher	3%	8%
Reduce or eliminate the multigrade classes	2%	4%
Working in groups	2%	4%
Others	19%	21%

The needs differ somewhat between teachers and student teachers, who are more prompt to identify libraries (58 percent), free reading (42 percent), the organization of parallel activities and competition (38 percent), and improving program (33 percent) as ways to improve reading. These data summarize their needs, requirements, and suggestions to improve the level of reading in Arabic.

A. The key themes of responses (Questions 2 and 3)

In the extracts below, the focus was on educational inputs such as program, manuals, and in-service training. Indeed, the development of preschool, the provision of libraries, and reading areas are explicit terms that it is not necessary to detail.

1. New technologies—ICT (51.1 percent of teachers)

Approximately 51.1 percent of the teachers mentioned the need to use new technologies (ICT) and other educational materials to improve reading in Arabic among learners. This is the most frequently cited category. With regard to the ICT, most of their proposals can be summarized as follows:

- Provision of CDs containing texts summarized in words, sounds, and images as the learner is more attracted to the sound and image than by written words.
- Seek ways and visual tools to help students gain fluency in reading. Means of explanation: images and posters, electronic tools.
- The reading level in Arabic can be improved through renovation of educational materials through passive tools and animated and electronic interactive tools.
- Modern and practical teaching methods: interactive whiteboard, projector, PC, internet to improve the reading level.
- Develop new ways and provide modern technology
- To improve the reading level, technological tools available to schools should be developed.
- Provide tools like computers, multi-purpose screens; provide teaching tools such as interactive whiteboards and connect the school to the Internet.

2. Improving school manuals (short texts, simple content) (28.2 percent of teachers)

For the second most common response, approximately 28.2 percent of teachers mentioned the need to improve textbooks in order to increase the quality of reading in Arabic among students. For this, they made the following suggestions:

- Be more open about the texts (suspense, tales) and beautiful illustrations to stimulate the learning desire and knowledge. Short reading texts, adapted to the environment of the student.
- Focus on the first two grades for learning to read with reading materials accessible to the students.
- Reduce the number of textbooks by opting for one compatible with the learners and their family and social environment.

- Provide texts that meet students’ desires or reading material that the students could read with envy and suspense.
- To improve the standard of reading in Arabic, it would be desirable to simplify the content, especially in the first and second year and even increase the number of sessions devoted to reading.
- To improve standards in Arabic, supervisors should involve teachers in the selection of textbooks adapted to the environment of the learner.
- Reduce the number of scheduled weekly texts; make reading texts flexible by adapting them to the age of the student so that he can understand or appropriate the content. Link text and structures as well as the letters; shorten the text relatively to allow many students to read.
- To develop reading among learners, we must start with simple and short texts, we must consider the number of students in class; the surplus has a negative effect on learning.
- Revise certain texts (quality) of reading and replace texts with content inspired by reality and concerns of learners.

3. Continuing education (20.2 percent of teachers)

Approximately 20.2 percent of teachers said they need further training to improve the quality of reading:

- It is the daily practice of this subject that encourages teachers to discover and stop on any details either in quantity or quality as in-service training allows the exchange of ideas and methods, but the practice remains dependent on teacher’s method of work and attendance.
- Hold educational meetings between trainers and teachers or exchange expertise, support activities.
- Focus on in-service training is a pressing need in terms of provision of basic skills for teaching.
- Provide ongoing training of the teachers to inform them of new teaching methodologies in reading and to meet the requirements of the job training (meet the news).
- In-service training in the field of modern methods yielding a radical change in learning: interactive whiteboard, library in classes, images, educational films.

4. Improve the program (18.6 percent of teachers)

Approximately 18.6 percent of the teachers mentioned the need to improve the program to increase the quality of Arabic reading among students:

- Tailor programs to the needs of children from rural areas. Reflect the gradual evolution in reading, particularly at the top level because the students did not receive preschool education.
- The assistance we need to improve the level of reading among students is an adaptation of curricula to the environment of students, and it would be desirable that the choice of texts rests with the teacher who could judge the compatibility of these texts with the minds of his students. In addition simplifying and taking into account the particularities of any region, and the conditions that can contribute to improving the reading level.
- Adopt easy and simple programs. Take into account the conditions of schooling in rural areas.
- Promote programs and courses available to students at all levels, and also require an annual review program to be adapted to the needs of learners, their social and intellectual level.

