



EdData II

Task Order 15: Data for Education Programming in Asia and Middle East Topical Analysis of Early Grade Reading Instruction

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Table of Contents

List of Tables	v
Abbreviations	vi
Executive Summary	viii
I. Introduction	1
A. Research Questions	4
B. Methods	5
II. How Well Are Pupils Learning to Read in the Early Grades? Results from International Reading Assessments	6
A. Progress in International Reading Literacy Study (PIRLS)	6
B. Early Grade Reading Assessment (EGRA)	9
C. Literacy Boost Yemen Baseline Report	16
III. Scholarly Literature	19
A. Diglossia and Vocalization: Two Distinguishing Features of the Language and How They Impact Reading Acquisition	21
B. Skills and Knowledge Necessary to Read in Arabic	32
IV. International Development Research on School Environment, Instruction, and Parental Involvement	41
A. Reading as a Subject in the Curriculum	42
B. International Development Research on Reading Instruction in the Arab World	45
C. Other Assessments	48
D. Books and Resources	54
E. Other Significant Factors	55
Interviewee Questions	59
Egypt	59
Iraq	59
Jordan	59
Morocco	59
Yemen	59
V. Conclusions and Recommendations	60
A. Conclusions	60
B. Recommendations	62
Work Cited	64
Annexes	70
Annex A: Bibliography	71
Annex B: Scope of Work for In-Country Researchers	80

Annex C: Interview Protocol and Directions.....	82
Annex D: Researchers and Interviewees (by role)	92
Annex E: Interview Summary and Analysis.....	97
Interviewee Questions.....	99
Egypt	99
Iraq	99
Jordan.....	99
Morocco	99
Yemen	99

List of Tables

Table ES1. Composite EGRA scores, by country and grade.....	xi
Table 1: Countries listing Arabic as their official language	1
Table 2: Main research questions	4
Table 3: Technical research questions	5
Table 4: Composite scores across countries and grades	11
Table 5: Grade 2 EGRA scores by country	13
Table 6: Grade 3 EGRA scores by country	14
Table 7: Words per minute scores by country	15
Table 8: Correspondence of comprehension and ORF rates across countries, third grade students	16
Table 9: Arabic consonants and long vowels	26
Table 10: The letter <i>sīn</i>	27
Table 11: Arabic homographs.....	28
Table 12: Instructional content, Morocco	49
Table 13: Instructional content, Jordan.....	50
Table 14: Instructional content, Iraq.....	51
Table 15: Key Research Questions by Country	59
Table 16: Key Research Questions by Country (Annex).....	99

Abbreviations

CEO	Chief Executive Officer
CLP	Community Livelihoods Project
clspm	correct letter sounds per minute
COTR	Contracting Officer's Technical Representative
cwpm	correct words per minute
DOE	Department of Education
EdData	Education Data for Decision Making
ERP	Education Reform Program
ERIC	Education Resources Information Center
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EGRP	Early Grade Reading Program
ERIC	Educational Resources Information Center
GILO	Girls' Improved Learning Outcomes
GIZ	German Agency for International Cooperation
IEA	International Association for the Evaluation of Educational Achievement
IES	Institute of Education Studies
K	kindergarten
KPI	key performance indicator
LA	literary Arabic
MENA	Middle East North Africa
MOE	Ministry of Education
MSA	Modern Standard Arabic
NGO	nongovernmental organization
ORF	oral reading fluency
PIRLS	Progress in International Reading Literacy Study
QRTA	Queen Rania Teachers Academy
RAN	rapid naming
RD	reading disabled
RTI	RTI International (trade name of Research Triangle Institute)

SAV	spoken Arabic vernacular
SDL	Saudi Digital Library
SSME	Snapshot of School Management Effectiveness Survey
SC	Save the Children
TIMMS	Trends in International Mathematics and Science Study
TOT	training of trainers
UAE	United Arab Emirates
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USAID	United States Agency for International Development
USG	United States Government
WPM	words per minute
YEGRA	Yemen Early Grade Reading Activity

Executive Summary

Purpose of the Study

The goal of this study is to better inform government ministries of education, the United States Agency for International Development (USAID) and other donors, and the international development community about effective, evidence-based programming for reading and writing improvement initiatives in Arab countries. Specifically, the objectives of this study were:

- To review current evidence-based scholarly research on teaching and learning Arabic in an effort to identify what content and practices are most effective in helping pupils¹ read with comprehension and express themselves in writing; and
- To review current, evidence-based ministry/donor/nongovernmental organization (NGO) research on effectively teaching and learning to read and write in Arabic.²

This study documents the current state of teaching and learning reading in Egypt, Iraq, Jordan, Morocco, and Yemen; and identifies practices and approaches that can be deemed most effective based on existing evidence from scholarly, donor, NGO, and project-based research. While this study looks specifically at Egypt, Iraq, Jordan, Morocco, and Yemen, it draws on literature and examples of best practices throughout the Arab world, including Kuwait, Lebanon, Oman, the Palestinian territories, and Saudi Arabia.

Methods

This study proceeds primarily through a systematic review and synthesis of research and literature in English and Arabic. The study examines peer-reviewed scholarly research and donor-funded project-based research findings related to pupil reading performance and reading instruction from the past 20 years. Only works that showed rigorous methodology and clear and compelling evidence for assertions made were reviewed. An underlying assumption in the examination of this literature was that research on teaching Arabic literacy in one context has relevance to other contexts. Hence, we have examined literature that discusses the teaching and learning of reading and writing skills in Arabic in any country across the Middle East and North Africa, not limiting ourselves to the five focus countries. Indeed, much of the scholarly research in this study came from outside of the five focal countries, such as from Palestine, Saudi Arabia, and others.

¹ We use *pupil* and *student* synonymously in this paper. However, we have used *pupil* more frequently as it more strongly implies a child rather than a youth or adult. For example, <http://www.merriam-webster.com/dictionary/pupil> defines a pupil as: “a child or young person in school or in the charge of a tutor or instructor” and a student as: “a person who attends a school, college, or university.”

² The introduction to the study, Section I, details the specific research questions posed.

The study also involved a series of face-to-face interviews with stakeholders, which were conducted by a researcher in each country—Egypt, Iraq, Jordan, Morocco, and Yemen. The interviewed stakeholders were from the education sector and were formally focused on the teaching and learning of early grade reading in public schools. Questions probed their observations and experience in the field of Arabic reading instruction relative to the state of the field presently, best practices, and promising initiatives and recommendations.

Findings

The report findings are organized into three sections (sections II, III, and IV in this report) to reflect the bodies of work examined in this study:

- International pupil assessments;
- Scholarly research; and
- International development research on schools, instruction, and communities.

Section V presents recommendations and conclusions.

International Pupil Reading Assessments

We examined the results of three assessments administered in the past 10 years that examined reading levels of Arabic-speaking children in elementary school. These were: the Progress in International Reading Literacy Study (PIRLS), the Early Grade Reading Assessment (EGRA) and the Literacy Boost Yemen Baseline.

PIRLS: In general, pupils in Arabic-speaking countries had low performance by average scores in the three PIRLS assessments. The scale center-point of 500 was set to correspond to the mean of the overall reading achievement distribution in PIRLS. In PIRLS 2011, the Arabic-speaking countries were below the average at the bottom of the list with scores ranging from 439 to 310 for fourth-graders (Mullis, Martin, Foy, & Drucker 2012).

Specifically, the scores for the Arabic-speaking countries (and for several other countries in the same range, for comparison's sake) were as follows.

Out of the 45 countries participating in the fourth-grade test:

- Colombia 448 (immediately above United Arab Emirates [UAE])
- UAE 439
- Saudi Arabia 430 (immediately behind UAE)
- Indonesia 428
- Qatar 425
- Oman 391
- Morocco 310 (lowest score of all 45 countries)

EGRA: The EGRA tool is designed to assess how well pupils perform on component skills of reading such as letter naming, letter sound identification, decoding skills, oral reading fluency and accuracy, listening comprehension, and reading comprehension. Because it tests skills necessary for reading achievement, it can be used to inform the development of reading standards, curricula, and teacher training programs. A summary of the EGRA results across Arabic-speaking countries is presented in ***Table ES1***. (Note that Yemen administered 9 EGRA subtasks and the other countries administered 5.)

Table ES1. Composite EGRA scores, by country and grade

	Subtask*	Egypt**		Iraq		Jordan		Morocco***		Yemen	
		P2	P3	P2	P3	P2	P3	P2	P3	P2	P3
1	Letter name knowledge (100 letters presented; pupils had 1 minute of time to name the letters)									16.78	21.52
2	Initial sound identification (10 items)									1.04	1.35
3	Letter sound knowledge (100 letters presented; pupils had 1 minute of time to make letter sound)	9.76	18.8	13.6	13.5	26.5	26.3	23	33	4.74	6.22
		28.47									
4	Familiar word reading (50 familiar words presented to be named in 1 minute)	7.35								6.74	12.32
		15.5									
5	Nonword decoding (out of 50 pronounceable made-up words/1 minute of time)		5.9	3.7	4.7	4.4	7	10	15	2.63	4.5
6	Oral reading fluency (50-word story to read aloud/1 minute of time)	11.09	21.9	11.4	21.2	15.2	23.7	16	27	5.85	11.98
		21.14									
7	Reading comprehension (6 questions about the story—basic facts)		1.9	0.9	1.6	2	2.9	0.74	1.49	0.24	0.59
8	Listening comprehension (passage read to pupils; 6 questions about passage)		3.2	2.9	3.4	2.2	2.9	2.34	3.37	0.85	1.51
9	Dictation (3 words made up of 15 letters; top score is # of words written correctly, bottom score is # of letters taken down correctly)									0.62	0.91
										7.28	10.22

*The highlighted rows in this column indicate tests that were given only in Yemen; hence there are no comparable scores from the other countries.

**Egypt is the only country that had pre- and post-test data to report; the number on top is the baseline and the number below is the post-test score.

*** The EGRA in Morocco was carried out in one region only so it is not nationally representative.

Note: The results presented in this table are solely intended to indicate broad differences and similarities among the countries assessed. The EGRA instruments adapted for each country were not designed to be directly comparable because neither equated nor were identical passages and words used.

The results were low for all of the subtasks. On the positive side, the EGRA results did show that for the most part, pupils were moving in the right direction from one grade to the next. While these results are discussed in more detail in the report, what is clear from the EGRA results is that these pupils were not doing well on the basic and foundational skills required to become readers: knowing letter sounds, reading familiar words, sounding out unfamiliar (nonwords), reading a passage fluently, understanding what one reads, and understanding what one hears read aloud.

Literacy Boost: Yemen pupils were tested on six skill components of reading: (1) concepts of print, (2) alphabetic knowledge, (3) common word reading, (4) oral reading fluency, (5) oral reading accuracy, and (6) comprehension (listening and reading). Passages and words incorporated into the test were selected in reference to the Yemeni early grade Arabic curriculum. Results tended to mirror the EGRA results, with a few exceptions. While reading fluency rates were low, reading accuracy rates on average were more encouraging, with first graders reading about half the passage accurately, second graders reading over 50% accurately, and third graders reading over 70% accurately. Reading comprehension scores were surprisingly better than listening comprehension, and better than expected given the struggles pupils had with reading the passage aloud fluently. Third graders got between 70% and 90% of the responses correct on average. Yemen uses a whole-language approach, in that pupils are taught to memorize words by shape in first grade. They are not taught letter sounds or introduced to vowel markings until later in the year. Thus, they are not taught to sound words out. Some research indicates that memorizing words by shape is difficult in a language with many homographs and many words that look very similar, even if they are not identical (Gavin, 2011).

In sum, the results found across these three assessments speak to the need to focus on explicit instruction of the component skills of reading.

a. Review of Literature

Several central themes emerge from the literature review and the interviews:

- The role of diglossia in the teaching and learning of literacy skills in Arabic, including the positive impact of early exposure to Modern Standard Arabic (MSA) in facilitating vocabulary development and listening comprehension (oral language development)
- Vocalization (i.e., using short vowel diacritics called tashkeel or harakat in Arabic), otherwise called “vowelings” in English, as an important support for emergent readers and an aid to struggling readers as it renders Arabic orthography transparent and facilitates initial reading fluency
- The centrality of phonological awareness in reading early grade texts, and the value of explicit teaching of letter names and corresponding sounds (phonics)
- Knowledge of Arabic morphology and its positive impact on decoding, vocabulary, and reading fluency with unvoweled text
- The critical supporting role of context clues for decoding words in unvocalized texts

Likewise, project-based literature, including the EGRA analysis reports, tended to focus on the need to teach phonics, phonological awareness, and vocalization. Project-based literature tended to offer more data on actual teaching methodologies used in classrooms and in so doing discussed the importance of facilitating phonological awareness, the explicit teaching of phonics (letter names and corresponding letter sounds), the impact of providing explicit feedback to pupils, pupil attendance, and the presence of reading materials as being key factors in improving reading levels. These studies also acknowledged the complexity of teaching and learning Arabic literacy in a diglossic environment.

b.1 Scholarly Research

Many prominent Arab researchers (and others) have been examining issues related to reading over the past 20 years (and longer), and their findings are highly relevant to addressing issues of teaching and learning to read and write in Arabic. We look at two singular features of Arabic that impact the process of learning to read—diglossia and vocalization—and then examine what the research says in terms of key linguistic, instructional and environmental variables that impact pupils’ reading success.

Diglossia: Diglossic languages have a “high” and a “low” form that can differ substantially. The “low” form or dialect is used for oral communication and the “high” form generally for written communication. Diglossia presents challenges for both pupils and teachers, as it means that in school, children must learn a very different form of Arabic from that which is spoken in their daily lives. Research in the past 20 years has focused on identifying linguistic and instructional factors that help to mitigate the effects of diglossia. One factor that emerges across the literature (and across the project-based literature as well) is that early exposure to MSA (i.e., in the home or in preschool or kindergarten) has a positive impact on pupils’ progress in learning to read in the early grades. Early exposure allows children to become familiar with the different vocabulary, sounds or pronunciation, and syntax that are found in MSA. Story reading and shared writing of letters and words, as well as alphabet games, were factors found to be effective in easing the transition from local dialect to MSA.

Vocalization (the use of short vowel diacritics or *tashkeel*). MSA is written without short vowel markings. The diacritics are included in text for early grade pupils to help them to read, but ultimately they are removed and children must learn to read unvocalized or unvoweled text. In the early grades, vocalization or short vowel markings are important to render the Arabic orthography transparent. With the vowel markings, the orthography is predictable (unlike English or French, for example), as there are no silent letters or homonyms to confuse readers. Words are pronounced as they are written. The research documents the fact that short vowel markings are critical to beginning readers and an aid to struggling readers. The research also shows that vocalization does not necessarily increase reading speed or fluency in skilled readers, indicating that as beginning readers gain skill, they are able to rely on other factors (other than short vowels) to decode text.

Key variables in the reading process in Arabic: The next subsections of this report examine in more depth what the research says relative to the factors that help pupils become effective readers of unvoweled text. One of the most significant contributory factors to fluent reading in Arabic is phonological awareness and alphabetic knowledge (sound–letter correspondence—i.e.,

phonics). Field research documents that in the early grades in some countries, methods such as “whole word recognition” or the spelling methods (*tariqa al hijaiyah*) are often employed. Neither one fully focuses on making sure pupils know the individual, independent sound each letter makes, even without short vowels. Research demonstrates quite definitively that children who are able to identify the individual sounds in the language (MSA) and then recognize the symbols that represent those sounds are able to read at a higher level than children who rely or try to rely from the beginning on the memorization of word shapes or word syllables (consonant and short vowel memorization as a unit). The implications for teaching are enormous in that a much greater focus should be placed on ensuring that pupils know and can distinguish the phonemes in MSA, and know the letters that represent those phonemes both in name and sound. Knowing letter names alone or syllables with short vowel markings will not enable pupils to sound out words as they are written; sounding out words is a key element of cracking the code and a critical step on the road to reading fluently and with comprehension in Arabic.

The other factors that are critical to developing reading skills in Arabic include recognizing clues from word morphology and using sentence context. Due to the nature of Arabic, words are constructed around three and four consonant groupings that form word roots. Many words in a family are derived from one root through the use of suffixes, infixes, and prefixes. In addition, some of these suffixes, infixes, and prefixes also give clues to the words’ role in the sentence.

Morphological knowledge can help to mitigate the absence of short vowel markers that pupils encounter in later elementary school. Research findings suggest that the transition from vocalized to unvocalized text is a critical step for readers of Arabic to make in their progression, and this too has significant implications for instruction. The transition from voweled to unvoweled text (usually made in fourth or fifth grade) must be managed and facilitated, especially for struggling readers. Using morphological knowledge can help readers identify words and determine word function in a sentence. Factors related to word morphology should be explicitly taught, something the research suggests is not done systematically or frequently enough.

Finally, as in many languages, but especially in unvoweled Arabic, sentence context is a critical factor in distinguishing between the many homographs in Arabic. Contextual variables—and to a certain extent, syntactical variables—provide essential clues that skilled readers are able to use in identifying unvoweled words correctly. Again, the implications for instruction are important; teachers need to model the thought process used to determine word meaning in reading unvocalized text for pupils, especially struggling readers, so that they will be able to avail themselves of the clues that sentence contexts offer.

b.2. International Development Research on Schools, Instruction, and Communities

While Arabic-speaking countries have made great strides in improving access and are addressing issues of educational quality, evidence suggests that greater attention must be paid to how reading and writing are taught. We looked at data on classroom teaching and school resources from various countries to better understand how reading is taught currently and how it might be improved in light of what we have learned from the scholarly literature.

Reading as a subject in the curriculum: The project-based literature and other information we have examined indicate that in most countries in the region, reading is not a separate subject, but is taught through the Arabic language classes in the early grades. Within the allotted hours for Arabic, which vary by country, there are subtopics under the heading “Arabic” which also vary by country. Some examples of these subtopics are: language, language preparedness, literature, word analysis, vocabulary, writing, calligraphy, understanding, grammar, orthography, rhetoric etc. Hence, instruction in reading falls across many areas of the Arabic curriculum, even in the early grades.

Reading instruction in the Arab world: In looking across countries, there seem to be two common pedagogical methods used in the early grades: whole-word recognition first, or “the spelling way,” called *tariqa hijaiyah*. Letter sounds (*tariqa sawtiya* or phonics) are not taught explicitly enough; letter names and syllables are more frequently taught, but individual letter sounds are sometimes missed. In terms of the order of letters to be taught, the general practice seems to suggest that it is preferable to teach letters in order of difficulty and frequency in the language, particularly in words children are familiar with. This corresponds with what is accepted as best practice in English. However, in looking at the curriculum guides for a few countries, we did not find consensus on which are the easiest and most frequently occurring letters.

Reading classes are often structured around texts, through which reading and grammar and other language topics are taught. What seems to be absent is an explicit focus on what in English is called “word works,” whereby children manipulate and work with the letters and sounds to form words before they move to texts. Vocabulary building through using morphological clues seems largely absent as well. Finally, writing generally seems to consist of copying in the early grades, with little focus on writing for meaning. Silent reading or reading to oneself also seems to be largely absent, although the research found significant correlations between reading.

The international development literature also spoke to the importance of reading to children and doing home-based reading activities, and generally reinforced the evidence from the scholarly literature that children who are exposed to MSA in the home or in preschool and kindergarten do better in reading in school.

Books and resources: While books (textbooks) were found to be in good supply in classrooms, age- and skill-appropriate storybooks and leveled readers largely were not in evidence. The presence of a school library or of books in the home correlated with better EGRA scores, speaking to the importance of access to reading materials, in addition to textbooks, which were generally in good supply.

Other significant factors: Finally, school attendance and time on task correlated with higher reading scores, not surprisingly. While this is probably true for beginning readers in many countries, not just Arabic-speaking countries, the complexity of learning to read in Arabic—in a language related to but not the same as one speaks in daily life, which demands a transition from a transparent (voweled) orthography to an unvoweled one—might make these two factors even more significant.

Conclusions and Recommendations

Conclusions: This study provides evidence of the challenges facing Arabic-speaking countries in terms of teaching reading. PIRLS and EGRA both suggest that children in Arabic-speaking countries are not learning to read as they should be. However, reviewing scholarly literature and research on learning to read in Arabic, plus project-based literature on how reading is taught and in what sort of literacy environment, revealed several emerging patterns.

Diglossia is a definite factor in how well children learn to read in MSA. Children need to develop listening comprehension skills and vocabulary in MSA; exposure to MSA as early as possible has been consistently shown to make a difference.

Findings over the past 15 years suggest that with emergent and struggling readers, providing diacritical marks has a positive impact on reading fluency and comprehension. Vocalization or short vowel markings are an aid to struggling readers and important for all children in first learning to read, as they render words phonologically transparent. This is an important tool for children as they first learn to decode, but diminishes in importance as they gain more reading skills, particularly in terms of morphological awareness.

Phonological awareness is critical to learning to read; it is not taught as systematically as might be desirable in the countries examined for this research. Children need to know the letter shapes, letter names, and letter sounds. Focusing on only one or two parts of this equation is detrimental. The *tariqa hijaiyah* favored spelling or orthography over being able to sound out words; however, the preponderance of research indicates that phonological awareness is the most critical variable in developing as a reader in the early grades.

Morphological knowledge impacts reading skills and is a very important tool in reading in Arabic. It is central to unlocking vocabulary, mastering elements of syntax, and determining meaning; however, it has been underused as an instructional strategy in teaching reading.

Sentence context is very important in unlocking sentence meaning. As pupils progress in their reading, they need to rely more heavily on sentence contexts to read fluently and with comprehension. Using context clues is a skill that can be taught and better integrated into instruction.

The presence and availability of appropriate reading materials at home and in school (beyond the textbook) correlated with higher EGRA scores. Having time to read in school correlated with better reading performance, as did regular teacher feedback and daily attendance at school.

Recommendations: Below are the general recommendations that emerge from the findings, divided into four major categories.

Early exposure to MSA:

- Home-based reading and writing activities using MSA should be expanded through awareness campaigns, and through school/education official outreach to families to help mitigate confusion that can come from Arabic diglossia.
- Community-based NGOs and community volunteer organizations concerned with education should be enlisted in efforts to read to young children and facilitate their understanding of MSA.

- Community-based NGOs and community volunteer organizations concerned with education should be enlisted in efforts to train parents in read-aloud skills for young children and connect them to available books for young children.
- Private kindergartens and preschools (of which there are many) should be informed of the importance of exposing children to MSA and encouraged to do story reading (read-alouds) and writing activities.
- Read-alouds should be a regular part of daily kindergarten and preschool lessons for both public and privately run classes in countries where there is a government-required or approved kindergarten or early childhood education curriculum.
- School leaders in particular should use their positions to reach out to parents and raise awareness among families in their schools' catchment areas of the importance of early exposure to MSA and early reading activities such as read-alouds.
- Ministries, schools, and communities should encourage reading clubs and other reading activities outside of school to promote the habit of reading.

Teacher professional development and classroom instruction:

- Teachers must be trained to teach the component skills of reading, starting with the critical phonological awareness skills and including alphabetic principles, morphology, and use of context clues. In particular:
 - Teaching of the alphabet needs more emphasis, given the low letter recognition skills seen in some of the EGRAs.
 - Activities and lessons exploiting morphological features of common words in early grade classrooms must be developed, and teachers must be trained to use these tools.
 - Modeling the process of how to use context clues (as well as phonological awareness and morphological processing) is a critical skill that teachers must have and be able to pass on to pupils. The development of model lessons and in-service training are potential avenues to disseminate this teaching knowledge.
- Teachers should also be trained to manage instructional time such that pupils have the opportunities to be read to by the teacher, to read silently to themselves, or to read with a partner.