B. Some teachers' perceptions about the national languages

Only three teachers spontaneously addressed the issue of mother tongues in education: a very unfavorable statement, a rather favorable statement, and a hybrid approach:

- I refuse the use of colloquial Arabic as a means of explanation. We should use modern means (audiovisual), and the student will derive the meaning conveyed by the context in classical Arabic, as the use of colloquial Arabic leads to language interference.
- To improve the standard of reading in Arabic, a language between classical and colloquial can be invented.
- Use language kindergarten-topics and areas that should be part of the experience of the student (attractive).

A teacher recommended: "Practical training in learning to read especially in areas where people do not speak Arabic dialect."

C. Level of difficulty of Arabic language:

A further analysis of open questions also identified a number of issues related to the difficulty of the Arabic language.

First, teachers have stressed the issue of the length and complexity of the texts that keep the teacher from giving the majority of students in the class an opportunity to read during the reading session. In addition, many of the school textbooks are not adapted to the environment of the students, and also programs and reading materials do not accompany the level of students and their capacity.

In addition, teachers report issues with the complexity of the teaching methodology used in the classroom, because they start from the global method and move to the partial method. At

the same time teachers complain of non-support of a large percentage of students at home by parents and also of overcrowded classes.

Finally, teachers reported the unavailability of adequate teaching resources and the insufficient number of sessions devoted to reading in general, on the one hand, and devoted to oral skills development on the other hand.

D. Continuing professional development: Areas requested (Question 1)

The following *Table A-8* presents the desired areas in the context of continuing education (Question 1).

Table A8: Areas of In-Service Training Identified as a Need by Teachers Based on Open Questions

Areas of in-service training	Teachers (188)	Teachers in training (24)
Approaches and methods of teaching reading	34%	29%
ICT and new techniques for reading	32%	29%
Activities and incentive events of reading	29%	29%
Child psychology and management of reading difficulties among students	27%	21%
Language: letters articulation, phonemes, pronunciation	24%	46%
Arabic language and its teaching methods	23%	21%
Observation of lessons and the practice of reading instruction (learning by doing)	12%	17%
Others	17%	33%

The answers are relatively homogeneous among teachers and teachers in training, with the exception of the issue of articulation of letters, phonemes, and pronunciation cited by 46 percent of teachers in training and 24 percent of teachers. As before, the topic of new technologies often returns.

Here is an excerpt from the teachers’ responses with regard to the training:

From my perspective, it would, in this context, focus on the access method and overcome obstacles when working in common class, especially in reading, to take into account the time spent and sessions. Streamline concepts for students including the textbook by making them compatible with their daily lives.

- The most important part of continuing education and related reading for Arabic domains are: Studies of phonemes, the ways and means for adapting the visual phonemes.
- The psychological, pedagogical, and didactic areas are considered the most important for us to understand the student and determine his or her capabilities, as well as choosing the right education that will allow the student to overcome weaknesses in reading.
- The most important areas for the in-service training may be limited to: communication domain, including methods of reading, areas related to the articulation of letters, specialized study of the social situation of pupils, field-specific needs.
- Training in behavior with children with reading difficulties. Training in speech therapy.
- Learn how to pronounce the letters and consider joint-words letter-punctuation and the position of the word and figures of speech
- Training in teaching reading technology, use technology as a fun and constructive; management training and resolution of reading difficulties.
- The most important area for continuing education related to reading in Arabic concerns pronunciation of letters.
- Training phonemes, becoming aware of dyslexia and its treatment through speech therapy, primary training in language-teaching methodologies.

Annex 4: Self-Administered Questionnaire (“26 pairs of statements”)

	Statement A العبارة أ	Statement B العبارة ب	اختيار المستجوب: Choice (A ou B) أ أو ب
1	Children learn best if they participate actively in the lesson. Les élèves apprennent mieux s'ils participent activement à la leçon. التلاميذ يتعلمون بشكل أفضل عندما يشاركون بنشاط في الدرس.	Children learn best if they listen to the lesson attentively. Les élèves apprennent mieux s'ils écoutent la leçon très attentivement. التلاميذ يتعلمون بشكل أفضل عندما يستمعون إلى الدرس بعناية.	
2	Children learn to read in MSA more rapidly when the teacher uses only MSA in the classroom. Les élèves apprennent à lire en arabe standard plus rapidement lorsque l'enseignant n'utilise que cette langue en classe. يتعلم التلاميذ القراءة باللغة العربية الفصحى بشكل أسرع عندما لا يستخدم الأستاذ إلا تلك اللغة داخل القسم.	Children learn MSA more rapidly when they are taught using the mother tongue. Les élèves apprennent à lire en arabe standard plus rapidement lorsqu'on enseigne à travers la langue maternelle. يتعلم التلاميذ القراءة باللغة العربية الفصحى بشكل أسرع عندما يتم تعليمهم عن طريق لغتهم الأم.	
3	Learning to read in the mother tongue helps children in the mastery of MSA. Apprendre à lire dans la langue maternelle aide les élèves dans la maîtrise de l'arabe standard. التلاميذ الذين يدرسههم أستاذ يستخدم اللغة الأم، لمساعدتهم على الفهم، يتمتعون بميزة في تعلم اللغة العربية الفصحى.	It is not useful to teach reading in the the mother tongue because there are very few things to read in that language. Il n'est pas utile d'enseigner la lecture en langue maternelle, car actuellement, il n'y a pas beaucoup à lire en langue maternelle. ليس من المفيد تعليم القراءة باللغة الأم، لأنه حاليا ليس هناك الكثير لقراءته باللغة الأم.	
4	Learning to read depends mainly on the child's intelligence. L'apprentissage de la lecture dépend surtout de l'intelligence de l'enfant. تعلم القراءة يعتمد أساسا على ذكاء الطفل.	Learning to read depends mainly on the method used. L'apprentissage de la lecture dépend surtout des méthodes utilisées. تعلم القراءة يعتمد أساسا على الطرق المستخدمة.	
5	When children ask too many questions it slows down the lesson. Trop de questions de la part des élèves risquent de ralentir la leçon. كثرة الأسئلة من طرف التلاميذ قد تبطي الدرس.	When children ask a lot of question it is a good sign that the lesson is a success. Si les élèves posent beaucoup de questions, c'est un bon signe que la leçon a réussi. إذا كان التلاميذ يطرحون العديد من الأسئلة، هذه علامة جيدة تدل على أن الدرس كان ناجحا.	
6	Children should read books that correspond to their ability level.	Children should read books that correspond to their grade level.	

	Statement A العبارة أ	Statement B العبارة ب	اختيار المستجوب: Choice (A ou B) أ أو ب
	L'enfant doit lire des livres qui correspondent à son niveau de capacité جب على الطفل أن يقرأ الكتب التي تتناسب مع مستوى قدرته .	L'enfant doit lire des livres qui correspondent à son niveau scolaire. يجب على الطفل أن يقرأ الكتب التي تتناسب مع مستواه المدرسي.	
7	To learn to read, it is important to learn letter sounds and combine them to make words. Pour apprendre à lire, il est important d'apprendre les sons et de les combiner pour former des mots. لتعلم القراءة، من المهم تعلم الأصوات والجمع بينهما لتشكيل الكلمات.	To learn to read, it is important to memorize words by their form. Pour apprendre à lire, il est important d'apprendre par cœur la forme de plusieurs mots. لتعلم القراءة، من المهم تعلم الأصوات والجمع بينهما لتشكيل الكلمات	
8	It is not hard to develop teaching material in the mother tongue. Développer du matériel pédagogique en langue maternelle n'est pas difficile à faire. القيام بتطوير الأداة البيداغوجية باللغة الأم ليس صعبا.	It is hard to create teaching material in the mother tongue. Il est difficile de créer du matériel d'enseignement et d'apprentissage en langue maternelle. من الصعب خلق أداة تعليمية والتعلم باللغة الأم.	
9	The best students deserve more attention on the part of the teacher, because they are more likely to succeed. Les meilleurs élèves méritent plus d'attention de la part de l'enseignant, car ils sont plus aptes à réussir. التلاميذ المتفوقون هم الأجدر بالمزيد من الاهتمام من طرف الأستاذ، لأنهم الأكثر قدرة على النجاح.	Students who are falling behind deserve more attention on the part of the teacher, so that they can catch up. Les élèves en difficulté méritent plus d'attention de la part de l'enseignant, pour qu'ils rattrapent le niveau. التلاميذ الذين يواجهون صعوبات هم الأجدر بالمزيد من الاهتمام من طرف الأستاذ، لكي يتحسن مستواهم	
10	Good teaching can overcome childrens' difficulty in reading. Des insuffisances en lecture chez l'élève peuvent être surmontées par un bon enseignement. النقائص في القراءة لدى التلميذ يمكن التغلب عليها عن طريق تعليم جيد.	Even with good reading instruction some children can not learn to read. Même les enseignants ayant de bonnes méthodes d'enseignement de la lecture n'arrivent pas à aider certains enfants à apprendre à lire. حتى الأساتذة الذين يتوفرون على طرق جيدة لتعليم القراءة لا يستطيعون مساعدة بعض الأطفال على تعلم القراءة.	
11	It is important to evaluate the progress of the children to determine what type of support they need. Il est important d'évaluer le niveau de lecture de l'élève pour déterminer le type d'appui à lui fournir. من المهم تقييم مستوى القراءة عند التلميذ لتحديد نوع الدعم الذي سيقدم له.	It is important to evaluate the progress of the children in order to give them a grade. Il est important d'évaluer le niveau de la lecture de l'élève pour déterminer la note à lui donner. من المهم تقييم مستوى القراءة عند التلميذ لتحديد النقطة التي سيحصل عليها.	
12	Children should learn to read in the before beginning to learn to write.	Children can learn to read and write at the same time.	