Curricula:

- The teaching of reading should be combined into a subtopic under the overall Arabic curriculum to ensure that the component skills are taught thoroughly and coherently to all pupils.
- Teaching strategies for teaching the components of reading should be clearly defined within the curricula so that teachers with minimal training can deliver an effective lesson. For example, teachers need specific techniques for teaching alphabetic principles and teaching children to use word roots to derive word meanings.
- Structured lesson plans for early grade teachers (in the form of teachers' guides, for example) should be developed and distributed to teachers, whether through a central ministry or through district offices or NGOs.

Reading resources and materials:

More storybooks for preschool, kindergarten, and the early grades must be available at reasonable costs for families and schools to purchase and use. Ministries should lead this endeavor by producing or procuring books for the early grades.

Suggestions for Additional Research

Research on what works in teaching reading in Arabic is still nascent. There is much more to do, particularly on translating the research results that are available into teaching strategies that teachers can use in the classroom. As there is no agreed-upon ideal fluency rate for reading aloud in Arabic, more research is necessary on what would be a reasonable oral reading fluency rate for the early grades. While the US National Reading Panel (National Institute of Child Health and Human Development, 2000) has outlined some core principles that generally apply in teaching reading in an alphabetic language, such as Arabic, more research on things like the order in which letters should be taught, lists of frequently used words, the similarities and differences between the *tariqa hijaiyah* and the *tariqa sawtiya* (the spelling approach and the phonics approach) in teaching reading in Arabic would also be warranted.

In short, the research that has been done and that is cited extensively in this report was geared toward determining factors that contribute to reading fluency and comprehension—such as whether phonological awareness is as important as, or more important than, morphological awareness—rather than exploring how best to teach Arabic. Put another way, the literature offers good information on the linguistic elements to focus on when teaching Arabic—for example, telling us that morphological awareness is a critical skill children must develop—but says much less about how, for example, morphological awareness should be addressed in the classroom. Overall, there is less research available on teaching techniques in the classroom: How do teachers teach letters? What is the most effective order in which to teach letters? If morphological awareness is a key predictor of reading ability, how can it be broken down into teachable lessons? Should reading be its own separate subject in the curriculum? To what extent should teachers use dialect in the classroom? These are all questions that should be investigated in Arabic-speaking countries. As countries of the Middle East and North Africa begin to grapple with the challenges they face in effectively teaching reading, there will be many opportunities to carry out this type of research.

I. Introduction

In the name of God, the Gracious, the Merciful.

Read: In the Name of your Lord who created.

Created man from a clot.

Read: And your Lord is the Most Generous.

He who taught by the pen.

Taught man what he never knew. (<http://www.clearquran.com/> translated by Talal Itani)

Arab Muslims—indeed all Muslims—have been exhorted (in the Arabic language) to read since the dawn of Islam; “read” was the first command given the Prophet Mohammed from God. Today, Arabic is the first language of at least 223 million speakers (a conservative estimate) across the world, of various religions, most of whom live in the Middle East and North Africa. It is the fifth most spoken language in the world (Lewis, Simons, & Fennig, 2013). If one adds the population of all of the counties that list Arabic as their official language, the number of speakers rises to well over 300 million (*Table 1*).

Table 1: Countries listing Arabic as their official language

Country	Population
Algeria	38,087,812
Bahrain	1,046,224
Egypt	85,294,388
Iraq	31,858,481
Jordan	6,482,081
Kuwait	1,403,962
Lebanon	4,131,583
Libya	6,002,347
Mauritania	3,437,610
Morocco	32,649,130
Oman	3,154,135
Occupied Palestinian Territories	3,761,646
Qatar	2,042,444
Saudi Arabia	21,363,507
Sudan	34,847,910
Syria	22,457,336
Tunisia	10,835,873
UAE	5,473,972
Yemen	25,408,288
Total	339,738,729

Source: Central Intelligence Agency (2012).

“Official language” status in most of these countries means that Arabic is the language of education.³ Arabic has been described as diglossic, having a “high” form (Modern Standard Arabic [MSA], or *fus-ha*) and a low form (*ammiyya*) (Ibrahim & Aharon-Peretz, 2005). *Ammiyya* is a spoken dialect—it is a mother tongue—while *fus-ha* is learned, usually in school, and is the language of reading and writing. Thus, referring to Arabic as a mother tongue or native language is complex because most speakers do not speak formal MSA or *fus-ha* in daily life. While *fus-ha* is the lingua franca of the Arab world, even highly educated people speak the *ammiyya* for the communication activities of daily life. Importantly for education, children learn to speak Arabic in a local *ammiyya*, whose features (pronunciation, vocabulary, and grammatical structures etc.) differ, sometimes significantly, from MSA (Saiegh-Haddad, 2003; Ibrahim & Aharon-Peretz, 2005).

A reading expert who was interviewed for this study commented that learning MSA is akin to learning a second language:

So there is this common understanding almost that we are kind of learning a second language when we are now learning Arabic in school because we all know that our mother tongue in Lebanon is a colloquial language and kids go to school and restart learning phonemic awareness, vocabulary, sentence structure—everything from the beginning as if they are learning a second language.⁴

Fifty years ago, illiteracy was high in the Arab world, and reading and writing were the province of those who had received formal education. At that time, the number of those who had received formal education was, relatively speaking, low compared to the population of the region. Today, access has risen dramatically, and many more children receive a formal education. Countries like Jordan and Iraq and the Arabian Gulf countries have achieved nearly universal enrollment, and literacy rates are reported to have risen steeply as well.

Amidst this progress, issues have arisen around how well children learn to read and to write in Arabic. While increasing numbers of children have access to formal education in Arabic-speaking countries, dropout rates are still high in many places. In looking at issues of dropout and at issues of education quality in general, educators have seen some disturbing trends. International comparative tests such as Progress in International Reading Literacy Study (PIRLS) suggest that children are not learning to read and write as well as they should be (Institute of Education Sciences [IES], 2013). Recently administered Early Grade Reading Assessments (EGRAs) in Egypt, Iraq, Jordan, Morocco, and Yemen suggest that children are not learning to read well enough to learn across the curriculum (Collins & Messaoud-Galusi, 2012; RTI International, 2012; Brombacher, Collins, Cummiskey, de Galbert et al., 2012; Brombacher, Collins, Cummiskey, Kochetkova et al., 2012). In addition, employability studies have suggested that high school and university graduates are not well enough prepared to enter the workforce, and are lacking relevant skills in communication, writing, problem solving, etc. (United Nations

³ In some countries such as Lebanon, while Arabic is taught, French or English is the language of instruction.

⁴ Interview with Arabic reading specialist (see list of interviewees in *Annex D*).

Development Programme [UNDP], 2003). Employment studies reflect the effectiveness of early education, since literacy skills are the foundation of learning in the upper cycles and university.

The goal of this study is to better inform government ministries of education, the United States Agency for International Development (USAID) and other donors, and the international development community about effective, evidence-based programming for reading and writing improvement initiatives in Arabic-speaking countries. Specifically, the objectives of this study were the following.

- To review current evidence-based scholarly research on teaching and learning Arabic in an effort to identify what content and practices are most effective in helping pupils⁵ read with comprehension and express themselves in writing. (A list of works cited appears at the end of the main text of this document, and a full bibliography of documents consulted can be found in *Annex A*.)
- To review current, evidence-based ministry/donor/nongovernmental organization (NGO) research on effectively teaching and learning to read and write in Arabic.

Finally, as we progress through an examination of international reading assessment scores, evidence-based research on important factors in learning to read in Arabic, and the current state of reading instruction in many Arabic-speaking countries, it is important to articulate a definition of reading, which specifies the skills children need to develop when learning in an alphabetic language like Arabic. The end-goals of reading instruction are that pupils will be able to do the following.

- **Read aloud with fluency:** This is often defined as the ability to orally read connected text with speed, accuracy, and proper expression. Reading fluency is considered critical for comprehension, as rapid, effortless word-identification processes enable the reader to focus on the text and its meaning rather than decoding, or sounding out the words.
- **Comprehend what they read:** This is considered the ultimate goal of reading and refers to the ability to actively engage with, and construct meaning from, the texts that are read.
- **Listen with comprehension:** This refers to one's ability to make sense of oral language when there is no accompanying printed text. Listening comprehension taps many skills and sources of knowledge and is particularly important for a diglossic language such as Arabic, as children often are introduced to MSA once they begin formal schooling. Thus, listening comprehension assesses children's proficiency with MSA, rather than with the vernacular dialect they listen to and speak at home.

⁵ We use *pupil* and *student* synonymously in this paper. However, we have used *pupil* more frequently as it more strongly implies a child rather than a youth or adult. For example, <http://www.merriam-webster.com/dictionary/pupil> defines a pupil as: "A child or young person in school or in the charge of a tutor or instructor," and a student as: "a person who attends a school, college, or university."

Arabic has many features that are different from other alphabetic languages and that affect how reading should be taught. Nevertheless, there is a core set of skills that readers in any alphabetic languages need to master. To perform the three larger tasks above, pupils learning to read in an alphabetic language need to be able to:

- distinguish individual sounds (**phonological awareness**),
- connect symbols to sounds (**phonics**—i.e., identify which letters represent which sounds),
- know enough words (**vocabulary**) in the language to understand and communicate,
- **decode** connected text accurately and at sufficient speed, such that
- they are able to **derive meaning** from the text.

This study documents the state of teaching and learning reading in Egypt, Iraq, Jordan, Morocco, and Yemen, and identifies practices and approaches that can be deemed most effective based on existing evidence from scholarly, donor, NGO, and project-based research. While this study looks specifically at Egypt, Iraq, Jordan, Morocco, and Yemen, it draws on literature and examples of best practice from throughout the Arab world, including Kuwait, Lebanon, Oman, the Palestinian territories, and Saudi Arabia.

A. Research Questions

This study was structured around seven main research questions, which were informed by more specific questions about the mechanics of teaching and learning how to read in the Arabic language. The main questions about the state of teaching and learning to read in Arabic and best practices are presented in **Table 2**. Page numbers refer to the location of text boxes in later sections of this document that discuss the various research questions.

Table 2: Main research questions

1. What do data on the reading levels of primary grade pupils in countries that primarily use Arabic as a language of instruction tell us about how well pupils are learning to read? (p. 18)
2. What do data on primary grade reading instructional practices in countries that use Arabic as a language of instruction tell us about how reading is taught? (p. 56)
3. What is the state of knowledge regarding effective Arabic reading instruction in diglossic contexts, where pupils are first-language speakers of an Arabic dialect but not MSA? (p. 51)
4. What is the state of knowledge regarding effective Arabic reading instruction in bilingual contexts? What are key issues around the transition to and from reading in Arabic, including issues with language script? (p. 44)
5. According to the evidence above, are there any subregional similarities or differences of note in the teaching and learning of reading in Arabic (for example, Maghreb vs. Mashreq—i.e., North Africa vs. Middle East)? (p. 57)
6. What early grade reading interventions are currently being implemented in the Middle East and North Africa (MENA) by donors or MENA governments? (p. 62)
7. Who are the leaders (individual and institutional) in research and policy debates on primary school reading instruction in Arabic within and outside the region? (p. 62)

Certain questions specific to the Arabic language must be addressed to clarify what the best practices are in the teaching of reading. These technical questions are listed in **Table 3**.

Table 3: Technical research questions

8. In what order should letters be taught in vowelized Arabic? (p. 35)
9. How is pupil learning affected by using whole word recognition/spelling (*tariqa hijaiyah*) vs. phonics (*tariqa sawtiya*)? (p. 52)
10. What are the effects of *tashkeel* (all diacritics including short vowels) on automaticity? (p. 30)
11. How do beginning vs. expert readers see vowelized and unvowelized words? (p. 30)
12. How does *tashkeel* affect speed? (p. 30)
13. How should the transition to unvowelized words be facilitated? (p. 30)
14. To the extent that the existing literature allows, which grammatical and syntactical features are similar and different between standard Arabic and dialects of each country (e.g., conjugations, pronouns, popular use of verbs and nouns)? (p. 25)
15. How do diglossia effects interact with the removal of *harakat* (short vowels)? (p. 31)
16. Which *harakat* could be safely removed in various grades (e.g., the first vowel could be left with the intermediate ones removed)? (p. 31)
17. What vocabulary or syntactical difficulties do pupils have in later years that may prevent the comprehension of more complex text? (p. 39)
18. What is the range of fluency rates for each primary grade? (p. 18)

Not every question had a definitive, evidence-based answer; and some had not been fully and rigorously explored in the context of teaching reading in Arabic and thus were not well covered in the literature. There was a good base of literature on some of the larger topics on reading instruction in Arabic, such as diglossia, the removal or absence of short vowels, the importance of phonological awareness, phonics, morphological knowledge, and sentence context. The sections below present the findings on these major topics and others. Within each section, we have inserted text boxes to directly answer some of the research questions as we move through the literature review.

B. Methods

The primary research method of this analysis was a review and a synthesis of recent research in English and Arabic. The secondary method was stakeholder interviewing. Regarding the literature review, this study examined peer-reviewed scholarly research as well as donor and project-based or field-based literature and research. Only works that were rigorous in methodology and showed clear and compelling evidence for assertions made were reviewed. For the stakeholder interviews, a researcher in each country—Egypt, Iraq, Jordan, Morocco, and Yemen—conducted a series of face-to-face interviews with a variety of stakeholders in the education sector, formally focused on the teaching and learning of early grade reading in public schools. In-country researchers used an interview protocol developed by the research director and the senior researcher. This latter team, based in the United States, also conducted phone interviews with several Arabic reading experts in the Middle East and North Africa, outside of the target countries. (Their scope of work can be found in **Annex B**.) The interviewers, whether in-country or over the phone, recorded the interviews and/or took copious notes during the interviews. They were then transcribed and/or typed up for analysis. The interview protocol can be found in **Annex C**. The list of in-country researchers and the list of interviewees by country and professional role can be found in **Annex D**.

The interview data were analyzed using the qualitative software package NVivo 10; and the write-up and discussion of the interviews is included as **Annex E** to this report. We have integrated throughout the text specific, applicable quotations from those interviews.

The report findings are organized into three sections (sections II, III, and IV in this report) to reflect the bodies of work examined in this study:

- International pupil assessments;
- Scholarly research; and
- International development research on schools, instruction, and communities.

Section V presents recommendations and conclusions.

II. How Well Are Pupils Learning to Read in the Early Grades? Results from International Reading Assessments

For this section, we looked at how well early grade pupils were learning to read in Arabic according to recent rigorous testing of reading skills. The three tests we looked at were (1) the Progress in International Reading Literacy Study (PIRLS), in which seven Arabic-speaking countries participate; (2) the Early Grade Reading Assessment (EGRA), in which five countries to date have participated; and finally, (3) the Literacy Boost test administered to pupils in three regions of Yemen. The consistency of the scores for countries that had participated in two of these three measures reinforces the significance of the problem. (PIRLS and EGRA were administered in Morocco; EGRA and Literacy Boost were administered in Yemen.)

There has been growing government and donor—multilateral and bilateral—interest in assessing how well pupils are learning to read. The measurement of reading skills has been somewhat irregular. Government examinations tested language skills but not necessarily the component skills related to reading—the skills pupils must master to become readers. With automatic promotion common in the early grades in many countries in the region, one could argue that there was a dearth of information on whether children were learning to read well. Certainly, there is documentation that some children across the Arabic speaking world were not doing well in school by the end of sixth grade, as evidenced by end-of-cycle examination scores and dropout rates. What has not been documented until recently is whether or not children learn to read well enough in school to succeed in their learning. While children drop out of school for a variety of well-documented reasons—including poverty, work, inadequate school facilities, early marriage, and lack of success in school—the last, lack of success, is a common reason given and could directly relate not to an inability to learn subject content but to an inability to learn to read. In this section we examine some of the recent reading assessments in Arabic-speaking countries.

A. Progress in International Reading Literacy Study (PIRLS)

PIRLS is an international comparative study of the reading literacy of young students. It measures trends in reading comprehension (including reading achievement, reading behaviors, and reading attitudes) of fourth-grade students and students in the equivalent of fourth grade in PIRLS participating countries. The International Association for the Evaluation of Educational Achievement (IEA) has led the assessments on a consistent five-year cycle since 2001.

The PIRLS 2011 is the third comparison of reading achievement carried out since 2001 by the IEA. In 2011, 57 education systems (including countries and other education systems)

participated, with 53 having participated at the fourth-grade level (IES, 2013). Among the 57 education systems, seven Arabic-speaking countries have been involved: Kuwait, Morocco, Oman, Qatar, Saudi Arabia, and United Arab Emirates (UAE). Abu Dhabi and Dubai of the UAE participated in the benchmarking (Mullis, Martin, Foy, & Drucker, 2012). In 2001, two Arabic-speaking countries (Kuwait and Morocco) participated in PIRLS, and in 2006, three participated (Kuwait, Morocco, Qatar).

Performance by average scores: In general, pupils in Arabic-speaking countries had low performance by average scores in the three PIRLS assessments. The scale center-point of 500 was set to correspond to the mean of the overall reading achievement distribution in PIRLS. In PIRLS 2011, the Arabic-speaking countries were below the average at the bottom of the list with scores ranging from 439 to 310 for fourth graders (Mullis et al., 2012).

Specifically, the scores for the Arabic-speaking countries (and for several other countries in the same range, for comparison's sake) were as follows.

Out of the 45 countries participating in the fourth-grade test:

- Colombia 448 (immediately above UAE)
- UAE 439
- Saudi Arabia 430 (immediately behind UAE)
- Indonesia 428
- Qatar 425
- Oman 391
- Morocco 310 (lowest score of all 45 countries)

Out of the four countries participating in the sixth-grade test, these were the scores:

- Honduras 450
- Morocco 424
- Kuwait 419
- Botswana 419

All fell below the midpoint.

In the first administration of PIRLS in 2001, Kuwait (394) and Morocco (347), as the only two Arabic-country participants, were far below the average and, in fact, were third and second respectively from the bottom of the scale, just above Belize, which had a 330 (Mullis, Martin, Gonzalez, & Kennedy, 2003). In 2006, Qatar joined Morocco and Kuwait in taking the PIRLS. Qatar came in at 353 while scores from Kuwait and Morocco dropped some to 330 and 323, respectively. For comparison's sake, the lowest score in 2006 was South Africa, with 302 (Mullis, Martin, Kennedy, & Foy, 2007).

Interestingly, in the PIRLS 2001, 2006, and 2011, girls had higher reading achievement overall than boys. In 2011, some of the largest gender differences favoring girls (27–54 points) were found in the Arabic-speaking countries, including the United Arab Emirates, Morocco, Qatar, Oman, and Saudi Arabia. At the sixth grade, girls had higher average reading achievement than

boys in all four countries that tested at the sixth-grade level, including Morocco (Mullis et al., 2012; Mullis et al., 2003; Mullis et al., 2007).

Another interesting element of the PIRLS regarding the Arabic-speaking countries related to reading achievement relative to the type or purpose of the reading. At the sixth-grade level, Kuwait showed no differences by reading purpose (i.e., literary or informational) relative to its overall score. Morocco, on the other hand, had lower achievement in literary reading and higher achievement in informational reading than its overall score. The two emirates, Dubai and Abu Dhabi, had the same pattern as the whole of the United Arab Emirates and Morocco—relatively lower achievement than the overall score in literary reading and relatively higher achievement in informational reading. These findings could suggest children are not mastering higher reading skills such as inferring meaning or comprehending literary devices.

Performance on international benchmarks: The PIRLS achievement scale summarizes fourth-grade pupils' performance in reading a range of literary and informational texts. For each of these texts, pupils responded to questions measuring a variety of comprehension processes, including retrieval, inferencing, integrating, and evaluating what they had read. PIRLS reported this achievement at four cut points along the scale, as international benchmarks, as follows (Mullis et al., 2012).

- | | |
|--|-----|
| • Advanced international benchmark | 625 |
| • High international benchmark | 550 |
| • Intermediate international benchmark | 475 |
| • Low international benchmark | 400 |

Morocco, Kuwait, and Qatar, as the three Arabic PIRLS participants in 2006, had low percentages vis-à-vis the four benchmarks. The 2006 percentages for the pupils in these countries who met one of the four benchmarks were:

- **0%** of pupils reached the Advanced benchmark
- **1–2%** of pupils reached the High benchmark
- **9–11%** of pupils reached the Intermediate benchmark
- **21–65%** of pupils at the Low benchmark

PIRLS 2011 saw a big improvement in the percentages of pupils meeting each of the benchmarks. Arabic-speaking countries broke into the advanced category and saw a large jump in the number of pupils who met the High benchmark. Likewise, there was a significant increase in those who met the Intermediate benchmark.

- **0–3%** of pupils at the Advanced benchmark
- **1–14%** of pupils at the High benchmark
- **7–38%** of pupils at the Intermediate benchmark
- **23–36%** of pupils at the Low benchmark

Still, most pupils in the participating Arabic-speaking countries in 2011 fell into the Low International Benchmark category, and significantly fewer pupils reached higher levels.

However, based on these data, the trends are moving in the right direction within these countries, even if they have yet to surpass the midpoint of 500 for overall scores. Building on this progress and retaining the upward momentum is critical.

B. Early Grade Reading Assessment (EGRA)

The EGRA was developed in 2006 as a tool to measure children's reading skills. The objective was to help the international development community and partner countries begin the process of measuring, in a systematic way, how well children in the early grades of primary school are acquiring reading skills, and ultimately to spur more effective efforts to improve performance in this core learning skill.

The assessment tool was developed initially in English but has been adapted into many languages, including Arabic.⁶ The EGRA tool was designed to assess how well pupils perform on the component skills of reading such as letter naming, letter sound identification, the ability to sound out words, oral reading fluency, and comprehension. Since it tests these necessary skills for reading achievement, it can be used to inform the development of reading standards, curricula, and teacher training programs. Indeed, EGRA's purpose since its design in 2006 has been to inform ministries of education, donors, teachers, and parents about primary pupils' reading skills.

EGRA tests were adapted for each country by ministry officials and other educators from the countries, respectively. The same subtasks were administered in Iraq, Jordan, and Morocco. Additional subtasks were included in Yemen (such as concepts of print and letter naming). Egypt was the earliest administration, and all subtasks were administered.

The EGRA results provide a good snapshot into reading levels across the Arabic speaking region.⁷ While it is difficult (and sometimes imprudent) to compare across countries as different as those in this study and in the Arab region as a whole, the value in doing so is to see if there are similarities or trends where children are succeeding or struggling to read in MSA, the lingua franca and language of instruction.⁸ As our interest in this study was in examining actual evidence of the state of reading in the early grades, EGRA provided a unique set of recent, reliable, and valid data from which to gain insight.

Table 4 below summarizes the EGRA results for primary school grades 2 and 3 by subtask at the country level for the purposes of identifying any trends in the scores. Trends could be used to

⁶ For more background information on the EGRA tool and its development, go to <https://www.eddataglobal.org>.

⁷ Some caveats are in order, however. All of the instruments used in these countries' assessments were developed and administered in MSA, with similar subtask construction, and following the guidance laid out in the *EGRA Toolkit* (RTI International, 2009) and *Guidance Notes* (RTI International and International Rescue Committee, 2011). However, content was also based on the teaching and learning materials of each individual country. In other words, the tools were not designed to be directly comparable across the different countries because neither equated nor identical passages and words were used.

⁸ Lebanon might constitute an exception; most schools teach the majority of subjects in either English or French; however, pupils study Modern Standard Arabic (of which the Lebanese dialect is their native tongue) in school from the beginning and do learn to read in it, even as they are learning other languages. They continue to study Modern Standard Arabic throughout their schooling years.

inform instructional practice in the teaching of reading in Arabic as well as to address the first research question of this study regarding how well primary grade pupils are learning to read in countries that primarily use Arabic as a language of instruction. The summarized scores are overall totals and include the zero scores (i.e., the scores of children who could complete none of the tasks).

The left column of the table describes the subtask the child performed. It also indicates whether the test was timed and the number of items the child was asked to respond to (i.e., identify 100 letters or respond to 6 comprehension questions). The numbers in the next two columns to the right (under the country headings) indicate the number of correct responses on average by grade for each country. For example, for the letter sound knowledge subtask, second graders in Egypt were able to identify 9.76 letter sounds in a minute of time (out of a possible 100 letters); in Iraq, second graders were able to identify 13.6 letter sounds in a minute of time, out of 100 letters. In Jordan, second grade pupils identified 26.5 letters in a minute of time out of a possible field of 100 letters, and so on.

For Egypt, in the second grade column, the number on top is the pre-test score and the number underneath it is the post-test score. Only Egypt has pre- and post- test data, but due to administration issues, reliable and valid data were collected for only three of the seven subtasks at the second grade level when initially administered. (The gains will be discussed in more detail below.)

Table 4: Composite scores across countries and grades

	*Subtasks	Egypt**		Iraq		Jordan		Morocco***		Yemen	
		P2	P3	P2	P3	P2	P3	P2	P3	P2	P3
1	Letter name knowledge (100 letters presented; pupils had 1 minute of time to name the letters)									16.78	21.52
2	Initial sound identification (10 items)									1.04	1.35
3	Letter sound knowledge (100 letters presented; pupils had 1 minute of time to make letter sound)	9.76	18.8	13.6	13.5	26.5	26.3	23	33	4.74	6.22
		28.47									
4	Familiar word reading (50 familiar words presented to be named in 1 minute)	7.35								6.74	12.32
		15.5									
5	Nonword decoding (out of 50 pronounceable made-up words/1 minute of time)		5.9	3.7	4.7	4.4	7	10	15	2.63	4.5
6	Oral reading fluency (50-word story to read aloud/1 minute of time)	11.09	21.9	11.4	21.2	15.2	23.7	16	27	5.85	11.98
		21.14									
7	Reading comprehension (6 questions about the story—basic facts)		1.9	0.9	1.6	2	2.9	0.74	1.49	0.24	0.59
8	Listening comprehension (passage read to pupils; 6 questions about passage)		3.2	2.9	3.4	2.2	2.9	2.34	3.37	0.85	1.51
9	Dictation (3 words made up of 15 letters; first score is # of words written correctly, and second score is # of letters taken down correctly)									0.62	0.91
										7.28	10.22

*The tables shaded in blue indicate tests that were only given in Yemen; hence there will be no comparable scores from the other countries.

**Egypt is the only country that had pre- and post- test data to report; the number on top is the baseline and the number below the post-test score following intervention.

*** The EGRA in Morocco was carried out in one region only and is not a national representation.

Note: The results presented in this table are solely intended to indicate broad differences and similarities among the countries assessed. The EGRA instruments adapted for each country were not designed to be directly comparable because neither equated nor identical passages and words were used.

One trend to note is that for the most part, pupils were moving in the right direction from one grade to the next. Nonword decoding (subtask 5) scores were low but moving in the right direction across the grades. In subtask 3 (letter sound knowledge) there was very little difference in scores from grade 2 to grade 3. Subtasks 7 and 8 (reading and listening comprehension) also showed rather small differences between grades 2 and 3, where one might expect to see more difference. The results suggest that pupils may not be learning the basic skills in an incremental fashion (i.e., increasing with each grade) or at a rapid enough pace to help them improve on these tasks.

The post-test results in Egypt for second grade pupils who participated in the pilot reading program were impressive. Students doubled their scores or better after the program interventions. The interventions focused on teaching teachers to provide better instruction in the component skills of reading. Teachers developed techniques to build phonemic awareness and phonics skills among pupils, with a heavy focus on alphabetic principles. The Egypt case suggests that ensuring teachers have the skills to teach the components of reading is very important.

EGRA results across countries showed a relationship between average listening comprehension and average reading comprehension (% questions answered correctly in both cases).⁹ There were consistently low scores in listening comprehension across all Arabic-speaking countries, which suggest that students did not understand the MSA spoken in schools. Low listening comprehension results were tightly related to poor reading comprehension and, likewise, improvements in listening comprehension were tied to improvements in reading comprehension.

Tables 5 and **6** summarize the scores and percentage of correct answers by subtask and country for each grade separately. These tables can be read in almost the same way as the ones above, except for the % column. In **Tables 5** and **6**, in addition to average scores (average number of correct responses per grade), we have inserted a percentage score to give a sense of the proportion of correct responses. For example, the actual score for listening comprehension in Iraq looks quite low (second graders on average answered fewer than 3 questions correctly); however, as a percentage, we see that these scores were nearly at the 50% correct level.

⁹ RTI International, presentation on the Early Grade Reading Assessment, 2013 USAID Education Summit, Washington, DC, August 2013.

Table 5: Grade 2 EGRA scores by country

	*Subtasks	Egypt**		Iraq		Jordan		Morocco***		Yemen	
		#	%	#	%	#	%	#	%	#	%
1	Letter name knowledge (100 letters presented; pupils had 1 minute of time to name the letters)									16.78	16.8%
2	Initial sound identification (10 items)									1.04	10.4%
3	Letter sound knowledge (100 letters presented; pupils had 1 minute of time to make letter sound)	28.47	28.5%	13.6	13.6%	26.5	26.5%	23	23.0%	4.74	4.7%
4	Familiar word reading (50 familiar words presented to be named in 1 minute)	15.50	31.0%							6.74	13.5%
5	Nonword decoding (out of 50 pronounceable made-up words/1 minute of time)	21.14	42.3%	3.7	7.4%	4.4	8.8%	10	20.0%	2.63	5.3%
6	Oral reading fluency (50+-word story to read aloud/1 minute of time)			11.4	22.8%	15.2	30.4%	16	32.0%	5.85	11.7%
7	Reading comprehension (6 questions about the story—basic facts)			0.9	15.0%	2	33.3%	0.74	12.3%	0.24	4.0%
8	Listening comprehension (passage read to pupils; 6 questions about passage)			2.9	48.3%	2.2	36.7%	2.34	39.0%	0.85	14.2%
9	Dictation (3 words made up of 15 letters; first score is # of words written correctly second score is # of letters taken down correctly)									0.62	20.7%
										7.28	48.5%

* The tables shaded in blue indicate tests that were only given in Yemen; hence there will be no comparable scores from the other countries.

**Scores used are from 2011, as the most current EGRA data on grade 2 reading levels in Egypt.

*** Morocco's EGRA was carried out in one region only.

Note: The results presented in this table are solely intended to indicate broad differences and similarities among the countries assessed. The EGRA instruments adapted for each country were not designed to be directly comparable because neither equated nor identical passages and words were used.

Table 6: Grade 3 EGRA scores by country

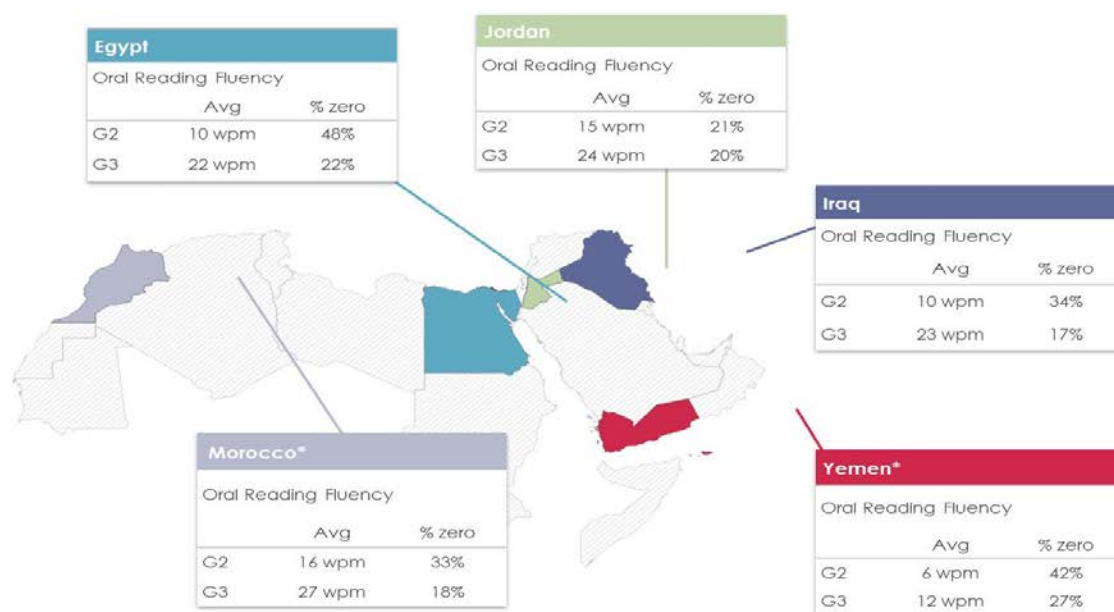
	*Subtasks	Egypt		Iraq		Jordan		Morocco**		Yemen	
		#	%	#	%	#	%	#	%	#	%
1	Letter name knowledge (100 letters presented; pupils had 1 minute of time to name the letters)									21.52	21.5%
2	Initial sound identification (10 items)									1.35	13.5%
3	Letter sound knowledge (100 letters presented; pupils had 1 minute of time to make letter sound)	18.8	18.8%	13.5	13.5%	26.3	26.3%	33	33.0%	6.22	6.2%
4	Familiar word reading (50 familiar words presented to be named in 1 minute)									12.32	24.6%
5	Nonword decoding (out of 50 pronounceable made-up words/1 minute of time)	5.9	11.8%	4.7	9.4%	7	14.0%	15	30.0%	4.5	9.0%
6	Oral reading fluency (50+-word story to read aloud/1 minute of time)	21.9	43.8%	21.2	42.4%	23.7	47.4%	27	54.0%	11.98	24.0%
7	Reading comprehension (6 questions about the story—basic facts)	1.9	31.7%	1.6	26.7%	2.9	48.3%	1.49	24.8%	0.59	9.8%
8	Listening comprehension (passage read to pupils; 6 questions about passage)	3.2	53.3%	3.4	56.7%	2.9	48.3%	3.37	56.2%	1.51	25.2%
9	Dictation (3 words made up of 15 letters; first score is # of words written correctly second score is # of letters taken down correctly)									0.91	30.3%
										1.9	68.1%

* The tables shaded in blue indicate tests that were only given in Yemen; hence there will be no comparable scores from the other countries.** In the Doukkala Abda region only.

Note: The results presented in this table are solely intended to indicate broad differences and similarities among the countries assessed. The EGRA instruments adapted for each country were not designed to be directly comparable because neither equated nor identical passages and words were used.

One trend worth noting in looking at performance on specific tasks across countries is that scores were generally very low across the board in the area of phonological awareness for grade 2. Scores did seem to make a bit of a jump in grade 3 but were still low, given the expectation by most ministries that children should have some proficiency in reading by grade 3. Nonword decoding has been the subject of much debate and was questioned by some scholars in terms of its applicability to Arabic. The nonwords (and words) were all vowelized, and a good deal of research cited above suggested that short vowels are an aid to identifying or sounding out unfamiliar words in both children and adults. These EGRA results indicated that even by third grade two-thirds of the children tested (and more in most countries) were not able to use phonological skills to sound out words. Even taking into account the zero scores included in these numbers (for all countries), the numbers and percentages of children who could use phonological skills were low (**Table 7**). This might suggest the need for additional training of teachers in how to teach phonological awareness skills (segmenting and blending skills, for example).

Table 7: Words per minute scores by country



Source: RTI International, presentation on the Early Grade Reading Assessment, 2013 USAID Education Summit, Washington, DC, August 2013.

As far as reading comprehension goes, even at the third grade level, average scores indicated that pupils were able to answer fewer than half of the questions correctly. This could be related to fluency levels. At the third grade level, on average, pupils were able to read aloud accurately only about half or less of the story. Reading at this rate can hinder comprehension as the pupil forgets what he or she read at the beginning of the story while struggling over individual words. The stories were vocalized; however, if phonological awareness and phonics knowledge are low, the vocalization may not have made a difference.

Table 8 below, from an EGRA cross-country comparative presentation, reports that pupils who attained over 80% comprehension had ORF scores that were good (at least over 43 wpm). Oral reading fluency and comprehension were correlated, and ORF did predict comprehension.

Put another way, it seems that even when reading grade-leveled stories using words from the textbooks/curricula in each country and full vocalization, pupils were still having difficulty decoding quickly enough to attain comprehension. This difference could suggest that teachers must focus on explicitly teaching comprehension strategies. In Arabic, recognizing word morphology would be one such strategic area, another could be making more use of context clues. The review of scholarly literature in the subsequent section also suggested that early exposure to MSA facilitated oral comprehension; this in turn could be a strategy through which to improve pupils' reading fluency and comprehension.

Table 8: Correspondence of comprehension and ORF rates across countries, third grade students

Country	Reading with at least 80% comprehension	Corresponding average ORF (cwpm)
Egypt	9%	47 +
Iraq	9%	60 +
Jordan	27%	43 +
Morocco	2%	55 +
Yemen	3%	48 +

Source: RTI International, presentation on the Early Grade Reading Assessment, 2013 USAID Education Summit, Washington, DC, August 2013.

C. Literacy Boost Yemen Baseline Report

In 2011, Save the Children (SC) carried out an assessment of reading in 11 schools in Aden, Lahj, and Abyan, all in the south of Yemen. The sample also included one SC-supported refugee school. SC selected 60 pupils per school (across grades 1, 2, and 3) and tested them on six skill components of reading, including 1) concepts of print, 2) alphabetic knowledge, 3) common word reading, 4) oral reading fluency, 5) oral reading accuracy, and 6) comprehension (listening and reading). SC used its Literacy Boost assessment tools adapted for Yemen. Passages and words were selected in reference to the Yemeni early grade Arabic curriculum. Literacy Boost and EGRA are comparable in what they test and the testing methods used.

Results (see Gavin, 2011) showed that children clearly gained knowledge in how to use books (i.e., concepts of print) as the grades progressed, with first graders answering 10 out of 14 questions correctly, second graders answering 11 out of 14 correctly, and third graders answering 13 out of 14 correctly on average. In terms of letter recognition, first graders named 20/35 letters correctly in the independent position and 18/35 correctly in an initial, medial, or final position. However, less than a third of children were able to identify the short vowels correctly, and half were confused by similar-looking letters (i.e., where letters have the same shape and are differentiated by a dot only). Scores increased over the grade levels, although letters in different positions still confused pupils, with 20% of third graders still struggling to identify all letters in all positions. Short vowel identification was still problematic in third grade with less than 60% of

pupils able to identify all of the short vowels. Likewise, word recognition was also moving in the right direction but still low overall. Out of 10 familiar words, first graders on average identified 3; out of 20 words, on average, second graders read 7 correctly, and third graders read 11 correctly. The percentages of pupils who had zero scores were high: 31% of first graders, 37% of second graders, and 20% of third graders could not read any words from the list. Reading fluency was low—2 words per minute (wpm) for first graders, 6 wpm for second graders, and third graders read 16 wpm. Zero scores were quite high: 115/219 first graders, 115/220 second graders, and 6/220 third graders were not able to read a single word. In terms of accuracy, and excluding zero scores, which were similar to those in the fluency test, accuracy levels on average were as follows: first graders accurately read 11 words of the passage (about half the words), second graders were able to read 30 words accurately (over 50% of the passage), and third graders read 74 words correctly, which constituted 72% of the words in the passage.

Lastly, in terms of comprehension, reading comprehension scores were surprisingly better than listening comprehension and better than expected given the struggles pupils had with reading the passage aloud fluently and accurately. In other words, while not able to accurately read the passage, pupils were able to find meaning in the text. Third graders got between 70 and 90% of the responses correct on average. (The passage used for accuracy and fluency testing was used for comprehension as well. Pupils who read the text were allowed to look back at it for reference. The text was reread to pupils who did not reach double digits in terms of number of words read, to check for listening comprehension.) This could be attributed to the fact that reading aloud requires reading case endings and all the diacritics; when reading to oneself, one does not have to process all of this information: “Silent-reading comprehension is less demanding [than reading aloud], because the reader can rely on orthography, morphology, and other resources” (Abu-Rabia, 2002).

Research Question 1: What do data on the reading levels of primary grade pupils in countries that primarily use Arabic as a language of instruction tell us about how well pupils are learning to read?

Data indicate that pupil reading levels are not as strong as they should be. The most recent comparative assessment administered across the five target countries was the EGRA. In all cases, reading levels were low (Brombacher, Collins, Cummiskey, de Galbert et al., 2012; Brombacher, Collins, Cummiskey, Kochetkova et al., 2012; Collins & Messaoud-Galusi, 2012; Gavin, 2011; Messaoud-Galusi, Mulcahy-Dunn, Ralaingita, & Kochetkova, 2012). Of particular concern, mastery and knowledge of the component skills of reading was not evident. Pupils scored poorly on foundational skills like identifying letter sounds, knowing letter names, sounding out words, and recognizing familiar words. Given weaknesses in these areas, ORF was also low, and this in turn related to low comprehension scores, as it is generally accepted that pupils must read at a minimum level of fluency to comprehend what they are reading.

Beyond EGRA, PIRLS also suggested that there was a reading problem in Arabic-speaking countries. Arabic-speaking countries of high, middle, and low income levels all scored solidly below the PIRLS midpoint (Mullis et al., 2012). While there seems to be movement in a positive direction, it is clear that pupils are not learning to read as well as they could or should be.

Research Question 18: What is the range of fluency rates for each primary grade?

There were no ideal words per minute rates set out in any of the literature. Abu-Rabia suggested that fluency rates for Arabic might be slower than fluency rates for English because there so many complex processes going on as a child reads, especially with unvoweled text. Ministries did not appear to have set fluency ranges for the grade levels,

Yemen uses a whole language approach in that pupils are taught to memorize words by shape in first grade. They are not taught letters sounds and introduced to vowel markings until later in the year. Thus, they are not taught to sound words out, and memorizing words by shape is difficult in a language with many homographs and many words that look very similar even if they are not identical (Gavin, 2011). Given the use of the whole word approach, children did not have the skills to sound out words, which is a first step in reading.

In summary to this section, overall, the EGRA data and the PIRLS data (acknowledging that each test is only given in five countries in the region, with only Morocco in common), and the Literacy Boost data from Yemen, showed early grade reading levels consistently low enough to be of concern. As we look, in the subsequent sections, at the significant skills in reading in Arabic that children need to master, and at the state of teaching reading, where it falls in the curriculum, and how well schools are equipped, we will put these reading level scores in a context that fleshes out the reasons they are so low. While there are reasons to be optimistic—the gains Egypt has made on EGRA and the upward trend of pupils meeting higher benchmarks on PIRLS—there is still much to be done.

III. Scholarly Literature

The purpose in reviewing the scholarly literature on teaching and learning reading in Arabic is to identify linguistic, instructional, or environmental factors that have been proven instrumental or significant in the process of learning to read in Arabic, so that practitioners, seeking to address the low scores outlined above, will have more insight into where to focus in Arabic-speaking countries.

For this study, both scholarly literature/research and literature from the international development education sector on the topic of literacy learning in Arabic were reviewed in both English and Arabic. While some of the scholarly research looked at adult subjects in examining the process of reading in Arabic, all of the literature examined had direct applicability to early-grade reading and writing instruction in Arabic. Furthermore, the analysis prioritized reviewing studies from both genres of literature that evidenced rigorous, firsthand research on Arabic readers. We assumed that research on teaching Arabic literacy in one context had relevance to additional Arabic language contexts; the literature examined discussed the teaching and learning of reading and writing skills in Arabic in any country across MENA, not just the five focus countries. Indeed, much of the scholarly research came from countries outside of the five focal countries, such as Palestine, Saudi Arabia, and others.

Scholarly research studies that had been published in peer-reviewed journals were prioritized. While some seminal studies were mentioned, such as Ferguson's description of Arabic as a diglossic language (Ferguson, 1959) and El-Hassan's disagreement with this characterization (El-Hassan, 1977), this analysis focused on literature from the last 20 years, and the majority of citations were from studies done after 2000. The earliest studies reviewed, from 1990 and 1993, were on the effects of exposing young children to MSA in preschool and kindergarten; they have been consistently cited in research in the 2000s. It is worth noting that two preeminent scholars from the region, Salim Abu-Rabia and Elinor Saiegh-Haddad, had done a large number of the rigorous experimental studies that have laid the groundwork for others in terms of how children (and even adults) learn to read in Arabic, and they were extensively cited in this study.

Finally, in terms of sources, Florida State University's extensive holdings and reciprocal arrangements with other universities, and databases such as the Educational Resources Information Center, or ERIC, and Google Scholar, as well as the relevant website were used. For Arabic language sources, we used the Saudi digital library (SDL), which includes multiple Arabic education data bases such as AskZag,¹⁰ Dar Al Mandumah, and Edu.Search. Shamaa, the Arabic education network, was used for Arabic reading education resources.

In addition to the review of research studies described above, the Ministry of Education websites for several countries in the Arabic world were reviewed, including the five target countries for this study, as well as Bahrain, Lebanon, Oman, Qatar, and Saudi Arabia. This review was done

¹⁰ AskZag (يبرعلا تامول عمل كن ب) at: http://www2.askzad.com/e_genpages/default.aspx

to better understand the context and policy environment in which Arabic reading and writing skills are being promoted and taught in the Arab world and to identify specific, salient government-sponsored initiatives that focus on Arabic reading and writing skills in the early grades.

Several themes emerged from the literature review and the interviews that addressed the research questions above. They were as follows.

- The role of diglossia in the teaching and learning of literacy skills in Arabic, including the positive impact of early exposure to MSA in facilitating vocabulary development and listening comprehension (oral language development)
- Vocalization (i.e., using short vowel diacritics called *tashkeel* or *harakat* in Arabic), otherwise called “vowelings” in English, is an important support for emergent readers and an aid to struggling readers, as it renders Arabic orthography transparent and facilitates initial reading fluency
- The centrality of phonological awareness in reading early grade texts, and the value of explicit teaching of letter names and corresponding sounds (phonics)
- Knowledge of Arabic morphology and its positive impact on decoding, vocabulary, and reading fluency with unvoweled text
- The critical supporting role of context clues for decoding words in unvocalized texts.

Likewise, development literature, including the EGRA reports, tended to focus on the need to teach phonics, phonological awareness, and vocalization. Project-based literature tended to offer more data on actual teaching methodologies used in classrooms and in so doing discussed the importance of facilitating phonological awareness, the explicit teaching of phonics (letter names and corresponding letter sounds), the impact of providing explicit feedback to pupils, pupil attendance, and the presence of reading materials as key factors in improving reading levels. These studies also acknowledged the complexity of teaching and learning Arabic literacy in a diglossic environment.

The literature review was divided into two major sections: scholarly or academic research/literature and development or project-based literature. The intent was not to privilege one over the other, as all of the studies we examined were methodologically rigorous. The scholarly literature endeavored to provide a more solid theoretical framework for the teaching and learning of reading and writing in Arabic, one that pushed us toward more universal principles; the project-based research was grounded in the educational and classroom contexts of the specific countries we were focusing on (in addition to providing some additional examples) and was drawn from projects that in most cases are still in progress.

The scholarly research was organized by consistent themes: diglossia, vowelings, phonological awareness, morphological awareness, and sentence context. Within the development literature, findings from the five target countries vis-à-vis reading levels, teaching methodologies, school environment, and “culture of reading” issues were presented, while some examples from other Arabic-speaking countries were woven in as well.

A. Diglossia and Vocalization: Two Distinguishing Features of the Language and How They Impact Reading Acquisition

Arabic is an alphabetic language, as is English. Most of the scholarly literature on reading came from English language studies. Mahfoudhi, Everatt, and Elbeheri (2011) argued that while these studies are informative, more studies on Arabic are still needed to better understand language processes, phonological processes, and orthographic processes specific to Arabic. Data below show that many of the studies' conclusions on what reading skills were critical in English apply to Arabic—i.e., phonological awareness, phonics, vocabulary, fluency, and comprehension are all skills and knowledge that pupils must master in either language to become fluent readers. However the unique features of the Arabic language shape how those skills should be taught. Below, we review two important features of the Arabic language that directly impact reading and reading success: diglossia and vowelizing.