	Statement A العبارة أ	Statement B العبارة ب	اختيار المستجوب: Choice (A ou B) أ أو ب
	Les enfants doivent apprendre à lire en premier avant de commencer l'écriture. يجب على الأطفال تعلم القراءة أولاً قبل أن يبدأوا الكتابة.	Les enfants peuvent apprendre à lire et à écrire en même temps. يمكن للأطفال تعلم القراءة والكتابة في نفس الوقت.	
13	Children should read only at school, under the supervision of the teacher. Il est préférable que les enfants lisent uniquement à l'école, sous la supervision de l'enseignant. من الأحسن أن يقرأ الأطفال فقط في المدرسة تحت إشراف الأستاذ.	Children should be encouraged to read outside of school. Les enfants doivent être encouragés à lire en dehors de l'école. ينبغي تشجيع الأطفال على القراءة حتى خارج المدرسة.	
14	Moroccan children should learn to read in MSA first, regardless of their mother tongue. L'enfant marocain doit apprendre à lire en arabe classique en premier lieu, quelle que soit sa langue maternelle. الطفل المغربي يجب أن يتعلم القراءة باللغة العربية الفصحى في المقام الأول، بغض النظر عن لغته الأم.	Moroccan children should learn to read in their native language first. Tous les enfants doivent apprendre à lire dans leur langue maternelle en premier lieu. يتعين على جميع الأطفال تعلم القراءة بلغتهم الأم بالدرجة الأولى.	
15	It is hard to help children transfer knowledge about reading from their mother tongue to learning to read in MSA. Aider les élèves à transférer leurs compétences en lecture en langue maternelle vers l'apprentissage de la lecture en langue arabe standard est difficile à faire. القيام بمساعدة التلاميذ على نقل مهاراتهم في القراءة باللغة الأم إلى تعلم القراءة باللغة العربية الفصحى صعب.	Using methods of teaching a foreign language helps Moroccan children learn MSA. Utiliser des méthodes d'enseignement en deuxième langue aide à enseigner l'arabe standard aux élèves marocains. استعمال طرق أخرى في تعليم التلاميذ و ذلك باستخدام لغة ثانية يساعد على تعليمهم باللغة العربية الفصحى.	
16	For some children it is not important to know how to read. Pour certains enfants, il n'est pas important d'apprendre à lire. بالنسبة لبعض الأطفال، فإنه ليس من المهم أن يتعلم القراءة.	It is important for all children to learn how to read. Il est important que tout enfant apprenne à lire. من المهم أن يتعلم كل طفل القراءة.	
17	I feel more comfortable when I teach in the mother tongue. Je me sens plus à l'aise lorsque j'enseigne en langue maternelle en classe. أشعر براحة أكبر عندما أقوم بالتدريس باللغة الأم في القسم.	I feel more comfortable when I use MSA in the class. Je me sens plus à l'aise lorsque j'enseigne en arabe standard en classe. أشعر براحة أكبر عندما أقوم بالتدريس بالعربية الفصحى في القسم.	
18	A teacher with appropriate methods and materials can easily teach reading in the mother tongue. Un enseignant équipé des méthodes et matériels appropriés, peut	Teaching reading in the mother tongue would be too difficult for teachers. Apprendre aux enfants à lire en langue maternelle serait trop	