1. Diglossia

It is generally accepted that Arabic is a diglossic language.¹¹ A technical dictionary definition of diglossia is: “a situation in which two languages (or two varieties of the same language) are used under different conditions within a community, often by the same speakers. The term is usually applied to languages with distinct ‘high’ and ‘low’ (colloquial) varieties, such as Arabic.”¹² This is a singular feature of Arabic that makes the process of learning to read and write more complex. In essence, children learn to speak in a colloquial form of Arabic, which is usually differentiated by country—i.e., Moroccan Arabic (said to be the hardest to understand by Arabic speakers from the Levant—Eastern Mediterranean—area), Egyptian Arabic (most commonly understood due to the ubiquity of Egyptian films), Saudi Arabic, Palestinian Arabic, etc. When children go to school, however, they must begin learning in a cross-national form of Arabic used for official or formal speech (i.e., newscasts, public addresses), for films and television shows, for writing and for formal teaching and learning contexts. This more formal Arabic is referred to as Modern Standard Arabic or MSA. Ibrahim, Khateb, and Taha (2013) stated that:

Arabic is a typical case of diglossia. According to Saiegh-Haddad (2005), modern standard Arabic (MSA) is the language used throughout the Arabic speaking world for writing and some other formal functions, such as speeches and religious sermons, while the spoken Arabic vernacular (SAV) is the language used for everyday conversation. The classical literary version is studied in school and is not acquired naturally without formal learning. Ibrahim (2009) reported that learning LA [literary Arabic] appears to be, in some respects, more like learning a second language than like learning the formal register of one's native language. (p. 40)

¹¹ See El-Hassan (1977) for a differing perspective.

¹² See Saiegh-Haddad (2003) and Alshamrani (2008) for more in-depth discussions of diglossia and high/low forms.

Indeed, some scholars have posited that MSA is effectively a second language for Arabic-speaking children (Ibrahim & Aharon-Peretz, 2005). This viewpoint holds, in part, because of the significant differences, or the linguistic distance, that have evolved between colloquial Arabic and MSA (Saiegh-Haddad, 2003b):

The use of two varieties of Arabic for mutually exclusive sets of functions has meant that the two forms have become distant and subsequently distinct. The linguistic distance between MSA and the local spoken vernaculars is illustrated by a variety of diglossic variables (cf. Walters, 1994), or linguistic structures that survived in MSA but disappeared from colloquial Arabic. (p. 432)

Levin, Saiegh-Haddad, Hende, and Ziv (2008) elaborated:

Spoken Arabic vernaculars are all linguistically related to MSA. Nonetheless, they are remarkably distinct from it. ...Research has shown that the linguistic distance between standard Arabic, the language of print, and spoken Arabic vernacular, the oral language of children, challenges the acquisition of reading in Arabic... (pp. 414–415)

In the scholarly literature, research on diglossia, much of it using an experimental design, focused on identifying methods to help children bridge the gap between dialect and MSA. Research pointed to exposure to MSA as an important factor in helping children navigate the differences between their own dialect of Arabic and MSA. Studies that exposed children at the preschool or kindergarten level to spoken MSA through listening to stories had a significant, positive effect on the development of reading abilities.

In essence, educators must help children navigate the differences between their dialects and MSA, as they transition into school, so that they become proficient readers and writers of MSA. At present it seems that strategies to help children move from dialect to MSA are done more on an ad hoc than a systematic basis in many countries of the Arab world.

Iraqi (1990) found positive results relative to preschool children's ability to understand and use (orally) MSA if they were exposed to it in preschool. Feitelson, Goldstein, Iraqi, and Share (1993) subsequently examined whether listening to stories in *fus-ha* would impact kindergarten students' emerging literacy skills; 258 children participated in the study, 49 of whom were in a control group following a standard ministry curriculum. In the experimental group, teachers read stories to the children in *fus-ha* daily for five months but otherwise followed the curriculum. The experimental classes performed significantly better on listening comprehension tasks in literary Arabic and scored higher on two measures of the active use of language, using a richer vocabulary and more clauses in recounting the stories using pictures that they organized into a sequence that matched the story sequences they heard over the course of the five months.

Interestingly, in the study described just above, the teachers in the experimental classes initially objected to the intervention as the stories did not have pictures, and since they were in *fus-ha*, teachers felt the children would not understand them and become bored. The researchers reported

that by the end of the five months, the teacher attitudes had changed dramatically as they saw that the children's language ability and comprehension were improving (Feitelson et al., 1993).

Abu-Rabia (2000) looked at the impact of early exposure to MSA on reading comprehension at the ends of grade 1 and grade 2 for children exposed to "literary" Arabic consistently in preschool. The study looked at 282 children; 144 were in the experimental group and 138 in the control group. The 144 were exposed to MSA throughout their preschool experience; the 138 were not. Reading comprehension tests on these children subsequently showed that those in the experimental group performed significantly better. These results speak to the importance of listening comprehension and its relation to reading comprehension. The EGRA results presented above indicate the correlation as well, which suggests that we need to improve pupils' ability to comprehend spoken MSA in order to mitigate or overcome the effects of the diglossia.

Levin and colleagues (2008) studied Israeli Palestinian kindergartners of lower socioeconomic status to determine their letter naming skills, alphabetic awareness, and phonological awareness; 145 children participated in the study, which consisted of a control group and an experimental group. Researchers tested 30 randomly selected pupils from each group and found that those who were exposed to literacy-related activities (using MSA) for 25 minutes a day outperformed their peers in the control group in naming letters and identifying their sounds. In particular, they were able to use standard MSA letter names, which indicated that "exposure to the standard names of letters enhanced alphabetic awareness using these names" (Levin et al., 2008, p. 424).

On the 2006 PIRLS, Hebrew-speaking Israelis averaged a score of 528 (which is over the midpoint) while Israeli Arabic speakers averaged 428. In her 2008 study on the reasons for this difference, Zuzovsky (2010a) found that the achievement gap in reading between Arabic- and Hebrew-speaking pupils on the PIRLS test remained high (with some decrease) even after she controlled for socioeconomic variables. In contrast, when she looked at the TIMSS gap between Arabic- and Hebrew-speaking students, controlling for socioeconomic factors, she found it practically vanished. She attributes this difference to the problem of diglossia in Arabic, which Hebrew students do not contend with (Zuzovsky, 2010b).

In her 2010 follow-on study, Zuzovsky tested the effectiveness of certain instructional variables in mitigating the challenges Arabic pupils face due to diglossia. Using the US National Reading Panel Report and the "What Works Clearinghouse" of the US Department of Education, she tested a group of 14 instructional variables cited as important to improving reading. Using the 2006 PIRLS data and questionnaires from pupils who took the PIRLS and their parents and teachers, descriptive statistics, and multilevel regression analyses she was able to look at, she found "significant interaction effects between the variables we expected to positively affect reading attainment and schools' ethnic affiliation [Arabic or Hebrew speaking]..." (Zuzovsky, 2010a, p. 10).

At the level of descriptive statistics, the following activities correlated highly with achievement in Arabic speaking schools.

<u>Variable</u>	<u>Arabic Schools</u> Correlation with achievement
Played alphabet games with parents	.37*
Wrote words with parents	.48**
Teacher reads aloud in class	.48**
Students do independent reading in class	.44**
Students asked to read as part of their homework	.58**
Teacher asks students to explain their understanding	.36**
*p<.05, **p<.01	

Correlations were generally not significant for Hebrew-speaking schools. Further, the regression analyses showed that 6 variables of the 14 were significantly associated with the achievement of pupils in the Arabic speaking schools. These were: playing alphabet games with children (at home); writing letters or words with children (at home); reading aloud to students in class, students listening to someone reading at home; students talking to other students about what s/he read; and students reading as part of homework.

Zuzovsky said, “Although it is hard to infer causality...the evidence suggests that these types of activities are needed in learning to read in a diglossic situation” (Zuzovsky, 2010, p. 28). Her conclusions was that, “The most effective variables for Arabic-speaking students appear to be those indicating early home literacy activities that foster phonemic awareness and letter sound recognition. Among the school literacy activities, repeated listening to the sounds of written Arabic, and being actively engaged in reading text and gradually in more challenging tasks, are promising school practices” (Zuzovsky, 2010, p. 5).

Similarly, Aram, Korat, and Hussunah-Arafat (2013) carried out a longitudinal study with 88 kindergarteners/first graders to look at the impact of home literacy activities on literacy development among these Arabic native speakers by the end of first grade. They found that joint or book reading (between mother and child) and joint writing while the children were in kindergarten were both significant contributors to children’s literacy achievements in first grade after controlling for socioeconomic factors. This supports other studies that indicate MSA exposure, story reading, and writing are beneficial to young children learning to read.

The above studies point to the efficacy of exposing children to MSA before they enter primary school. Many researchers cite the fact that this is not done because there is a generally accepted belief that the language is too hard for little children, but these findings suggest that these assumptions be reconsidered.

Of note: the literature did not suggest that teaching children to read or write in colloquial Arabic would or could be a solution to addressing some of the challenges emanating from diglossia in the Arab world. This topic might deserve some exploration, based on the well documented effectiveness of (and thus preference for) learning to read in the mother tongue. In the literature review there were no studies that looked directly at either the feasibility or the effectiveness of teaching children to read in dialect as opposed to MSA in the early grades of school. These studies may not have been done because the likelihood of decision makers’ endorsing the use of

colloquial Arabic as an official language of instruction in formal schools is slim; it would be politically unpalatable for a variety of reasons across the Arabic-speaking world and likely not popular with parents either. Hence, looking at how children learn MSA and how they make that linguistic transition in school has likely been a more practical and useful lens for researchers to use in exploring how to improve reading in Arabic. The preponderance of scholarly research seems to fall into this latter domain. Still, exploring the impact of learning to read in Arabic dialects might be a fruitful area for research and ultimately for improvement of early-grade reading proficiency in the region.

Research Question 14: To the extent that the existing literature allows, which grammatical and syntactical features are similar and different between MSA and dialects of each country (e.g., conjugations, pronouns, popular use of verbs and nouns)?

Word roots are generally the same. It is case endings that are left off in dialect for the most part. There are differences in pronunciation of words between MSA and dialect. There are often also different prefix and suffix signifiers for verbs between dialect and MSA. In many cases vocabulary is different. Dialect usually has a simpler syntax, although most sentences begin with a verb in both MSA and dialect. There are also differences between dialects; a Moroccan speaker will most likely not be understood by a Yemeni speaker, if s/he is speaking in dialect. For example, the prefix to signal a future tense in MSA is “sawfa”; in colloquial Egyptian it is “sa” and in Moroccan Arabic it is “ghadi” which is very different. Ghadi derives from the word used for tomorrow in MSA, which is ghadan. If this were pointed out to the Yemeni listener s/he would probably be able to pick up that pattern and understand when the future tense is used. However, pronunciation and inflection differ some as well, which generally makes dialects from one region of the Arabic speaking world less intelligible to those from another part of the world. For example, Algerians have an easier time understanding Moroccans than do people from the Gulf area; someone speaking a Syrian dialect to someone with minimal education in Tunisia would probably not be easily understood. Educated Arabic speakers are generally able to distinguish what is dialect from what is MSA and modify their usage and pronunciation more toward MSA when they are dealing with other Arabic speakers.

2. Vowelings

Arabic is a language of 28 letters (or 29 if you count the *hamza*, a glottal stop usually represented by a diacritical mark). It is written from right to left, and the letters take different forms based on their position within the word—initial, medial, or terminal, but letter shape is generally consistent and therefore recognizable (Abd El-Minam, 1987). Many letters are similar in shape, differentiated only by the number of dots they carry; dots are part of the orthography of 15 letters, 10 of which have one dot (above or below), 3 of which have two dots (above or below), and two of which have three dots (above) (Abu-Rabia, 2012). There are three long vowels among the 28 letters; the rest are consonants. **Table 9** shows the Arabic consonants and long vowels in their isolated, initial, medial, and final positions.

Semitic scripts have customarily not used vowel markers. At one point long ago, even the dots on Arabic letters were not used. Because the early Arabian Peninsula was an oral culture primarily, even texts such as the Qur'an were preserved through memorization for many years before being written down. The Qur'an was eventually written down with vocalization marks (as they were invented) to ensure both correct pronunciation and the accurate transmission from generation to generation of the original revelation Mohammed received. A final and accepted rendering of the written Qur'an that included the vowel markers was not completed until the end of the 8th century. Arabic, along with Persian and Urdu, which also use Arabic script, continue the age-old habit of not using short vowel markings in writing. Thus, in order to read anything in Arabic, besides the Qur'an, children must learn to read unvoweled text to succeed in school.





Table 9: Arabic consonants and long vowels

Letter Name	Letter Sound	Isolated	Initial	Medial	Final
alif	various, including /a:/	ا	ا	ا	ا
bā'	/b/	ب	ب	ب	ب
tā'	/t/	ت	ت	ت	ت
thā'	/θ/	ث	ث	ث	ث
jīm	[d̤ʒ] ~ [ʒ] ~ [q]	ج	ج	ج	ج
ḥā'	/ħ/	ح	ح	ح	ح
khā'	/x/	خ	خ	خ	خ
dāl	/d/	د	د	د	د
dhal	/ð/	ذ	ذ	ذ	ذ
rā'	/r/	ر	ر	ر	ر
zayn / zāy	/z/	ز	ز	ز	ز
sīn	/s/	س	س	س	س
shin	/ʃ/	ش	ش	ش	ش
ṣād	/sˤ/	ص	ص	ص	ص
ḍād	/dˤ/	ض	ض	ض	ض
ṭā'	/tˤ/	ط	ط	ط	ط
ẓā'	[ðˤ] ~ [zˤ]	ظ	ظ	ظ	ظ
'ayn	/ʕ/	ع	ع	ع	ع
ghayn	/ɣ/	غ	غ	غ	غ
fā'	/f/	ف	ف	ف	ف
qāf	/q/	ق	ق	ق	ق
kāf	/k/	ك	ك	ك	ك
lām	/l/	ل	ل	ل	ل
mīm	/m/	م	م	م	م
nūn	/n/	ن	ن	ن	ن
hā'	/h/	ه	ه	ه	ه
wāw	/w/, /u:/, /aw/	و	و	و	و
yā'	/j/, /i:/, /aj/	ي	ي	ي	ي

Source: RTI International

Table 10 below (Fadi, 1999) takes the letter *sīn* (spelled “seen” which is also accurate in terms of how the letter name is pronounced), which is equivalent to the letter “s” in English and puts the *tashkeel* or diacritical marks above or below the letter. The diacritical marks are called ***fat-ha*** (short “a” sound in English), ***dhamma*** (short “u” sound in English), ***kasra*** (short “i” sound in English), and ***sukoon*** (signals that the consonant has no short vowel). There are other diacritical marks (for example doubling the first three marks, the *hamza*), but these three plus *sukoon* are the basic short vowels.

Table 10: The letter *sīn*

The Mark's Name	Applied to the letter (Seen)	Pronounced as..
Fat-ha		Sa
Dhamma		Su
Kas-ra		Si
Sukoon		s

Source: Fadi, S. (1999), Table 5.

Most Arabic texts are not written with the short vowel diacritical marks or vocalizing letters — they are unvocalized or unvoweled. In general, vocalization is retained in school texts through the third or fourth grade. The elimination of the diacritical marks creates a challenge for the Arabic reader as he or she progresses through school. It also suggests that 1) an understanding of how children transition from vocalized to unvocalized text successfully is of paramount importance, and 2) it is critical to understand the strategies that children use to process and make sense of unvocalized text. In other words, the explicitness of instructional strategies that help readers transition into unvocalized text is a line of inquiry that needs more study. When text is vocalized, Arabic has what is called a transparent or shallow orthography. With the short vowel marks in place, one can identify and pronounce words correctly. Without the vowel marks in place, readers are forced to rely primarily on word morphology, syntax, and context within the sentence to determine certain words (Abu-Rabia, 1997; Taouka & Coltheart, 2004).

At the fourth or fifth grade we withdraw short vowels from the text...these are facilitators for reading...I wish every word given to students was voweled. It is very important to keep them on the letters [so they learn to read well]” (interview with regional reading expert).

This opinion derives from Arabic being replete with homographs, or words that, unvoweled, are spelled the same in terms of their consonant patterns (Abu-Rabia, 1997; Abu-Rabia, 2002; Abu-Rabia & Awwad, 2004). Two examples of homographs are below (**Table 11**). The first two words on the left—write and books—are written with the same three letters: kāf, bā’, and tā’. Without the diacritical marks, one could not distinguish them except for the context of the sentence. The same is true for the next set of words on the right—gold and went are both written with the letters dhal, hā’, and bā’. It is the last diacritical mark that distinguishes one from the other for the reader when they are read in isolation.

Table 11: Arabic homographs

كُتِبَ	كُتِبَ	ذَهَبَ	ذَهَبَ
↓	↓	↓	↓
Write	Books	Gold	Went

Source: Fadi (1999), Table 6.

Vowels are important because they unlock word phonology for readers and thus lead to correct word identification and pronunciation: “Clearly, the significant effect of vowels is the result of their important provision of phonological information though reading” (Abu-Rabia, 2002, p. 303). Several rigorous studies over the past 15 years bear out the significance of the role of vocalized text on early reading achievement. In an early study on the impact of vocalization on reading accuracy (Abu-Rabia & Siegel, 1995), 40 eighth-grade Arab pupils read vocalized and unvocalized words in isolation and in a context. Reading accuracy was significantly improved when readers (both poor and strong) read the vocalized text, although skilled readers showed greater improvement. Another study (Abu-Rabia, 1995) on 143 Arab children (8–11 years old) learning to read in Arabic demonstrated that word recognition was highly correlated with phonological skills, semantic processing, syntactic knowledge, and short-term memory. The findings unambiguously pointed to phonological skills, especially knowledge of grapheme–phoneme conversion rules, as a significant factor of reading in Arabic because they facilitate the rapid decoding of words. Struggling readers showed lower phonological and semantic processing levels than the stronger readers.

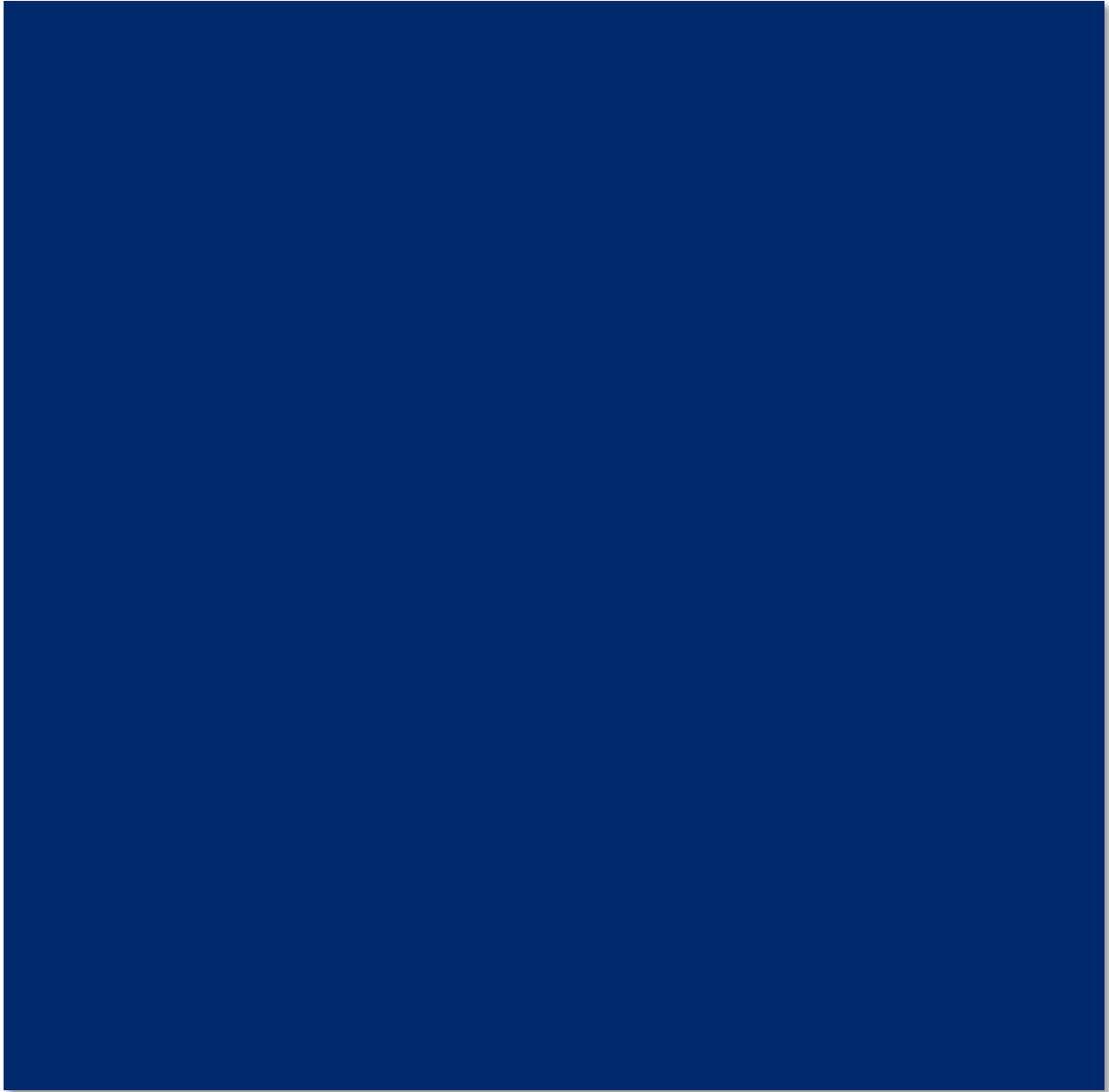
Abu-Rabia (1997) subsequently looked at the impact of vowels (vocalization) and context on the reading accuracy of 109 poor and skilled native Arabic readers in the 10th grade. He used narrative stories and newspaper articles, having the subjects read aloud vocalized and

unvocalized lists of words as well as paragraphs. This research demonstrated that vocalization and context were key variables that aided word recognition and reading accuracy for both poor and skilled readers, no matter which kind of text (story or news article) the subjects were reading. Abu-Rabia concluded that vocalized materials provided additional phonological information to readers that aided in word recognition—and helped readers avoid homographic confusion (i.e., where two different words look exactly alike when they are unvocalized)—as well as reading accuracy and comprehension for both poor and skilled readers.

Abu-Rabia (2001) looked at the impact of vocalization and context on the reading accuracy and comprehension of adult native Arabic speakers (22–30 years old) in both Arabic and Hebrew, which was their second language. (Hebrew also utilizes a system of vocalization.) All of the subjects were skilled readers in Arabic. The results showed that vocalized text in both languages was read and comprehended significantly better than unvocalized text. In addition, accuracy was significantly improved by sentence context in cases where the text was unvoweled. With vocalized text, readers did not have to rely on context to distinguish homographic words. Abu-Rabia also concluded in turn that consonantal patterns of words (i.e., word morphology and visual-orthographic elements) were important for reading unvocalized material with comprehension.

In 2007, Abu-Rabia examined the impact of several Arabic reading measures—morphology, the presence of short vowels, spelling, reading isolated words, and reading comprehension—among normal and dyslexic readers in grades 3, 6, 9, and 12. In this study, he found that orthographic factors (morphology and spelling) were stronger predictors for both reading comprehension and reading isolated words across all grades. In other words, “knowledge of the structure of a word was the best facilitator of reading, rather than active use of short vowelization” (Abu-Rabia, 2007, p. 103). This contradicted some of his earlier research, which he acknowledged. He suggested that this might be attributable to the types of tasks he asked readers to do in previous studies (recognize/use short vowels in reading) in contrast to what they were asked to do in this study (actually vocalize words and text themselves). The latter was a much more difficult job, one which called for more grammatical and syntactical knowledge of MSA.