	Statement A العبارة أ	Statement B العبارة ب	اختيار المستجوب: Choice (A ou B) أ أو ب
	facilement enseigner la lecture en langue maternelle. الأستاذ الذي يتوفر على الطرق و الأدوات المناسبة يمكنه تعليم القراءة باللغة الأم بكل سهولة.	difficile pour les enseignants. تعليم القراءة للأطفال بلغتهم الأم يكون صعبا جدا على الأساتذة.	
19	All children are capable of learning to read. Tout enfant a la capacité d'apprendre à lire. كل طفل لديه القدرة على تعلم القراءة.	Some children are not able to learn how to read. Certains enfants n'ont pas la capacité d'apprendre à lire. بعض الأطفال ليس لديهم القدرة على تعلم القراءة	
20	In third grade, the diacritic signs (tashkeel) are important for helping children understand what is read. En 3e année, les signes diacritiques (tashkeel) sont surtout importants pour aider les élèves à lire avec Compréhension . في السنة الثالثة، التشكيل (تشكيل النصوص) له أهمية في مساعدة التلاميذ على القراءة و الفهم.	In grade 3, the diacritic signs (tashkeel) are important for helping children pronounce the words correctly. En 3e année, les signes diacritiques (tashkeel) sont surtout importants pour aider les élèves à lire avec une Prononciation correcte. النطق /في السنة الثالثة، التشكيل (تشكيل النصوص) له أهمية في مساعدة التلاميذ على الصحيح.	
21	It is important to complete the prescribed curriculum on time, even if some children fall behind. Il est important de compléter le programme à temps, même si certains élèves n'ont pas tout acquis. استكمال البرنامج في الوقت المحدد هو الأهم.	It is important to help all children do their best, even if that means falling behind in the curriculum. Il est important d'aider les élèves à faire de leur mieux, même si ça cause un retard dans le programme. الأهم هو مساعدة التلاميذ على بذل قصارى جهدهم.	
22	Children should be encouraged to read books themselves starting in second grade. Les enfants doivent être encouragés à lire des livres eux-mêmes à partir de la 2e année. ينبغي تشجيع الأطفال على قراءة الكتب بأنفسهم ابتداء من السنة الثانية.	Children should be encouraged to read books themselves starting in the first grade. Les enfants doivent être encouragés à lire des livres eux-mêmes dès la 1ere année. ينبغي تشجيع الأطفال على قراءة الكتب بأنفسهم ابتداء من السنة الأولى.	
23	Knowing the roots of words and the morphological structures of the Arabic language can help even beginning readers to develop vocabulary. Connaître les racines des mots et les structures morphologiques de la langue arabe peut aider même les jeunes lecteurs à développer le vocabulaire. التعرف على جذور الكلمات والتراكيب المورفولوجية للغة العربية يمكنه أن يساعد القراء	The morphology of the Arabic language is complicated for children in the early years of primary school. La morphologie de la langue arabe est compliquée pour les élèves des premières années de l'école primaire. مورفولوجية اللغة العربية معقد بالنسبة للتلاميذ في السنوات الأولى من المرحلة الابتدائية.	

	Statement A العبارة أ	Statement B العبارة ب	اختيار المستجوب: Choice (A ou B) أ أو ب
	الصغار على تطوير المفردات.		
24	Pronouncing words correctly means that the child has understood what was read. Prononcer les mots correctement, indique que l'enfant comprend le texte qu'il lit. نطق الكلمات بشكل صحيح يدل على أن الطفل يفهم النص الذي يقرءه	Reading with appropriate expression means that the child has understood what was read. Lire avec une expression appropriée, indique que l'enfant comprend le texte qu'il lit. القراءة مع التعبير المناسب، يدل على أن الطفل يفهم النص الذي يقرءه	
25	The role of the teacher is to facilitate learning for the children. Le rôle de l'enseignant est de faciliter l'apprentissage chez les élèves. دور الأستاذ هو تسهيل التعلم للتلاميذ	The role of the teacher is to transfer knowledge to the children. Le rôle de l'enseignant est de transmettre des connaissances aux élèves. دور الأستاذ هو نقل المعارف إلى التلاميذ.	
26	It is not appropriate to use the mother tongue as the language of instruction. Il n'est pas approprié d'utiliser la langue maternelle comme langue d'enseignement. ليس من المناسب استخدام اللغة الأم كلغة للتعليم.	The child can not learn when the language of instruction is one that he/she does not understand. L'enfant ne peut pas apprendre lorsque l'enseignement est fait dans une langue qu'il ne comprend pas. لا يمكن للطفل أن يتعلم عندما يتم التعليم بلغة لا يفهمها.	