Finally, in 2012, Abu-Rabia examined reading accuracy among 59 skilled adult readers (native Arabic speaker) in reading morphologically complex words under six different reading conditions. His results pointed to the importance of both knowledge of word roots and vocalization as key factors in reading accuracy for this group. Overall, findings over the last 15 years suggest that with emergent and struggling readers, providing diacritical marks has a positive impact on reading fluency and comprehension.





B. Skills and Knowledge Necessary to Read in Arabic

In this section we summarize the major discussions in the scholarly literature on what variables are most critical for readers to read unvoweled text fluently and with comprehension. Many studies across the literature identify three variables as critical to learning to read in Arabic: phonological awareness, morphological knowledge, and sentence context.

Phonology, morphology, and sentence context (emphasis added) are considered key variables in explaining the reading process in Arabic orthography. Phonology (in the form of short vowels) affects reading accuracy as well as reading comprehension, regardless of reading level, age, material, and reading conditions. Initial visual-orthographic processing identifies the morphology (i.e., the triliteral/quadrilateral roots of Arabic words), which then enables access to the mental lexicon. Sentence context is also essential in reading Arabic orthography regardless of the reader's level, age, material, and reading condition. (Abu-Rabia, 2012, p. 491)

1. Phonological Awareness

Phonological awareness is understood as a person's awareness of the sound structure of spoken words. It has proven to be a consistent predictor of later reading ability in children in many languages. In Arabic phonological awareness is also a key variable in reading acquisition and a critical skill that children must master to be readers of both vocalized and unvocalized text. Literature citing evidence on the role of phonological awareness in learning to read in Arabic is discussed below.

Both Abdel Bari (2011) and Halebah (2013) stated that phonological awareness is one of the important introductory steps to reading in general and reading in Arabic specifically. Since Arabic is a phonetically written language, being able to pronounce letter sounds is one of the strategies that helps new readers decode the words they do not recognize by sight. This phonetic approach (*tariqa al sawtiya*) is considered recent in terms of teaching strategies, when compared to the "spelling way" (*tariqa al hijaiyah*) which was widely used in the 19th century (Abdel Bari, 2011) and is still used. The spelling approach relies more on teaching children the letter names, memorizing letters with short vowels, and recognizing whole words. It is not as focused on letter sounds as the phonetic approach.

Abu-Rabia, Share, and Mansour, in a 2003 study investigating word identification in Arabic and basic cognitive processes in reading-disabled (RD) and normal readers of the same age and younger normal readers who were the same level as the RD readers, stated that:

Phonological decoding ability is essential in the process of reading acquisition (Abu-Rabia, 1995, 2001; Jorm, 1979; Perfetti, 1985; Share, 1995). It is well established in the literature that measuring the pseudo-word reading is the benchmark test of children's phonological decoding skill (Abu-Rabia, 1995; Vellutino & Scanlon, 1987). Many studies have been conducted using pseudo-words as their phonological decoding measure among normal readers and reading-disabled (RD) children...*The difficulty of these RD*

children in reading pseudowords seems to be the result of deficiencies in their basic phonological processing [emphasis added] (Abu-Rabia et al., 2003, p. 426).

In their discussion of the results of this 2003 study Abu-Rabia and colleagues (2003) remarked,

In sum, the reading-disabled in Arabic generally showed similar characteristics to those reported in the literature: poor phonological processing, poor working memory skills, and poor syntactic skills. However, they tended to show strong visual-orthographic patterns of reading from an early age. Phonology seems to be extremely powerful, followed by morphology and visual memory. Syntax and working memory are also important, although they show less consistency. (p. 439)

In 2011, Taibah and Haynes carried out a cross-sectional study of the contributions of phonological processing—defined as phonological awareness (the capacity to reflect on the sound structure of spoken words), rapid naming (RAN; capacity to retrieve phonological codes stored in memory), and phonological memory (processing resource of limited capacity involved in the preservation of information)—to decoding and fluency skills in Arabic among 237 Arabic-speaking children in grades K-3 in Saudi Arabia (Taibah & Haynes, 2011). At each grade phonological processing skills correlated significantly with all reading skills at a range from moderate to high. Indeed, the study showed that readers lacking automaticity relied more on phonological awareness than rapid naming capacity or phonological memory. The predictive power of rapid naming increased in grades 2 and 3, and the predictive power of phonological awareness decreased in grade 2 although was still more powerful than RAN:

These findings are consistent with the view that fluency in the beginning grade levels relies on accuracy of decoding—a skill highly dependent on phonological awareness. In parallel, as children progress to second and third grades and develop decoding that is more automatic, the predictive power of RAN increases. (Taibah & Haynes, 2011, pp. 1036–1037)

In a 2012 study, Abu-Rabia posited that the phonological stage in reading is continuous even in proficient adult readers. A study of 59 skilled native Arabic readers found that:

roots facilitate reading accuracy in reading morphological complex words, with and without short vowelization; short vowelization aids the reading accuracy of morphological [sic] complex word; and, short vowelization also aids in the accurate reading of morphologically complex words in context compared to reading them without short vowelization...The significant effect of vowels on reading morphologically complex words among highly proficient adult readers means that the phonological stage in reading Arabic is a continuous stage that accompanies even highly skilled adult Arabic readers all their lives. Such a finding is divergent from results obtained from other orthographies; that phonology is an initial stage in reading and writing, and that for readers to become fluent, they should rely on their automatic lexical-visual-recognition of words, based on their rich orthographic mental lexicon (Abu-Rabia, 2012, p. 491).

In other words, phonological knowledge is a necessary step in mastering the language's orthography and building an "orthographic mental lexicon" (p. 491) as Abu-Rabia described it above. While rapid word naming increases as children get older and more proficient in reading and phonological awareness is not used as frequently in figuring out a word, in Arabic, due to the lack of short vowels, phonological awareness continues to be a necessary skill that is used. Hence, the literature concurred that readers in Arabic never move out of this stage, even as they develop and rely more heavily on rapid word naming skills and sentence context.

These findings demonstrate how critical it is for pupils to learn phonological awareness skills in the early years of their reading instruction. Without this step, they cannot decode, even with voweled text, and decoding is critical to develop reading fluency and automaticity.

Research Question 8: In what order should letters be taught in vowelized Arabic?

The order of teaching Arabic letters varies from one country to another. When examining Ministry of Education documents from curriculum departments in a selection of countries, one can see variation. For example, in Egypt teachers are expected to teach letters in alphabetical order (alef, ba, ta, etc.). This is according to instructions on delivering the Arabic curriculum for grade 1 for the academic year (2013–2014) (MOE Egypt, 2013). The letters are also being introduced in alphabetical order, as one would expect, in the Arabic textbook (Faraj & Gorab, 2012).

In Yemen, according to the Arabic teacher's guide book for grade 1, published in 2012, the letters are taught in groups starting with the long vowels and the more frequently used letters, including those that are easy to pronounce (long a, long u, long i, s, d, r) (أ،و،ي،س،د،ر). Then the rest of the letters are taught in groups, as follows.

ظ،خ،ه،ء،ي،و	ج،غ،ض،ث	ح،ع،ص،ق،ط	ش،ذ،ز،ك،ت	م،ن،ل،ف،ب
Hardest: /w/, /j/ hamza, ta marbuta, /x/ and [ð ^h] ~ [z ^h]	/θ/, /d ^h /, /y/ /dz/	/t ^h /, /f/, /s ^h /, /ʃ/, /h/	/t/, /k/, /z/, /ð/, /sh/	Easiest: /b/, /f/, /l/, /n/, /m/

(Ali, et al., 2012).

Likewise, the grade 1 Arabic book guide for the teacher in Saudi Arabia (Al Saidi, et al., 2005 [1426AH]) introduces letters based on their difficulty, starting with the easier groups to pronounce (Al Saidi et al. 2005,, p.12). Hence letters are divided and introduced in the following order.

ه،ث،غ،ظ	ض،ع،ك،خ،ي،ذ	أ،ط،ز،و،ج،ش	ص،ف،س،ق،ت،ح	م،ب،ل،د،ن،ر
Hardest: [ð ^h] ~ [z ^h], /y/, /θ/, ta marbuta	/ð/, /j/, /x/, /k/, /ʃ/, /d ^h /,	/sh/, /dz/, /w/, /z/, /t ^h /, /a:/	/h/, /t/, /q/, /f/, /s ^h /,	Easiest: /r/, /n/, /d/ /l/, /b/, and /m/

While there are some letters in common in each group above, there are also many differences in the suggested orders between Saudi Arabia and Yemen, even though both are using an “easiest to hardest” ordering. For example, in Yemen /ð/ is on the easier side of the scale while in Saudi Arabia it is on the more difficult end of the scale. While the Saudi and Yemeni dialects are not as far apart as, say, the Saudi and the Algerian dialects, differences in the preferred order of letter presentation might relate back to sounds commonly occurring in the dialect.

The Lebanese Ministry of Education (Ministry of Education and Higher Education, Lebanon, 2013) states that the order in which letters are taught should be based on the following four principles:

1. Frequency of letters in learners' language
2. Letters that are easier to pronounce and write
3. Combining some letters in meaningful words
4. Letters that are less frequent and harder to write

Lebanon has a diversity of private schools that educate over half of the school-aged children in the country. Hence, the ministry puts forward the principles, but ultimately offers teachers or schools the flexibility to decide on the order for teaching the letters. On its website, the ministry has posted suggestions of three different groupings that teachers might use to teach the letters. The first one below is based on the frequency of the letter in the language.

م - س - و - ز - ب - د - ر in addition to the short vowels (*harakat*) and long vowels

/m/, /s/, /w/, /z/, /b/, /d/ and /r/, and long vowels *alif*, *wāw*, and *yā'* plus *fat-ha*, *dhamma*, *kasra*, and *sukoon*

However, the ministry offers an alternative grouping, which includes some of the letters above and others deemed easy to pronounce and write, as follows.

ح - ط - ص - ش - س - و - د - ر - ز in addition to the short vowels (*harakat*) and long vowels

/h/, /t/, /s/, /sh/, /s/, /w/, /d/, /r/, /z/ and long vowels *alif*, *wāw*, and *yā'* as well as *fat-ha*, *dhamma*, *kasra* and *sukoon*

The ministry also gives another example of letters grouped in two different ways: 1) by similarity of letter shape in the written form, and 2) by the letter's frequency in common children's words, as seen below.

ن - ت - ث - ف - ق - ك - ل - ح - د - خ - ع - غ	or	ب - ت - ل - أ - م - ن - ه - ع
Letters of similar shapes		Most frequently occurring
/y/, /ʕ/, /x/, /d/, /h/, /l/, /k/, /q/, /f/, /θ/, /t/, /n/		/ʕ/, /h/, /n/, /m/, /a:/, /l/, /t/, /b/

Finally, the third group is based on the least frequently used letters in children's language and/or the most difficult in writing.¹

أ - ذ - ي - ث - ط - ظ - ه - ص - ض	Or	ف - ق - ك - غ - ض - ذ - ظ - ث
Least frequently occurring		Most difficult to write
/dʕ/, /sʕ/, /h/, [ðʕ] ~ [zʕ], /tʕ/, /θ/, /j/, /ð/, /a:/		/θ/, [ðʕ] ~ [zʕ], /ð/, /dʕ/, /y/, /k/, /q/, /f/

(Ministry of Education and Higher Education, Lebanon, 2013)

In sum, there seems to be more support for purposefully ordering the letters in terms of frequency and/or difficulty when teaching them to children. This aligns with what is considered best practice in many countries including the US. Amongst the experts we spoke to, opinions were far from unanimous on this question, but teaching the letters in order of difficulty and usage was generally more preferred.

2. Morphology

Arabic morphology is complex but very useful in the reading process, especially regarding unvocalized text. Morphology refers to the study of the structure of words. A morpheme is the smallest unit of language that carries meaning. For example, in English, the “s” we add to words to signal plurality is a morpheme; suffixes, infixes, and prefixes as well as roots all constitute morphemes.

Derivational Arabic morphology refers to word roots—usually three or four consonants—that are vowelized (with long or short vowels) in different ways to form different words. Inflectional morphology refers to pre-fixes, suffixes, and infixes added to these roots. Research suggests that

children need to develop both derivational and inflectional morphological awareness to become proficient readers in Arabic.

One of the key words for reading accuracy of morphological [sic] complex words in Arabic orthography is the **root** (emphasis added) for initial lexical access...morphological knowledge and short vowelization are the key variables in the process of reading accuracy even among adult highly skilled readers. (Abu-Rabia, 2012, p. 492)

Derivational morphology has two types of word patterns: verbal word patterns and minimal word patterns. There are 15 very frequent verbal word patterns in Arabic. There are nine minimal word patterns. There is semantic consistency in all these different minimal word patterns (Bentin & Frost, 1995), some of which are more common than others....In contrast to the derivational process, in which the basic constituents are roots and word patterns, the inflectional morphological system in Arabic is constructed by attaching prefixes and suffixes to real words. The system of inflectional morphology of verbs is systematic and considers person, number, gender and time. The inflectional morphological system of nouns considers gender, masculine/feminine; number, singular/plural, masculine and feminine; and pairs, masculine/feminine. (Abu-Rabia, 2012, p. 487)

Without vocalization there are many homographs in Arabic, as described above. Hence the root consonants and word patterns, including the prefixes, suffixes, and infixes added to words, offer critical clues as to the identity of a word when it is not vocalized. Saiegh-Haddad and Geva (2008) explained the importance of being able to recognize word morphology for emergent readers, saying that:

...word identification for unvoweled Arabic cannot be successfully accomplished unless the missing phonological information has been recovered by the reader. One important source of knowledge that helps readers restore the missing phonological information is the word's morphological structure, in particular recognition of the word-pattern ...As most of the missing short vowels may be reliably recovered when the reader has identified the word-pattern, becoming aware of the word-pattern should assist readers in their decoding of unvoweled words. (Saiegh-Haddad and Geva, 2008, p. 485)

Mahfoudhi et al. (2010) examined the role of morphological awareness in comparison to phonological awareness on normal and learning disabled readers in Kuwait to see how these variables impacted pupils' comprehension. The study included 166 mainstream children from grades 3, 4, 5, and 6 and 86 learning disabled children from the same grades at a special school for children with learning challenges. Both schools were Kuwaiti government schools and there were equal numbers of boys and girls.

Indeed, these data suggest that in comparison with each other, phonological skills and morphological ability explain unique, independent variability in comprehension levels in this mainstream Arabic-speaking cohort of children. Those with good phonological and good morphological skills are more likely to show better reading comprehension levels (Mahfoudhi et al., 2010, pp. 509–510).

Abu-Rabia further elaborated on the kind of important information a skilled reader derives from Arabic word morphology:

Most verbs and the majority of nouns are constructed out of roots of three consonants, occasionally two or four. Roots are built in phonological patterns to create specific words; these patterns may be a series of consonants or a series of vowels and consonants....Different morphemes convey different types of information: the root conveys more information than the phonological pattern because it provides the core meaning of the word (Abu-Rabia, 2001, 2002), whereas the word patterns usually convey information on word class. (p. 487)

... roots facilitate reading accuracy, since these roots trigger orthographic lexical information that was retrieved directly to assist in the identification of morphologically complex Arabic words. This is because roots are semantic autonomous entities. (p. 490)

...In Arabic, and because of the complexity of the Arabic morphology, the semantics of the root morpheme as a semantic entity is helpful and accessible for the initial lexical access, initial understanding and later connected [sic] the rest of the affixes (morphemes) to construct the exact phonological representation (pattern). (p. 491) Earlier he had pointed out that "Many studies have been emerging in the last [sic] few years focusing on the contributions of morphology to reading as an additional factor to phonology... There is clear evidence of a relationship between morphological awareness and reading in the early stages of reading" (Abu-Rabia, 2012, p. 486).

However, Abu-Rabia also noted that the role of morphological awareness has not been as well examined in orthographies such as Arabic.

Morphological awareness, defined as children's "conscious awareness of the morphological structure of words and their ability to reflect on and manipulate that structure" (Carlisle, 1995, p. 194), provides a clue to the phonological representation of complex words, as well as to their meaning. Despite extensive theoretical treatment and ample empirical evidence in support of a morphemic representational level in the mental lexicon (Caramazza, Laudanna & Romani, 1988; Marslen-Wilson, Tyler, Waksler & Older, 1994; Taft, 1994), the relevance of morphological awareness to printed word decoding has been largely ignored (Mann, 2000). (Abu-Rabia, 2012, p. 486)

Mahfoudhi et al. made a similar suggestion, saying that:

...one potential role might be the use of morphological unpacking strategies to support word identification and the determination of meaning. For example, the root can be used to support the identification of the item within a word lexicon and, thereby, determine word-level meaning. (Mahfoudhi et al.)

These are clearly important, evidence-based observations, and it is clear that morphological skills must be cultivated and taught in order to raise reading levels in Arabic-speaking countries.

3. Sentence Context

Word patterns in Arabic seem to be taught most frequently through grammar. However, given the research on the impact of morphology on reading in Arabic, pedagogues might consider ways to facilitate increased morphological awareness, both inflectional and derivational, through guided lesson plans for teachers and worksheets, games, and puzzles for children, especially struggling readers, both within and outside of grammar classes.

Sentence context is an aid to both comprehension and decoding. Because Arabic has so many homographs and because most text is unvoweled, a reader can come upon a word in a sentence that could be one of several words. The context of the sentence—the position of the word (verbs often come at the beginning of a sentence)—and the other words around—give readers clues and

Research Question 17: What vocabulary or syntactical difficulties do pupils have in later years that may prevent the comprehension of more complex text?

Pupils who do not learn to recognize morphological clues struggle more. They are less able to deduce vocabulary based on root meanings, and this impinges on comprehension. For example, the root /d/ /r/ /s/ in Arabic can be the core of many words all having to do in some way with teaching, learning, lessons, etc. Recognizing the root, even in an unfamiliar word, helps the pupil connect the word to a family of meaning and thereby better infer its exact meaning with the help of context. It is also more difficult to identify a word's syntactical function in the sentence if one cannot recognize the suffix, prefix, and infix patterns common to Arabic.

make sure that pupils can sound out words and identify the root of a word to help them decode it. It is possible to help children become more aware of context clues and use them intentionally when they get stuck. These sorts of comprehension strategies would seem to be critically important in Arabic, especially for struggling readers, and explicitly teaching them could have a large impact on pupils' overall reading ability. Indeed, good readers make the transition from sounding words out to recognizing them; this is a necessary step in reading in Arabic, and helping children make that leap to relying more on sentence context and less on "*tashkeel*" is critical.

Abdel Bari (2011) explained that using a "sentence approach" to reading instruction helps the beginning reader decode words and sounds in a holistic way (in a context), which he suggested is more relevant to how the brain functions generally. Likewise, Halebah also asserted that this way is more relevant to learners' natural inclination to learn from their environment, since they can figure out clues from the context that will lead them to successful reading. Certainly with unvowled text, context is an indispensable tool (Halebah, 2013).

Also related to the issue of context, Abu-Rabia made an interesting point when he noted that silent reading skills do not demand the same skills as reading aloud in Arabic. When reading silently one can skip, so to speak, the formal endings that one does not use in daily speech and still get the meaning of the sentence: "Reading accuracy in Arabic requires vowelizing word

Taouka and Coltheart (2004) studied the acquisition of reading skills in Arabic of children in grades 3, 4, and 6 in Australia. These children were Lebanese Australians studying both Arabic and English. As part of their larger project, the researchers looked at vowelizing and the role of diacritics in the reading process. The researchers found that "as age or level of fluency increases, readers **rely more on sentence context and less on word-final vowels** [emphasis added] to identify the meaning, grammatical function and pronunciation of words" (p. 51).

endings according to their grammatical function in the sentence, which requires advanced phonological and syntactical ability" (Abu-Rabia, 2001). He elaborated on this statement in subsequent research: "Silent-reading comprehension is less demanding, because the reader can rely on orthography, morphology, and other resources" (Abu-Rabia, 2002). When reading aloud, one has to include the proper endings based on the word's function in the sentence; sometimes these endings are indicated by long vowels and consonants but sometimes only by diacritical markings (which are usually not there on a written text). With silent reading, pupils have the chance to "unpack" the text, remark on the clues in the sentence, and then read it aloud with more accuracy. Some of the classroom data we cite below indicated that pupils in many of the countries in this study had a very small amount of class time for independent reading; more silent reading time might strengthen their proficiency in reading unvowled text aloud.

IV. International Development Research on School Environment, Instruction, and Parental Involvement

Two of the five countries that are the subject of this study as well as others in the region have implemented projects to improve reading outcomes (Egypt and Yemen). Governments have also launched internal initiatives and have participated with various donors (including bi-lateral, multilateral, private sector entities, and foundations) to implement targeted projects to improve early grade reading and writing across the region.

A common donor requirement is to track the project outcomes and impact. Thus, many of these projects over the past decade or so form a rich archive of information on instructional quality and methods, the availability of books and resources, school environment and leadership, and the level and type of parental and community engagement to support reading.

As mentioned in the introduction, the explicit focus on funding and implementing reading support projects is relatively recent. Many projects that are explicitly focused on improving reading and writing are getting started or have only been running for a couple of years. While many projects over the years have collected excellent information on teaching and learning across subjects or across core subjects like language, math, and science, fewer have managed to assemble a comprehensive data set on literacy practices relative to these four areas of interest:

- Explicit instruction in reading;
- Availability of books and other reading resources;
- School environment and leadership (particularly related to literacy); and
- Community and parental engagement in supporting literacy.

Within the last five years, USAID has funded several studies in the MENA region that have included an EGRA administration and an EGMA (Early Grade Mathematics Assessment) administration, as well as a Snapshot of School Management Effectiveness (SSME).

The SSME data in particular provide relevant and insightful information on the state of teaching reading, the presence and quality of reading materials, school literacy leadership, and parental involvement in literacy promotion. Much of the data right now are descriptive, documenting (via rigorous, mostly qualitative methods) the state of practice in instruction, leadership, community engagement, etc. Triangulated with EGRA results, these data suggest classroom, school, and teaching practices or factors that correlate with higher reading scores. These studies therefore help us predict what interventions will more effectively spur literacy achievements.

Finally and in addition to these studies, it is important to note that there are some locally funded, promising initiatives going on in the Arab world that are evidence-based in their design around improving reading performance, such as the reading initiative at the Queen Rania Teachers Academy in Jordan and the work of the Arab Thought Foundation in Lebanon. Information on these initiatives is included in this section. They have baseline data, and over the next few years

they will have midline and endline data through which to document the impact of their innovations and approach and inform the larger education community in the MENA region.

This section examines classroom and school-based data on teaching reading to examine how teachers teach reading, and what resources are available in schools, in light of what the scholarly literature suggested are important elements of learning to read.

A. Reading as a Subject in the Curriculum

Information available from ministries of education in various countries suggests that reading is usually taught as a component of the Arabic language curriculum. That is to say, it is not taught as a separate subject apart from Arabic language studies. Children are thus learning formal Arabic (MSA) at the same time they are learning basic reading skills. And, it is important to remember that in some countries in the Arabic speaking world, Arabic is not the first language of all children. Morocco and Algeria have significant Berber populations and Iraq has a significant number of native Kurdish speakers, for example, further complicating the process of learning to read in Arabic.

Within the allotted hours for Arabic, which vary by country, there are various lesson subtopics.

United Arab Emirates: In the UAE, according to the Developed National Document for the Arabic Language curriculum from kindergarten to the end of secondary education “*الوثيقة الوطنية المطورة لمنهج مادة اللغة العربية*” (Ministry of Education, UAE, 2012), the Arabic curriculum is divided into two main parts:

- 1) Language and literature concepts: including syntax (grammar), orthography, and rhetoric; and
- 2) Skills: including reading, writing, listening, and speaking.

The reading skills for grade 1 students are further divided into three main categories:

- Word analysis, fluency, and vocabulary development: this includes phonemic awareness, recognizing short and long vowels, constructing rhyming words, constructing and deconstructing words with one or two syllabus (Ministry of Education, UAE, 2012, p. 78);
- Understanding; and
- Response to literature.

Lebanon: To look at another example, the Lebanese Arabic curriculum is divided into three parts:

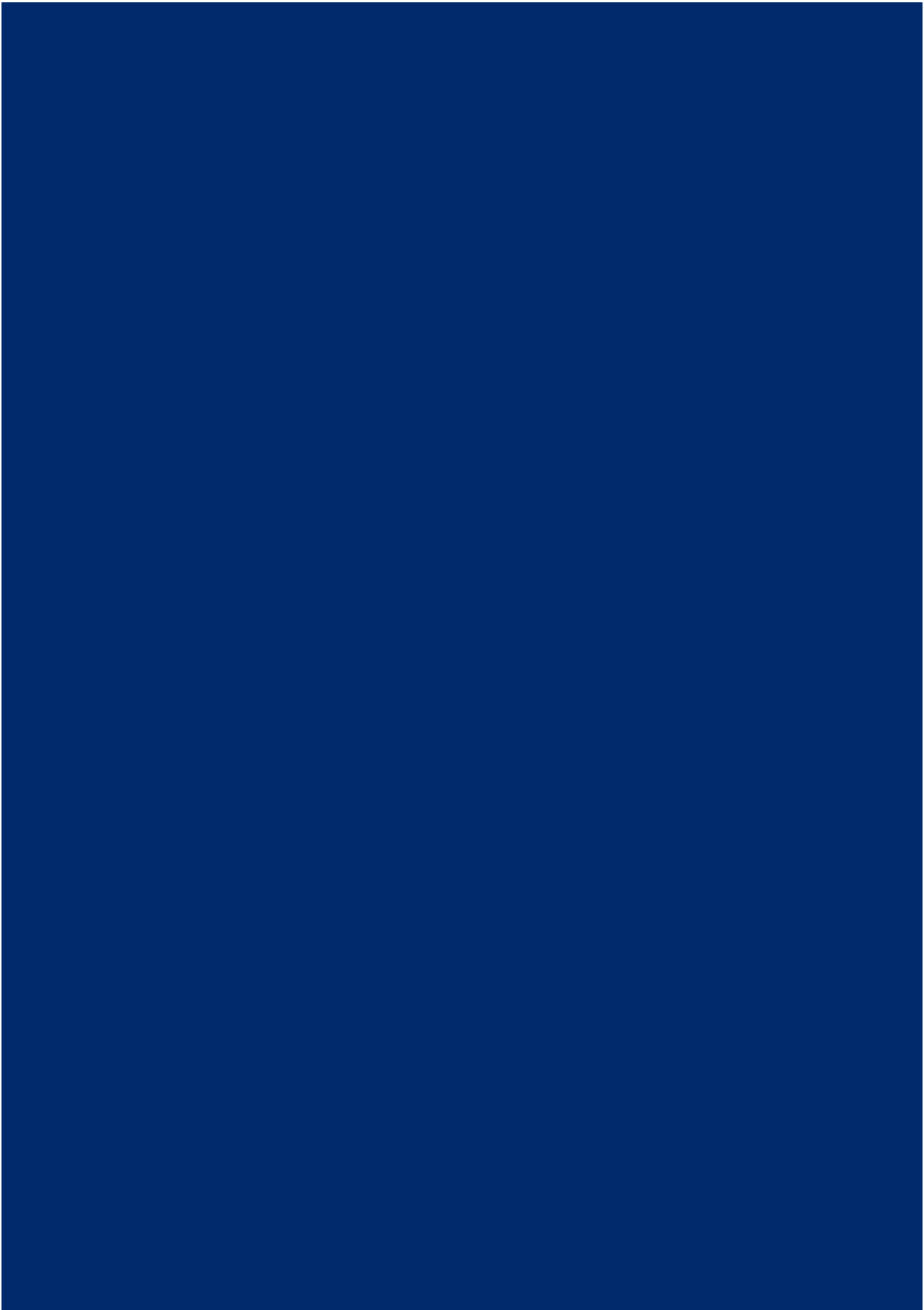
- 1) Reading, speaking, and poetry;
- 2) Verbal, written expression, and syntax; and
- 3) Orthography (copying texts—*nasekh* in Arabic), and Arabic calligraphy (Ministry of Education and Higher Education, Lebanon, 2013).

In both of the examples above, reading and writing are taught separately to some degree. The UAE curriculum summary suggests that the component parts of reading (phonological awareness, phonics, vocabulary, and comprehension) are explicitly taught. However, the two

major curricular categories (numbers 1 and 2) suggest that there is an element of “theory” in #1 and “practice” in #2, and it is not clear how they are sequenced. In Lebanon, it is hard to tell how “speaking” in item #1 is different from verbal expression in #2; or how written expression in #2 relates to #3, which is also somewhat writing-focused. The five components of reading are embedded in these elements somewhere, but from the information on the website it was not entirely clear where they fall.

Egypt: Egypt has focused on reforming the way reading is taught, and a much heavier focus on phonological awareness and phonics has been integrated into the early grades. For example, according to the ministry in Egypt (Ministry of Education, Egypt, 2013) the distribution of topics in the Arabic language curriculum for grade 1 is as follows: the first two months of the first semester (September and October) focus on language preparedness; this includes expressing oneself, recognition of sounds, and understanding relationships between similar and different things. In addition to that, the introduction to the first four alphabet letters (aleph to thaa) starts then as well (Ministry of Education, Egypt, 2013). However, by fourth grade, the Arabic curriculum covers not only reading, but grammar (syntax), orthography, and Arabic calligraphy. All these parts are taught through reading texts designed to illustrate the relevant grammatical, orthographic, or other lesson points (Ministry of Education, Egypt, 2013).

In sum, reading is included with various language skills that students study in the early grades. Hence, in most countries in the Arabic speaking world, the mechanics of reading are being taught in different spots under the umbrella Arabic language curriculum, which can make for a somewhat fragmented or confusing presentation for children. The few samples above illustrate that reforms in the way reading is taught will necessitate a revision of the existing plans of study or timetables in the early grades.



B. International Development Research on Reading Instruction in the Arab World

Almost all projects that focus on improving reading achievement have some instructional focus—that is to say some focus on training teachers to teach. Many international donor-financed projects heavily emphasize teaching phonological awareness and phonics with the goal of getting pupils' speed in oral reading up to what is considered a minimal level for comprehension. (In English this threshold has been more or less established at or above 60 words per minute. There does not yet seem to be a definitive opinion on what the wpm target rate for Arabic should be.)

The National Developed Document for the Arabic Curriculum from the UAE did not determine an explicit minimum number of words to be read per minute; however, the document did establish that first grade pupils should be able to write from memory a minimum of 150 words containing from two to six letters. This expectation was suggested as a key performance indicator (KPI) for grade 1 pupils in UAE. It is expected to increase to 200 words of three to eight letters by grade 2, and to 300 words of three to eight letters by grade 3 (Ministry of Education, UAE, 2012, pp. 68-69).

Two countries in the MENA region, Egypt and Yemen, provide the most useful data based on project experiences.

Egypt: The USAID-funded Egypt Early Grade Reading Program (2008 – 2013) is perhaps the earliest MENA region project with an explicit focus on improving reading. The project focused heavily on training teachers (in-service teachers) to improve the ways in which they taught early grade reading. The Ministry of Education, with assistance from GILO's Early Grade Reading Program, essentially "[d]esigned and enhanced instructional materials to use in conjunction with the Egyptian curriculum and textbooks" (Abouserie, 2010). Abouserie (2010) also found that teaching techniques did not include phonics, and pupils learned to read by memorizing text in their textbooks; there was a limited amount of independent reading; and teachers primarily used large group instruction and aimed at covering the curricular content, not at pupil mastery of reading, assertions borne out through some of our interviews. Some data indicated that early texts were too wordy for pupils and the font was too small. Many words were not reinforced after they were introduced (Abouserie, 2010). The first round of EGRA scores brought about concerted action on the part of the Ministry of Education to address reading issues. The enhanced instructional materials were complemented by a focus on teaching teachers to teach phonics and increasing reading and writing opportunities in school. Other proactive steps included a plan to increase access to pre-school education and a revision of the teacher professional development program to include skills needed for teaching early grade reading. Teachers learned to do phonemic awareness activities, teach letter sounds and letter names, and do pre-reading and post-reading activities and the like. The significant gains in the grade 2 pupil reading scores in Egypt suggest that these were positive steps to take and that they had an impact (Abouserie, 2010).

What emerged from this project was a very conscious adoption by the ministry of an approach that focused on teaching phonological awareness and phonics in early grade Arabic classrooms. The need for teacher training was apparent and the pupil post-test results provided evidence that

this approach, if taught competently, would yield results. The need for reading materials for early grade pupils was also highlighted forcefully. Heretofore, many early grade readers were very text-heavy for emerging readers, something that is now being addressed in Egypt.

Likewise, in 2008, the Education Reform Program (ERP) in Egypt began to focus on early grade reading, as this was a priority area for the Ministry of Education. The project organized and ran a series of reading camps (generally facilitated by teachers) during school breaks. These camps focused on active learning techniques, with an emphasis on phonological awareness and phonics (knowing sound/letter correspondences). They also touched off a focus on helping struggling readers through review and remedial activities that improved their performance. The reading camps, which the Egypt Early Grade Reading Program implemented as well, were intensive five-day “camps” where struggling readers received instruction via engaging formats including games and story hours and other highly interactive methods. The camps served pupils of mixed elementary levels in order to help pupils who missed the basic skills in first or second grade develop a foundation in reading.

This mode of organizing reading camps was replicated in Egypt by various local NGOs. What really emerged from this experience was a growing enthusiasm for and adoption of the “phonics” approach to teach reading and remediate struggling readers. While the camps included read-aloud activities such as teachers reading big books to pupils or pupils having some silent reading time, their focus was much more on the design and implementation of phonics activities.

These Egypt projects really did shine a light on the need for reform of how reading was taught in that country and for development of age-appropriate materials for emergent readers. The interviews from Egypt also highlight this. However, most of the discourse was around phonics; of the five components of reading, this one was emphasized most in the Egypt interview data. In Iraq, Jordan, and Morocco, data were collected on reading instruction as part of an SSME study carried out in conjunction with the EGRA research in those countries. There were some significant common trends across the target countries that are worth looking at in a bit more depth.

Yemen: Yemen implemented the full nine subtasks of the EGRA test in 2012. The EGRA results combined with basic demographic data collected on pupils, home, and family factors, which were then compared with pupils’ oral reading fluency scores through a series of statistical regression models, determined which pupil, home, or school factors predicted better reading performance. Three statistically significant factors emerged as contributing to reading performance: school attendance, practice time in school, and corrective feedback from teachers. Attendance relates to time on task. Pupils who are absent or late receive less instructional time. Allocating instructional time for pupils to practice reading also correlated positively with better scores across the EGRA subtasks as we discuss more fully below under “Books and Resources.” Finally, the more feedback teachers provided to pupils, the better their EGRA scores were; this was a trend we saw in the other three countries as well and an important point for teacher educators to take note of in the MENA region countries.

Further, in 2011, a USAID-funded assessment (Collins & Messaoud-Galusi, 2012) found that the average grade 4 student in **Yemen** was only able to correctly read six words per minute. Twenty-seven percent of these children were unable to read a single word. In response, the U.S. Government (USG) started the Yemen Early Grade Reading Approach (YEGRA) to pilot teacher-training and reading programs for children in 381 schools in Yemen (Embassy of United States, 2013). The USAID Community Livelihoods Project, working closely with the Ministry of Education technical experts, developed and implemented the YEGRA, a comprehensive initiative to improve the reading skills of children by strengthening teachers' capacity to teach reading and writing skills (Feierstein, 2013).

Following the development of the YEGRA curriculum, training materials, and teacher training program, the first phase of the YEGRA was implemented from November 2012 to May 2013 at 383 schools (the German donor agency GIZ is co-implementing YEGRA in 72 of these schools) in seven governorates. During the academic year, YEGRA training was successfully completed for almost 3,000 teachers and over 54,000 parents. The program reached a total of 93,116 students in grades 1-3 (Feierstein, 2013).

The findings indicate that YEGRA strengthened Arabic language instruction in the intervention schools on all EGRA measures, as evidenced by student reading outcomes. After only four months of improved reading instruction, students in the YEGRA schools made marked improvement in their reading performance. For example, on average, first and second grade students in the intervention schools identified 19.28 clspm, indicating progression in performance from 6.54 clspm. Similarly, on average, first and second graders in the intervention schools were able to read 9.34 cwpm, indicating progression in performance from 3.51 cwpm. However, the improvement in oral reading fluency did not enable students to read enough words to make noticeable progress on reading comprehension questions.

The results after four months showed improvement in reading-related activities practices by teachers as well, according to a forthcoming report from Creative Associates International. Below are two examples:

- 1) "Overall, intervention teachers were exhibiting more reading supportive teaching practices than teachers in control schools. The results revealed that there was more concentration on basic early reading skills in the intervention classrooms when compared to control classrooms by the end-line assessment. This contributed to the better results of students in the intervention schools where there is more concentration on the basic early reading skills with students in grade 1 and grade 2. Observation of the instructional content of the reading lessons at the end-line revealed that high percentages of teachers in the intervention classrooms practiced phonic-based methods, such as: guiding students to pronounce sounds of letters (91.8%), associate words with letters (81%), and blend letter sounds to form syllables and words (75.3%). The most common activity that teachers in the control classrooms practiced was guiding students to read sentences (80%), without much concentration on the basic reading skills." (Creative Associates)

- 2) “Similarly, when teachers were asked about the frequency of reading stories or reading from books to their students, the end-line assessment showed a marked increase in the percentage of intervention teachers who reported reading to students on a daily basis. The results show that (45.7%) of intervention teachers reported reading daily to their students by the end-line, rising from (3%) in the baseline. While the percentage of teachers reported reading to their students in the control schools was the same (3%) in the baseline assessment, the results of the end-line indicate that only 2.2% of teachers who reported reading to their students on a daily basis. In addition, the percentage of teachers who reported “never” reading to their students dropped by (57%) among intervention teachers, and only by (22%) among teachers in control schools by the end-line assessment. This could be explained in light of the YEGRA steps that teachers follow in their classrooms where reading aloud to students should be a daily practice.” (Creative Associates International)

Student learning results were scored using a more stringent methodology (than typical EGRA scoring) that was asked for by the MOE. YEGRA students were scored according to the more exacting standard of the right pronunciation of every diacritic in the word. If the student missed the right pronunciation of one diacritic, the word would be marked “wrong.” Therefore the scores are not exactly comparable to EGRA results from other countries and previous Yemen EGRA results. For example, oral reading fluency in the YEGRA intervention group rises from 13 to 18 when rescored according to more typical methods.

C. Other Assessments

Though projects have yet to be implemented in the countries below specifically on improving reading among early grade students, EGRA and SSME data have been collected for Morocco, Iraq, and Jordan that are useful to this discussion. USAID’s West Bank and Gaza Mission is in the process of carrying out its first EGRA, and results will be realized and discussed with the Palestinian MOE by Summer 2014.

Morocco: An EGRA was carried out in the regional of Doukkala Abda in 2012. The teaching force even in the early grades is still primarily male in Doukkala Abda. Only 29% of teachers were female (and interestingly pupils with female teachers read on average 15 more words per minute than those with male teachers [$p=.008$]). A majority of the teaching force in our sample (64%) received training in how to teach reading, most (83%) through their pre-service program and some (16%) through their in-service program. Having teachers with pre-service training in reading correlated positively and significantly with oral reading fluency scores ($p=.0002$) for pupils in grade 3; they exceeded their peers by on average 15 words per minute. The same positive impact did not carry through to in-service training; pupils whose teachers reported receiving in-service training scored 11 words on average fewer than those whose teachers had not received in-service training.

It was reported that “During reading lessons, content focused primarily on students reading texts (54.4%) and reading comprehension activities (24.8%)” (Messaoud-Galusi et al., 2012, p. 52) (see **Table 12** below from the same report, p. 53).

Table 12: Instructional content, Morocco

Instructional Content: Reading (Morocco)	% of class time devoted to skill
Letters/sounds	2.3%
Reading isolated words	4.3%
Reading sentences	8.0%
Vocabulary (word meanings)	2.8%
Writing/dictation	3.4%
Reading texts	54.4%
Reading comprehension – text	24.8%
Writing – creating texts	0.6%

Source: Messaoud-Galusi et al. (2012), p. 53.

As noted above in the review of the scholarly research, phonological awareness skills are critical to reading, and if children do not know letters/sounds they will have a hard time reaching a level of good reading comprehension.

Teacher-pupil interaction was generally positive in that teachers did take time to provide feedback to individual pupils, another factor that correlated with higher reading scores. During reading lessons, teachers divided their focus fairly evenly between the whole class (45.7%) and individual pupils ((45.4%). Over 30% of teacher actions in the observed classroom focused on monitoring pupils, with 27% of actions directed to listening to pupils and 16.5% to asking questions. Pupils in these classes spent the majority of their time reading out loud (57.3%), listening to the teacher (15.4%), and answering questions (14.8%). Finally, a review of pupil notebooks found that the majority of teachers observed reviewed and provided written feedback to pupils (86%). In general, these practices all seem quite positive, possibly suggesting that the content of the lessons might be the cause of the lower scores in reading achievement.

Jordan: Unlike the Moroccan, the Jordanian teaching force in the sample was 87.1% female. Again, pupils with female teachers did better on number of words read per minute (5.1 more than pupils of male teachers $p=002$). Thirty-six percent of teachers received pre-service training in how to teach reading. Thirty percent reported receiving in-service training in how to teach reading. Classes where the teachers received pre-service training on average were over four times more likely to be “strong performing” (Brombacher, Collins, Cummiskey, Kochetkova et al., 2012, p. 62).

Teacher activities in the classroom broke down as follows (*Table 13*).

Table 13: Instructional content, Jordan

Instructional Content: Reading (Jordan)	% of class time devoted to skill
Sounds without print	0.5
Letters/sounds	1.0
Reading a letter inside a word	0.7
Reading syllables inside a word	1.5
Reading isolated words	4.8
Reading sentences	7.7
Vocabulary	5.5
Dictation	5.4
Reading texts	20.3
Reading comprehension	46.6
Writing—creating texts	2.6
Other	3.4

Source: Brombacher, Collins, Cummiskey, Kochetkova et al. (2012), p. 73.

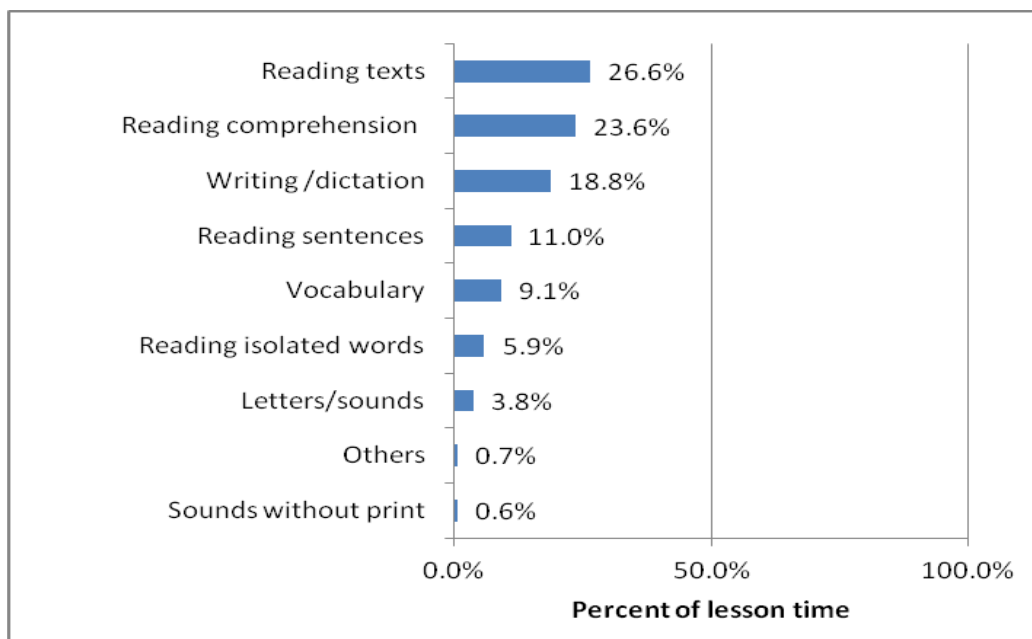
As in Morocco, a high proportion of time (almost half) was devoted to reading comprehension activities in grades 2 and 3, and a much smaller percentage of time was spent on some of the more foundational skills of reading such as letter/sounds, letter identification, vocabulary (MSA), and isolated word reading. Teacher actions during the lesson included the following: 28.6% of time explaining concepts, 28.1% monitoring students (Brombacher, Collins, Cummiskey, Kochetkova et al., 2012, pp. 75–76). Pupils spent a good portion of their lesson time reading aloud (29.6%); listening to the teacher accounted for 24.5%, and answering questions accounted for 23.5%. Pupil-teacher interaction was generally positive, as teachers did give pupils feedback both in writing and orally; pupils whose notebooks contained written feedback had better oral reading fluency scores, reading 4.6 more words per minute than pupils whose books contained no written feedback (Brombacher, Collins, Cummiskey, Kochetkova et al., 2012, p.79). Overall, pupils reported that they received constructive feedback from their teachers (79%) (Brombacher, Collins, Cummiskey, Kochetkova et al., 2012, p.80).

In 2013, the Ministry of Education with technical support from USAID/Jordan embarked on a one year research intervention project in reading (and mathematics) to address the findings of the 2012 National Early Grade Survey, which had established that schools were essentially functional and that while the students were reading with some fluency they did so with very poor comprehension. Rather than revise the entire curriculum and/or attempt to change the approach to teaching reading (and mathematics) in the early grade classrooms, short 15 minute daily routines were introduced to expose teachers to alternate teaching methodologies and approaches without asking them to change everything at once.

Iraq: Like the teachers in Jordan, the majority of teachers in the sample of grade 2 and 3 classrooms in Iraq were female (84.8%). Interestingly again, pupils with a female teacher read on average 3.4 more words per minute than those receiving instruction from a male teacher ($p=.028$); they also scored 8.4% higher on reading comprehension ($p=.012$). In Iraq, unlike in Morocco and Jordan, a very small percentage of teachers reported receiving pre-service training (6.3%) or in-service training (7%) in how to teach reading (Brombacher, Collins, Cummiskey, de Galbert et al., 2012, pp. 55-56).

In terms of instructional content, the following breakdown was observed in our sample classrooms (*Table 14*).

Table 14: Instructional content, Iraq



Source: Brombacher, Collins, Cummiskey, de Galbert et al. (2012), p. 64.

It seems that across many of our focal counties there was an emphasis on reading aloud and reading comprehension. Again, this tended to favor children who mastered the alphabet and had sound phonological awareness and phonics skills. However, reading scores in all of our focal countries indicated that pupils had not sufficiently mastered the foundational skills of reading. In addition, the study showed that 88.4% of pupil notebooks contained teacher feedback/comments. Pupils whose notebooks did have teacher feedback read 7.1 more wpm than pupils whose notebooks had no comments (Brombacher, Collins, Cummiskey, de Galbert et al., 2012, p. 68). In terms of teacher focus, teachers spent the majority of their time focused on the entire class (74.2% of the time), and spent most of the remainder of the time with individual pupils (17.6%). In terms of teacher actions, the largest proportion of time (in descending order) was spent: listening to pupils, speaking to the class, and monitoring pupils (Brombacher, Collins, Cummiskey, de Galbert et al., 2012, p. 64).

Summary: In summary, across these countries, a rather low amount of classroom time is devoted to foundational reading skills. The majority of classroom time in these early grades focused on reading texts and reading comprehension. While reading comprehension is critically important, pupils cannot read with enough fluency to comprehend if they do not have basic phonological awareness and phonics skills. Phonics skills seem to be underemphasized in instruction. Finally, it is unclear what sorts of comprehension skills pupils are learning in these early grades. The scholarly research above indicated that recognizing word roots (morphology) as well as being able to derive clues from the sentence context are critical to reading well in

Arabic. These are skills that can be strengthened through targeted instruction; it is not clear if the comprehension activities that are going on in classrooms across the region target these particular skills. In addition, receiving corrective feedback from teachers also correlated positively with higher reading achievement scores among pupils in all four countries discussed above.

Research Question 3: What is the state of knowledge regarding effective Arabic reading instruction in diglossic contexts, where pupils are first-language speakers of an Arabic dialect but not MSA?

As outlined in the sections above, phonological awareness, morphological awareness and identifying and using context clues are all things that need to be explicitly taught in the classroom. As the data in this section indicate, however, these foundational reading skills are skipped over in favor of reading and memorizing texts. Language building blocks are not emphasized to the degree they need to be in the diglossic contexts of the Arabic speaking world.

Research Question 9: How is pupil learning affected by using pattern recognition vs. phonics (*tariqa sawtiya*)?

There is some confusion on the terms and what they mean in Arabic and how they translate to English. Phonics is best translated, according to several people we have talked with, as “*tariqa sawtiya*,” which denotes the use of sound (*sawt*, which is sound or voice) while *tariqa hijaiyah* seems to denote letter recognition and naming/spelling more than sound identification. Pattern recognition can suggest two things: understanding short vowel patterns—i.e., ba, bi, bu, ta, ti, tu—when paired with consonants, which has been a traditional way of teaching that generally emphasizes letter (consonant) names more than individual consonant sounds. Pattern recognition could also denote the use of word morphology to unpack meaning.

Whole word recognition does not seem to be effective (except for common sight word recognition). The literature pointed to the need for a phonological and phonics-based approach (i.e., *tariqa sawtiya*) to teaching reading in the early grades. The literature also strongly suggested that a focus on Arabic word patterns (roots, suffixes, prefixes, and infixes) is also very important. Certainly orthography is important, and research indicated that pupils move toward a more visual/orthographic approach as they advance in their reading in Arabic. However, phonological awareness is absolutely necessary and phonics must be explicitly taught; this method appears to be more promising than the *tariqa hijaiyah* and the whole word methods.

D. Books and Resources

Having access to reading materials is a significant factor in developing reading skills. Research on literacy from all over the world extensively documented the need for exposure to print and opportunities to practice reading (Brombacher, Collins, Cummiskey, de Galbert et al., 2012). The SSME research on schools in Iraq, Jordan, and Morocco in 2011–2012 and the EGRA baseline in Egypt in 2009 were very encouraging in that they documented the fact that textbooks were widely available to pupils in these countries. In Morocco, 98.6% of pupils in the study had textbooks; in Iraq, 98.3% had textbooks; and in Jordan, 99.3% have textbooks. Likewise, pupils in Lebanon and the Gulf countries (with the exception of Yemen) also had access to Arabic textbooks in the early grades ((Brombacher, Collins, Cummiskey, de Galbert et al., 2012). What pupils in Iraq, Jordan, and Morocco did not have access to is other reading materials—readers, storybooks, magazines, and other materials to use in practicing reading and in developing the habit of reading. For example, in Morocco, only 10% of the schools in the sample had libraries (of which 50% were observed to be in use, when the data collectors visited schools). The percentage of library availability was a little higher in Iraq at 13.5% and much higher in Jordan at 50%. Still, fully half the schools in our sample from Jordan were without libraries, and this rises to 86.5% in Iraq and 90% in Morocco. Jordan data indicated that 67.6% of classrooms contained additional reading materials; in Iraq, 4.6% of the classrooms visited contained additional reading resources for pupils, and in Morocco, only 2% of classrooms had additional reading resources. (In Morocco 55% of the classrooms did have some posters on the wall though, which is positive.)

In the schools in Morocco that had a library that was used, pupils read an average of 12 words per minute more than pupils in schools without library access; this difference was significant ($p=.004$). In Iraq, the presence of a library correlated significantly and positively with reading ability; Iraqi pupils in schools with libraries read 7 more wpm than pupils from schools with no library ($p=.023$). In Jordan, SSME data showed that “[c]lassrooms that had any reading materials/non-textbooks were 4.3 times more likely to be strong-performing classrooms [as measured by class ranking, based on pupil oral reading fluency rates ($p=.002$)]....The positive correlation between availability of non-textbook books in the classroom and oral reading fluency (ORF) held even when pupil wealth was taken into consideration, indicating that this result is not simply a reflection of greater wealth levels” (Brombacher, Collins, Cummiskey, Kochetkova et al., 2012, p. 71).

Gulf countries, by contrast, such as Qatar and Saudi Arabia, generally had libraries in all schools, and classrooms tended to have supplemental reading materials for children. Yet, the PIRLS data suggested that reading performance was still low. This suggests that multiple variables are at play in terms of the impact of access to books and reading resources in schools on pupil performance. This topic merits further research to unpack those variables and understand how the availability of resources can better translate into better reading achievement in those countries.

For pupils of lower socioeconomic strata, school might be the only place where they will find books they can borrow and use, even if only while in school. School might also be the only place where they are allowed the time and space to read uninterrupted. Data from Yemen bore this out in that “Children who reported that they had time to read at school obtained significantly higher scores in reading familiar words, whether they were presented in a list or in a passage. They also showed stronger achievement in both reading and listening comprehension. Having time to read in class was also associated with higher spelling scores” (Collins & Messaoud-Galusi, 2012, p. 37).

It should be noted that access to books in the home was also correlated positively with oral reading fluency, as was reading to someone or being read to in the home: “For example, students who reported reading at home [in Jordan] at all were able to correctly pronounce the sound of 4.3 more letters per minute, decode 3.2 more invented words per minute and read on average 4 more words per minute than those who never read at home. [The difference in reading performance among those reading at home and those not was statistically significant at the .001 level for letter sounds and ORF, and 0 for invented words.]” (Brombacher, Collins, Cummiskey, Kochetkova et al., 2012, p. 67). In Iraq,

Access to reading materials outside of school has clear implications for students’ reading development, because Iraqi students who reported that they had books (other than textbooks) available at home showed greater mastery of letter-sound knowledge, more accurate decoding of invented words and real words in passages, and better comprehension of written and oral passages. [The difference in means between students who reported having access to books at home and those who did not was statistically significant for all the EGRA performance measures ($p=.001$ for letter naming; $p=.000$ for invented word reading; $p=.001$ for oral reading fluency; $p=.000$ for reading comprehension; $p=.003$ for listening comprehension)] (Brombacher, Collins, Cummiskey, de Galbert et al., 2012, p. 60).

The presence of books in the home may also relate to socioeconomic factors and as such might be something that policymakers and school leaders cannot influence as directly as the provision of reading materials and reading time to pupils in schools.

E. Other Significant Factors

While this report is largely focused on instructional issues—i.e., what is the most effective way to teach reading in Arabic to early grade pupils—there were a number of other factors that showed some correlation with pupil reading abilities as measured by EGRA. Absenteeism can be a family issue, linked to socioeconomic circumstances; however, school environment and safety, quality of instruction, and the quality of school leadership have also been shown in different circumstances to relate to absenteeism. Missing class time can have a negative impact on learning in any subject; it has a clear impact on learning the foundational skills and competencies of reading and writing. In Iraq, “Students read an average of 4 words less per minute when their teachers that [sic] report having one or more students absent on a normal day” (Brombacher, Collins, Cummiskey, de Galbert et al., 2012, p. 75).

Reading is a skill on which other learning depends; missed instructional time in reading is not something that can be made up by getting the notes from a classmate. In Jordan, the average absenteeism rate was 12.6%; the average observed absenteeism rate in “strong performing classrooms” (i.e., in terms of oral reading fluency) was 6.1%, or nearly 50% less than the average. Across Iraq, Jordan, and Morocco, SSME data demonstrated that even late arrivals had a deleterious effect on EGRA performance. Finally, in Yemen,

Students who reported that they had been absent the previous week showed weaker performance on most of the subtasks of the EGRA. Students who had missed at least one day of school the previous week identified 1.18 fewer correct letter sounds, read 2.51 fewer familiar words in lists and 2.16 fewer words in the passage and were less accurate in spelling the three dictated words (spelling on average 8.36 letters correctly compared to the 9.29 letters spelled accurately by the children who did not miss school). Children who did not miss school were also more successful in answering the reading comprehension questions (Collins & Messaoud-Galusi, 2012, p. 35).

Absenteeism is an issue that cuts across leadership, instruction, and family engagement and probably needs to be addressed at all three levels. The SSME studies in Iraq, Jordan, and Morocco all pointed out the importance of keeping attendance records to discourage both teacher and pupil absenteeism; this is in many ways an issue of school leadership. Ensuring that families understand the important learning base that is laid in the early grades, particularly in reading and writing, is another issue that involves school leadership and community outreach. Motivating pupils to come to school through engaging them in interesting lessons and providing constructive feedback is critical as well.



Research Question 5: According to the evidence above, are there any sub-regional similarities or differences of note in the teaching and learning of reading in Arabic? (*Maghreb vs. Mashreq, etc.*)

Great differences did not emerge from the literature; however, this does not mean there are not differences. No comparative studies looking at how reading is taught in a *Maghreb* and a *Mashreq* country came up during the literature search. Likewise, education journals in Arabic and a review of the Arab country Ministry of Education websites did not turn up vast differences in approach or strategy. We know that Egypt has embarked on a reform to emphasize phonics and phonemic awareness within the context of its curriculum and to train teachers to better teach reading. From the SSME data, we are able to identify some of the common activities that occur in Arabic classes in contexts as diverse as Egypt, Iraq, Jordan, Morocco, and Yemen. Across this data there seemed to be a core of similar activities, using a text as the basis of a lesson and doing recitation (possibly memorization) and comprehension activities. The whole word approach was observed to be used in Yemen; it is not clear that it is not used in the other countries. Possibly in other countries it is mixed with a more syllabic focus (identifying consonants with short vowels: ba, bi bu, ta, ti, tu, etc., and having children repeat these letter combinations and then combine and recombine them to form words).

Table 15 below summarizes some of the key questions by country.

Table 15: Key Research Questions by Country

Interviewee Questions	Egypt	Iraq	Jordan	Morocco	Yemen
Is reading taught as part of Arabic or as separate topic called “reading”	Taught as part of the Arabic curriculum with a class for reading in schedule. In reading class students read, identify ideas, meanings of vocabulary, and answer comprehension questions.	Reading is a main part of the Arabic curriculum. Arabic curriculum contains grammar, expression, reading, dictation, or spelling or pronunciation.	Reading, writing, listening skills are interlinked. Reading and writing are taught concurrently (i.e., child sees the letter first, learns its sound and then learns to write it in the same lesson).	Taught as a class on its own with time to teach a large range of texts: letters, literature, and more functional forms of writing. Integral to teaching as used to deduce grammatical and conjugation-related rules.	Taught as a course inclusively with the Arabic language method and use of phonics introduced; No other book is used but the reading textbook.
How is reading taught now? What methods? Are teachers trained, and how? Do teachers use instructional standards?	Recent reforms in reading instruction adopted a phonological approach, curriculum reviewed, teachers trained, regional Early Grade Reading Units established, and reading program training accredited by the Professional Academy of Teachers.	Mixed method approach with a combination of vocal synthesis and composition; focuses on sound and symbol/writing (i.e., phonics). Curriculum change is forthcoming.	Recent reforms in reading instruction adopted phonological approach. Holistic approach used until 2012-2013. New curriculum for 1 st grade introduced phonetics approach, including use of pictures to include words related to a lesson's letter.	No major reform of reading curricula yet. Cited both use of oral and acoustic methods (class repeats the letter multiple times in a loud voice); or teachers focus on memorization and rarely use acoustic recordings for letter, pronunciation or vowel.	Recent reforms in reading instruction adopted a phonological method. Criteria exist for teachers on reading instruction methods. Many use chants / songs, quizzes, repetition, follow-up on students' homework, error correction, etc.
Are grade teachers trained explicitly in teaching the component skills of reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension)?	Explicit training underway for grade 1-3 teachers; tied phonological approach.	More general pedagogical training provided not directly related to reading.	More general pedagogical training provided not directly related to reading	More general pedagogical training provided not directly related to reading	Training efforts underway, including behavioral goals with respect to reading and methods or ways of teaching it.
Does your country have reading standards for pupils?	Standards for Arabic language, but a fluency rate for each grade not specified in standards. Standards address loud reading, silent reading, and reading with tashkeel. Standards were reviewed in 2012 with use of new methods. No benchmarks for each grade.	No benchmarks by grade and no official, national reading standards. Some Iraqi respondents insisted there are standards but the descriptions of them indicated that these were school-level standards and not national standards with indicators and benchmarks.	No benchmarks by grade and no official, national reading standards. School performance reports for students encompass skills/learning outcomes for which teachers determine students' achievement level (high, medium, satisfactory, or unsatisfactory).	No benchmarks by grade and no official, national reading standards. For the lower levels students are asked to read the letters and write them down. There are no unified criteria in use.	No benchmarks and no official, national reading standards. No criteria adopted for reading but rather developed by teachers. Fluency between students and classes and levels vary (e.g., students pronounce 30 words in about one minute in 1 st grade; 40 words in the 2 nd grade, etc.

V. Conclusions and Recommendations

A. Conclusions

This study provides evidence of the challenges facing Arabic-speaking countries in teaching reading. PIRLS and EGRA both suggest that children in Arabic-speaking countries are not learning to read as they should be. There are several findings that emerge from the review of both scholarly literature on learning to read in Arabic and project-based literature on how reading is taught and what sort of literacy environment children experience in school and at home. These are described below and inform the recommendations in the subsequent section.

Diglossia: Diglossia is a definite factor in how well children learn to read in MSA, and mitigating the effects of moving from dialect (at home and in daily life) to MSA (in school and in particular for writing) is important in the early grades so that children can develop reading skills. If skills are not developed in the early grades, it is very hard for children to catch up later. Oral language development is important for children learning to read. Given that MSA is a form of Arabic that is different (although related) from what children speak, they need to develop listening comprehension skills and vocabulary before they can truly learn to read in it. The literature demonstrated that early exposure to MSA (in the home and in pre-school and kindergarten) is effective in helping children learn and learn to read in MSA.

On the other end of the spectrum, given the research on mother tongue instruction, it could be effective to teach children to read in dialect. This was not suggested in the literature reviewed and is not very feasible in that there generally are not written resources in Arabic dialects. Organizations like the US Peace Corps have produced guides and manuals for teaching Arabic dialects but these are geared toward adult, non-native speakers, not toward native Arabic-speaking children and would not be appropriate. Given the dearth of materials in each of the specific dialects and the status of MSA as a lingua franca of the Arab world and a source of pride (for its history, beauty, scholarship, and religious affiliation, etc.) it is probably not a politically palatable choice for ministries or parents to use dialect for early instruction in schools. However, it might be possible to train teachers to better bridge the diglossic gap, to use translation or rephrasing systematically to ensure that everyone in the classroom understands information presented in MSA. Our understanding is that teachers do this sort of translation somewhat regularly for early grade pupils. However, given the poor tests results we are seeing and literature that suggested diglossia is a factor in those poor scores, more explicit guidance in how to transition children from dialect to MSA in school might be in order.

Vocalization: Vocalization or short vowel markings are an aid to struggling readers and important for all children first learning to read, as these markings render words phonologically transparent. This important tool helps children first learn to decode, but diminishes in importance as they gain more reading skills, particularly in terms of morphological awareness. The question

of when to transition children to unvoweled text is critical. It is commonly done in fourth and fifth grades. For pupils who have made good progress and are reading with fluency and comprehension, nothing suggests that this is premature. However, given the fact that children in Arabic-speaking countries have scored poorly on the PIRLS for fourth grade, delaying the transition or making it more gradual could be a good policy and one that does not really have any downside or negative consequences for pupils. Successfully transitioning from voweled to unvoweled text really depends on the pupil's ability to use other information present at the word and sentence level to compensate for the absence of short vowel markings and to reach the correct meaning. Ensuring that teachers have strategies to teach these skills and thus facilitate the transition successfully—at whatever grade—is important. Likewise creating or procuring remedial reading materials with vowel markings for late elementary school pupils could be an effective way to remediate problems for struggling readers in those later grades.

Phonological awareness and phonics: Phonological awareness and phonics skills are critical for learning to read; evidence suggests that they are not taught as systematically as might be desirable in the countries we examined. Children need to know the letter shapes, letter names, and letter sounds. Focusing on only one or two of these elements of instruction proves ineffective; all three must be explicitly and systematically taught to pupils.

The *tariqa hijaiyah* has been mentioned in the literature as a prevalent method of reading. This is not to be confused with the *tariqa sawtiya*, although there is some evidence that they are at times equated. The former puts a heavier emphasis on teaching the letters—the letter names and the letter shapes. One way to describe it is that *tariqa hijaiyah* is more spelling focused than sound focused. Indeed, the implication seems to be that *tariqa hijaiyah* puts emphasis on spelling or orthography over being able to sound out words; however, the preponderance of research indicates that phonological awareness is the most critical variable in developing as a reader in the early grades. *Tariqa sawtiya* (*sawt* means voice in English) is more of a phonics-based approach in that it does emphasize identifying the sounds that make up words and the sound /letter correspondence. Being able to identify letter sounds is critical to sounding out or figuring out words when reading; it is crucial to the decoding process for beginning readers.

Letter names, letter shape recognition, and letter sound knowledge are all important and must all be explicitly taught and practiced in the classroom with pupils in the early grades. It is critical that all teaching approaches for early grade reading focus on all of these elements.

Morphology: Morphological knowledge impacts reading skills in Arabic and is a very important tool in reading fluently and with comprehension. Recognizing word roots is one aspect of morphological knowledge. In Arabic, most words have a core three, four, or five consonant root; the root is augmented by prefixes, suffixes, infixes and short vowels to create different words. Recognizing word roots contributes to deducing word meaning.

In addition to word roots, prefixes, suffixes, and infixes also offer information about a particular word, sometimes signaling the part of speech, tense, or role in the sentence that the word plays. In short, the evidence shows that being able to unpack the morphemes in a word in Arabic is an

aid to unlocking vocabulary and determining meaning; however, it has been underutilized as a learning tool in the teaching reading.

Sentence context: Being able to rapidly use sentence context is very important in word identification in Arabic and thus in unlocking sentence meaning. As pupils progress in their reading, they need to rely more heavily on sentence contexts to read fluently and with comprehension. Using context clues is a skill that can and must be taught and better integrated into instruction.

Age-appropriate reading materials: The presence and availability of appropriate reading materials at home and in school (beyond the textbook) correlates with higher EGRA scores. Having time to read in school correlates with better reading performance, as does regular teacher feedback and daily attendance at school.

B. Recommendations

The recommendations below emerge from the findings of the literature review. They fall into four broad categories: early exposure to MSA,, teacher professional development and classroom instruction, curricula, and reading resources and materials.

Early exposure to MSA:

- Home-based reading and writing activities using MSA should be expanded through awareness campaigns, school/education official outreach to families.
- Community-based NGOs and community volunteer organizations concerned with education should be enlisted in efforts to read to young children and facilitate their understanding of MSA.
- Community-based NGOs and community volunteer organizations concerned with education should be enlisted in efforts to train parents in read-aloud skills for young children and to connect them to available books for young children.
- Private kindergartens and pre-schools (of which there are many) should be informed of the importance of exposing children to MSA and encouraged to do story reading (read-alouds) and writing activities.
- Read-alouds should be a regular part of daily kindergarten and preschool lessons for both public and privately run classes in countries where there is a government required or approved kindergarten or early childhood education curriculum.
- School leaders in particular should use their positions to reach out to parents and raise awareness among families in their schools' catchment areas of the importance of early exposure to MSA and early reading activities such as read-alouds.
- Ministries, schools, and communities should encourage reading clubs and other reading activities outside of school to promote the habit of reading.

Teacher professional development and classroom instruction:

- Teachers must be trained to teach the component skills of reading, starting with the critical phonological awareness skills and including alphabetic principles, morphology, and use of context clues; in particular:
 - Teaching of the alphabet needs more emphasis, given the low letter-recognition skills we saw in some of the EGRA tests.
 - Activities and lessons exploiting morphological features of common words in early grade classrooms must be developed, and teachers must be trained to use these tools.
 - Modeling the process of how to use context clues (as well as phonological awareness and morphological processing) is a critical skill that teachers must have and be able to pass on to pupils. The development of model lessons and in-service training are potential avenues to disseminate this teaching knowledge.
- Teachers should also be trained to manage instructional time so that pupils have opportunities to be read to by the teacher and to read silently to themselves or with a partner.

Curricula:

- The teaching of reading should be coalesced into a subtopic under the overall Arabic curriculum to ensure that the component skills are taught thoroughly and coherently to all pupils.
- Teaching strategies should be clearly defined within the curricula so that teachers with minimal training can deliver an effective lesson.
- Structured lesson plans for early grade teachers (in the form of teacher guide books for example) should be developed and distributed to teachers, whether through a central ministry or through district offices or NGOs.

Reading resources and materials:

- Children need more story books in pre-school, kindergarten, and the early grades. Books should be available at reasonable costs for families and schools to purchase and use. Ministries should take a leading role in this endeavor through producing or procuring books for the early grades.
- Factors that should be addressed include: (i) book production costs (quantity, quality and durability of book types); and (ii) book procurement and distribution systems (central or decentralized procurement processes; timely delivery of materials; and appropriate quantities).

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Annexes

- A. Bibliography
- B. In-Country Researcher Scope of Work
- C. Interview Protocol and Instructions
- D. List of Interviewees (by role)
- E. Analysis of Interview Data

Annex A: Bibliography

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Annex B: Scope of Work for In-Country Researchers

Topical Analysis of Early Grade Reading Instruction

I. Objective of the study

The purpose of this study is to better inform USAID and the international development community about programming for reading improvement initiatives in Arabic-speaking countries. The study will compile information on best practices regarding the teaching and learning of reading in Arabic and on current donor and government reading initiatives; document the state of teaching and learning of reading in Egypt, Iraq, Jordan, Morocco, , Oman, Qatar, and Yemen among others; and identify practices and approaches that can be deemed most effective based on existing evidence. The paper will be presented and discussed at USAID's regional Middle East All Children Learning Workshop in December 2013.

II. Work to be performed

Each research consultant will be contracted for approximately 48 hours of work (six full days). The work can be broken up across the month of September and early October. Depending on the number of interviewees, the total number of hours may be adjusted up or down as needed but with prior approval for budgeting purposes. The general list for interview subjects is as follows:

- Director General/Secretary General—Ministry of Education (to explain policy, highlight macro issues, comment on what is working in terms of reading instruction, including projects and ministerial initiatives)
- Head of curriculum department
- Early grade Arabic curriculum developers (2)
- Head of teacher supervision—Arabic/reading
- Teacher trainer (s)—1-2 trainers in reading/Arabic instruction
- Research and evaluation department—1-2 people involved in the assessment of pupils' reading in Arabic
- Faculty of Education instructor/lecturer/professor (2)—early grade reading/Arabic
- Arabic reading teachers (3)
- Well-known local experts (possibly academics/ faculty members, NGO staff or project staff, or consultants) with relevant knowledge of early grade reading in Arabic

RTI and the research director will approve the final list of interviewees per country.

The research consultant will:

- Identify some research candidates by name, as needed;
- Contact interviewees and set up appointments for the interviews;
- Conduct the interviews using the basic interview protocol in Annex B. (The protocol can be tailored by country to make it as local as possible.);

- Review the interview protocol and suggest edits or changes to the interview protocol to make it as local and relevant to the individual country context as possible;
- Record the interview or take detailed notes on the responses;
- Type up the interviewee's interview in a Microsoft word document (one per interviewee), including researcher notes and observations; and
- Review data and write an overall summary of the results found, including any relevant observations.

III. Deliverables:

- Final list of interview subjects and contact details
- Data (Interview responses [typed] for each interviewee)
- Summary of results found (not more than 6 pages)

Annex C: Interview Protocol and Directions

October 2, 2013

Greetings Sir/Madame,

Thank you for agreeing to lead the interviews for the “TOPICAL ANALYSIS OF EARLY GRADE READING INSTRUCTION IN ARABIC” research. The following steps are listed below as a guide to help you carry out the research work.

1. Read the interview protocol carefully in both Arabic and English and be familiar with it as soon as you can and before doing the actual interviews. (Annex A) You will notice that the bolded text is either direction for the researcher or text the researcher needs to read aloud to the interviewee. The initial question is bolded; there are additional probing questions that accompany the bolded question. Use those as appropriate; they are useful if interviewees tend to give very short answers as they encourage more explanation.
2. Identify a number of possible interviewees from the field (but not more than 10 people); these possible interview subjects could be as follows:
 - a. Head of Curriculum Department
 - b. Early grade Arabic curriculum developers
 - c. Head of teacher supervision—Arabic/reading
 - d. Teacher trainer—trainers in reading/Arabic instruction
 - e. Research and evaluation department—people involved in the assessment of pupils’ reading in Arabic
 - f. Faculty of Education instructor/lecturer/professor—early grade reading/Arabic
 - g. Arabic reading teachers
 - h. Well-known local experts (possibly academics/ faculty members, NGO staff or project staff or consultants) with relevant knowledge on early grade reading in Arabic
 - i. Director General/Secretary General—Ministry of Education (to explain policy, highlight macro issues, comment on what is working in terms of reading instruction, including projects and ministerial initiatives)
3. Contact interviewees and set up appointments for the interviews. Let the interviewees know that you will need at least an hour of their time.
4. Review the interview protocol again and note or jot down any edits or changes to the interview protocol to make it as local and relevant to the individual country context as possible and to make it as relevant to the individual interviewee’s position. (Annex A)
5. Obtain the interviewee’s consent before conducting the interview (i.e. read the statement of informed consent at the top of the interview protocol and ask the interviewee to explicitly state “yes” if they agree to be interviewed). If you have a recorder, ask the interviewee for permission of recording the interview to ensure accuracy of data collected. If recording is not a possibility, take detailed notes on the responses

6. Conduct the interviews using the basic interview protocol attached. Interviews can be in English or Arabic or even French if the subject is more comfortable in that language; (please note that you would have to translate the interview questions into French); the protocol has been translated into Arabic and the Arabic version is also attached. (Appendix A) Interviews will take about an hour.
7. Type up your interview notes (or scan them and email them to the research team in the US, if the handwriting is very clear); if you recorded the interviews, transcribe them into a Microsoft word document and include the researcher's notes and observations. If you cannot transcribe the recordings, download and send the recordings to the US based research team.
8. Be sure to encourage the subject to elaborate, explain and describe his or her thoughts, opinions, etc.
9. When you are done, read over the data you have collected and write a brief summary of themes you see emerging, commonalities in the responses, places where they were widely divergent, etc. (For example, if all of the interview subjects said they believe there is a problem with the way reading is taught, note that in your summary; if you got 8 different answers for a question on how reading is assessed in your country, note that in your summary.) In the summary, please include a schedule of when the interviews were held (date and time), with contact info for the interviewee.

Sincerely,

Helen N. Boyle, Ph.D.
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Topical Analysis of Early Grade Reading Instruction in Arabic
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Topical Analysis of Reading Instruction in Arabic: Interview Protocol: English

Statement of Informed Consent

Researchers, please read the statement below to the subjects to whom you will administer the interview

“Hello. My name is X. Thank you for agreeing to meet with me and answer some questions about how children learn to read in [insert name of country]. The purpose of this study is to better inform educators in the Arab world and international organizations that support education—like USAID and the World Bank— about what things contribute to improving the teaching and learning of reading in Arabic. We are interviewing educators from various countries across the Arab world and doing library research as well on reading. The results of our research will be compiled in a research paper that will be presented at a conference in Morocco later this year to ministry representatives and international organizations. All information we collect through interviews is strictly confidential; your real name will not be used in any publication or report and all records will be kept strictly confidential.

Do you have any questions?

Do you consent to this interview?” (If conditions and equipment support recording, ask: “May we record the interview to make sure we take down exactly what you say?”)

Researcher: _____ Date: _____

Position of interviewee: _____ Educational level: _____

Gender: _____ Location: _____

Researchers: Some questions actually have multiple parts. Let the subject answer the first part before asking the second part. Please make sure you probe—when someone gives an answer, ask “why” if the person does not explain their answer. Strive to initiate a conversational tone to the interview; the questions are a guide but take your cues from the interviewee and do not feel compelled to repeat a question if the subject answered it out of order, in the context of responding to a previous question. (Please note that any text in bold below are directions for you, the researcher. Do not read aloud to the interviewee.)

1. **Tell me what you remember about learning to read (in Arabic).** What was the most important factor in your experience?
2. **Is reading taught as part of Arabic or is there a separate topic called “reading”?** Be as specific as you can about where reading is explicitly included in the curriculum.
3. **How is reading taught in your country now?** What methods do teachers use? How are they trained? Are there instructional standards for teachers, specifically related to reading? Can you talk a bit about what is contained in the standards? (I.e. what practices are teachers required to implement in their instruction?)
4. **Are grade teachers trained explicitly in teaching the component skills of reading (i.e. phonological awareness, phonics, fluency, vocabulary and comprehension)?** Where do they receive this training? (Pre-service? In-service?)
5. **Are children taught to read and to write simultaneously or does one precede the other?** (I.e. do children write letters as they learn to say them and identify their sounds? Are children taught to write frequently-used words?)
6. **How well are pupils in your country learning to read?** Why do you say this? Can you cite recent data and/or some examples? Within educational circles in your country have you heard concern expressed about pupils’ reading levels? If yes, can you tell us what the concerns are?
7. **Does your country have reading standards for pupils? If yes, what is the desired fluency rate for each primary grade?** Do pupils meet these standards or do you see challenges? Do you find that pupils meet comprehension standards, (if these exist)? Why do you say this? (I.e. is it based on data or evidence or your own observations)?
8. **How does diglossia impact the process of learning to read for children in your country?** How is diglossia addressed to facilitate the acquisition of reading skills? (i.e. is morphology emphasized to point out the links between dialect and MSA?)

9. **How does the fact that many pupils study a second language (usually with a different alphabet) in school from an early grade impact their learning to read and write in Arabic?** Is this a help or a hindrance? Can you give examples or cite recent data/studies to support this?
10. **What are some issues you have noticed regarding the transition from reading in Arabic to reading in a second language, including issues with language script?**
11. Research suggests that helping children make morphological connections (identifying word roots), using short vowel markers for longer in the early grades and exposing children to MSA in pre-school all contribute to better reading in Arabic. **Do you think the teaching of reading in Arabic in your country takes this into account?** Can you provide examples of projects or initiatives that demonstrate that?
12. As an educator/expert in contact with other educators in the Arab world, **are there any sub-regional similarities or differences of note in the teaching and learning of reading in Arabic?** (Maghreb vs. Mashreq, etc.)
13. **What early grade reading interventions are currently being implemented in your country, either by the ministry, donors or others?**
 - a) What results are expected from these interventions? What have you seen so far? What data exist to document outcomes or results?
 - b) What seem to be promising approaches for instruction from these initiatives?
 - c) Are there future initiatives planned that will focus on reading?
14. **Can you share any examples you know of that could be considered “best practice” in teaching reading in Arabic?** Have there been any studies to document the success of these examples? Do you know of any data that exist to demonstrate improved reading?)
15. **How are reading levels currently assessed in your country?**
16. **Are there remediation programs for pupils who have been assessed as reading below grade level?** Can you describe them or tell us what you know about such programs, in terms of content and instructional approach?
17. **Are there any key policy initiatives underway that affect or will affect how reading is taught in your (i.e. changes in curriculum, school timetables, teacher qualifications etc.?)**
18. **If you were able to organize and fund an intervention to improve reading in your country, what are some things you would do? Why?**

Researchers: for interviewees who are not reading specialists, please proceed to wrap up the interview with question 19:

19. Are there any other important things about the teaching and learning of reading that I did not ask you but should have?

Researcher: thank the interviewee for his or her time.

Researcher: the following questions are for reading specialists/reading curriculum developers and teachers of reading only. Please introduce the section with the following statement or something similar:

“As a larger purpose of this study is to document the state of teaching and learning to read in your country and to identify specific practices that can be deemed most effective, there are certain questions specific to reading (and teaching reading) in the Arabic language that we would like to ask you.”

Researcher: Pose the following questions:

- In what order should letters be taught in vowelized Arabic?
- How is student learning affected by using pattern recognition vs. phonics (tariqa hijaiyah)? Which method is used in your country? Why?
- What are the effects of tashkeel (vowel set or diacritics) on automaticity?
- How do beginning vs. expert readers see vowelized and unvowelized words as they read?
- How does tashkeel affect speed?
- How should the transition to unvowelized words be facilitated?
- From your experience, which grammatical and syntactical features are similar or different between standard Arabic and the dialects of your country (e.g. conjugations, pronouns, popular use of verbs and nouns) and how are these addressed or handled in the curriculum?
- How do diglossia effects interact with the removal of harakat (tashkeel)?
- Which harakat could be safely removed in various grades (e.g. the first vowel could be left with the intermediate ones removed)
- What vocabulary or syntactical difficulties do students have in later years that may prevent the comprehension of more complex text?

20. Is there any other information that we have not asked you that you would like to share or think is critical to our study?

Researchers: thank the interviewee for their participation and time.

نظام المقابلات والأسئلة المقترحة

بيان الموافقة المسبقة للمشاركة في المقابلة

نرجو من الباحثين قراءة البيان أدناه إلى الأشخاص الذين ستقومون بعمل المقابلة معهم

"مرحبا. اسمي شكرا لموافقتكم على مقابلي والإجابة على بعض الأسئلة حول كيفية تعلم الأطفال القراءة في [أدخل اسم البلد]. الغرض من هذه الدراسة هو إطلاع التربويين في العالم العربي والمنظمات الدولية التي تدعم التعليم؛ مثل هيئة المعونة الأمريكية والبنك الدولي على الممارسات التي تسهم في تحسين تعليم وتعلم القراءة باللغة العربية. سنقوم بإجراء مقابلات مع تربويين من مختلف البلدان العربية وكذلك سنجري أبحاثا مكتوبة حول القراءة. سيتم تجميع نتائج أبحاثنا هذه في ورقة بحثية ستعرض في مؤتمر يعقد في المغرب في وقت لاحق من هذا العام لممثلي وزارات التربية والمنظمات الدولية.

جميع المعلومات التي نجمعها من خلال مقابلات تعتبر سرية للغاية ولن يستخدم اسمك الحقيقي في أي مطبوعة أو تقرير وسيتم الاحتفاظ بكافة السجلات في سرية تامة.

هل لديك أي أسئلة أو إستفسارات؟

هل توافق على إجراء هذه المقابلة؟ "(إذا كانت الظروف و المعدات تدعم التسجيل نرجو أن تسأل الضيف : " هل يمكن لنا أن نقوم بتسجيل المقابلة للتأكد من أننا ندون ماتقوله بدقة ؟")

إسم الباحث : _____ التاريخ: _____

وظيفة الضيف : _____ المستوى التعليمي : _____

الجنس: _____ الدولة: _____

إلى الباحثين : بعض الأسئلة لها أجزاء متعددة .إسمح للضيف أن يجيب على الجزء الأول قبل أن تطلب منه الإجابة على الجزء الثاني من السؤال . من فضلك تأكد من الاسترسال في المقابلة، فعندما يقوم شخص ما بإعطاء جوابا، إسأله "لماذا" إذا كان الشخص لا يعطي تفسيراً لجوابه . حاول أن تسع جاهدا لتكون لهجة التخاطب في المقابلة حوارية . الأسئلة هي دليلك في المقابلة، ولكن إستخدم إجابات الضيف كإشارات تساعدك في إجراء حوار المقابلة ، فلا داعي لتكرار سؤال قد أجاب عليه الضيف مسبقا من خلال أسئلة سابقة في الحوار. (يرجى ملاحظة أن أي نص مكتوب بالخط العريض هو عبارة عن تعليمات لك كباحث، نرجو عدم قراءتها بصوت عال للضيف .)

- 1 . قل لي ما الذي تتذكره من كيفية تعلمك القراءة باللغة العربية . ما هو العامل الأكثر أهمية في تجربتك؟
- 2 . هل تدرس القراءة كجزء من منهج اللغة العربية أم أن هناك مادة منفصلة تسمى " القراءة " ؟ كن دقيقا وصريحا قدر الإمكان حول كيفية تضمين القراءة في المناهج الدراسية.
- 3 . كيف يتم تدريس القراءة في بلدك الآن ؟ ما هي الطرق التي يستخدمها المعلمون ؟ كيف يتم تدريبهم على تدريس القراءة؟ هل هناك معايير تعليمية للمعلمين ، تتعلق على وجه التحديد بالقراءة ؟ هل يمكنك التحدث قليلا عن مايرد في هذه المعايير؟ (أي، ما هي الممارسات التي يلزم على المعلمين تنفيذها أثناء تعليمهم ؟)
- 4 . هل معلمو الصف مدربون بشكل صريح وواضح على تدريس مهارات القراءة (أي الوعي الصوتي ، الصوتيات ، والطلاقة ، والمفردات والاستيعاب) ؟ أين يتلقون هذا التدريب؟ (قبل الخدمة ؟ أثناء الخدمة ؟)
- 5 . هل يتم تدريس الأطفال القراءة و الكتابة في وقت واحد ، أم أن تدريس أحدها يسبق الآخر؟ (أي هل يقوم الأطفال بكتابة الحروف عندما يتعلمون النطق بها وتحديد أصواتها ؟ هم يدرس الأطفال كتابة الكلمات المستخدمة بشكل متكرر ؟)
- 6 . ما مدى إتقان التلاميذ في بلدكم تعلم القراءة ؟ لماذا تقول هذا ؟ هل يمكنك الاستشهاد ببيانات حديثة أو بعض الأمثلة تعزز ماتقول؟ هل سمعت عن قلق داخل الأوساط التعليمية في بلدك بشأن مستويات القراءة لدى التلاميذ ؟ إذا كان الجواب نعم ، يمكنك أن توضح لنا ما هي هذه المخاوف ؟
- 7 . هل يوجد في بلدكم معايير لقراءة للتلاميذ ؟ إذا كانت الإجابة بنعم ، ما هو معدل الطلاقة المطلوب لكل صف من صفوف المرحلة الابتدائية ؟ هل يصل التلاميذ لهذه المعايير أم أنكم ترون أن هناك تحديات؟ هل يصل التلاميذ لمعايير الفهم ، (في حالة وجود معايير للفهم) ؟ لماذا تقول هذا ؟ (أي هل ماتقوله يستند على بيانات أو أدلة أم أنه من ملاحظاتك الخاصة) ؟
- 8 . كيف تؤثر ازدواجية اللسان على عملية تعلم القراءة للأطفال في بلدكم؟ كيف يتم تسخير ازدواجية اللسان لتسهيل اكتساب مهارات القراءة ؟ (أي هل يتم استخدام المورفولوجيا(علم الصرف) للإشارة إلى الروابط بين اللهجة و العربية الفصحى الحديثة MSA ؟)

9 . كيف يؤثر التدريس المبكر للغة ثانية للعديد من التلاميذ في المدرسة (عادة مع أبجدية مختلفة) على درجة تعلمهم للقراءة والكتابة باللغة العربية؟ هل يشكل هذا التعلم للغة الثانية مساعداً أو عائقاً ؟ هل يمكنك إعطاء أمثلة أو الاستشهاد ببيانات أو دراسات حديثة لدعم ماتقول ؟

10 . ما هي بعض القضايا التي لاحظتها فيما يتعلق بالانتقال من القراءة في اللغة العربية إلى القراءة بلغة ثانية ، بما في ذلك قضايا الكتابة باللغة الثانية؟

11 . تشير البحوث إلى أن مساعدة الأطفال على تحديد الروابط المورفولوجية للكلمات (تحديد جذور كلمة) ، وذلك باستخدام الحركات(المودود القصيرة) لمدة أطول في الصفوف الأولى إضافة إلى تعريض الأطفال إلى العربية الفصحى الحديثة MSA في مرحلة ما قبل المدرسة كل ذلك يسهم في تحسين القراءة في اللغة العربية. هل تعتقد أن تدريس القراءة باللغة العربية في بلدك يأخذ ذلك في الحسبان ؟ هل يمكنك تقديم أمثلة من المشاريع أو المبادرات التي تستخدم ذلك النهج؟

12 . كتربوي و خبير هل تعلم من خلال الاتصال بغيرك من التربويين في العالم العربي بوجود أوجه تشابه أو اختلاف شبه إقليمية بارزة في تعليم وتعلم القراءة باللغة العربية ؟ (المغرب العربي في مقابل المشرق العربي ، الخ).

13 . ماهي التدخلات المبكرة في القراءة للصفوف الأولى والتي يجري تنفيذها في بلدكم ، إما عن طريق الوزارة أو الجهات المانحة أو غيرها؟

أ. ماهي النتائج المتوقعة من هذه التدخلات ؟ ما رأيك حتى الآن في هذه التدخلات ؟ ما هي البيانات التي توثق النتائج أو المخرجات ؟

ب . هل ظهرت اساليب و اعدة و فاعلة يمكن الإستفادة منها في التعليم من هذه المبادرات ؟(نرجو التفصيل)

ج . هل هناك مبادرات المستقبلية يخطط لها للتركيز على القراءة ؟

14. هل يمكنك أن تشاركنا بأي أمثلة تعرفها عن "أفضل الممارسات" في تدريس القراءة باللغة العربية؟ هل توجد دراسات توثق نجاح هذه الأمثلة من الممارسات؟ هل تعلم بوجود أي معلومات تظهر و توضح تطور القراءة؟

15 . كيف يتم إختبار مستويات القراءة حالياً ؟

16 . هل هناك برامج علاجية في قراءة للتلاميذ الذين تم تقييمهم دون مستوى الصف ؟ هل لك أن تصف لنا هذه البرامج ، أو أن تقل لنا ما تعرفه عنها من حيث المحتوى و الاساليب التعليمية ؟

17 . هل توجد مبادرات لسياسات تربوية حديثة تؤثر على كيفية تدريس القراءة في بلدك (مثلا تغييرات في المناهج الدراسية، أو الجداول الزمنية المدرسة ، أو مؤهلات المعلمين وما إلى ذلك؟)

18 . إذا كنت قادراً على تنظيم و تمويل مبادرات لتحسين القراءة في بلدك ، ما هي بعض الأشياء التي ستفعلها ؟ ولماذا ؟

للباحثين : الضيوف اللذين ليسوا إختصاصيي قراءة قم باختتام المقابلة معهم بالسؤال 18 :

19 . هل هناك أي أمور هامة أخرى حول تعليم وتعلم القراءة لم أسألك عنها وكان ينبغي أن أسألك وتود إضافتها؟

الباحث: أشكر الضيف لوقته الذي قضاه في المقابلة.

للباحثين: الأسئلة التالية هي لإختصاصيي القراءة أو مطوري المناهج الدراسية أو معلمي القراءة فقط. يرجى البدء بهذه الفقرة قبل طرح باقي الأسئلة

"الهدف الأكبر من هذه الدراسة هو توثيق حالة تعليم وتعلم القراءة في بلدكم، وتحديد الممارسات المحددة التي يمكن أن تعتبر الأكثر فعالية. هناك بعض الأسئلة المحددة عن القراءة (وتدريس القراءة) باللغة العربية التي نود أن نسألك عنها".

للباحث: قم بطرح الأسئلة التالية:

- أ. في أي ترتيب يجب تدريس الحروف بالمدود في اللغة العربية؟
- ب. كيف يتأثر تعليم الطلاب باستخدام الطريقة النمطية مقابل الصوتية (الطريقة الهجائية)؟ ما الطريقة التي يتم استخدامها في بلدكم؟ لماذا؟
- ج. ما هي الآثار المترتبة على تشكيل الحروف على التلقائية في القراءة؟
- د. كيف يرى القارئ المبتدئ مقابل القارئ الخبير الكلمات المشكّلة و غير المشكّلة عندما يقومون بالقراءة؟
- هـ. كيف يؤثر التشكيل على سرعة القراءة ؟
- و. كيف ينبغي تسهيل عملية الانتقال إلى الكلمات غير المشكّلة ؟
- ز. من تجربتك، ماهي الملامح النحوية والبنائية المتشابهة أو المختلفة بين اللغة العربية الفصحى واللهجات في بلدك (مثل الإقتران، والضمائر، الاستخدام السائد للأفعال والأسماء)؟ وكيف يتم التعامل مع هذه الخصائص في المناهج الدراسية؟
- ح. كيف يؤثر ازدواج اللسان عند إزالة الحركات (التشكيل)؟
- ط. ماهي الحركات التي يمكن إزالتها بأمان تدريجيا (على سبيل المثال يمكن أن تترك الحركة على الحرف الأول و إزالة الحركة من الحرف الأوسط)
- ي. ما المفردات أو الصعوبات النحوية التي يواجهها الطلاب في السنوات اللاحقة والتي قد تحول دون فهم نصوص أكثر تعقيدا؟

20. هل هناك أي معلومات أخرى لم نسألك عنها و تود أن نخبرنا بها لأهميتها لهذه الدراسة؟

الباحث: أشكر الضيف لوقته الذي قضاه في المقابلة.

Annex D: Researchers and Interviewees (by role)

Researchers:

Amal Nasrallah—Egypt

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Mhammed Abderebbi—Morocco

M. Mhammed Abderebbi, Ph.D.
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All have worked with, for, or on education projects funded by USAID in their respective countries; all are known to RTI and/or the research director and have solid research experience.

Interviewees

Lists of Interview Subjects

Egypt

Position
Undersecretary of the MOE in Giza, project manager of Education Improvement Program in Early Childhood and former head of Basic Education
Head of Early Grade Reading Unit, MOE
Senior Arabic supervisor at the Inspector General Office and head of Early Grade Reading Unit at Giza Governorate
Arabic teacher and early grade reading coordinator, Cairo
General manager of General Education, Giza Governorate
Arabic counselor, MOE
Arabic supervisor and early grade reading coordinator, Alexandria
Arabic teacher and early grade reading coordinator, Cairo

Iraq

Job title	Area	MOE
Head of school /Expert	Baghdad Karek	DOE/Karak 2
Head of school /TOT/Trainer	Baghdad Rusafa	DOE/Rusafa 2
Curriculum developer	Baghdad	Arabic/Curriculum
Arabic teacher	Karak	DOE/Karak 2
Arabic teacher	Rusafa	DOE/Rusafa 3
Inspector	Rusafa	DOE/General Education
Director general/head of Arabic language	MOE-Baghdad	Curriculum
Head of researcher unit	Baghdad	DOE/General Education

Jordan

Occupation	Place of work	Date of interview
Professor of child development	Department of Curriculum and Teaching Methods, Faculty of Education, University of Jordan	Oct. 6, 2013
Teacher of second grade	Public elementary school (public elementary)	Oct. 8, 2013
Head of Arabic language department	Curriculum department/MOE	Oct. 24, 2013
Head of curriculum department	Curriculum department/MOE	
Head of teacher supervision department	MOE	
Head of exams and assessment department	Exams and assessment department/MOE	Thursday, Oct. 31, 2013
Head of center of educational training	Educational training center/MOE	
Minister of Education	MOE	

Morocco

Position	Education Level	Date of Interview
Primary school teacher	University	Oct25, 2013
Primary school teacher	University	Oct25, 2013
Primary school teacher	University (Bac +4)	Nov second, 2013
Primary school inspector	University	Nov first, 2013
Primary school teacher	University (Bac+3)	Nov third, 2013
Primary Education Director for the past 7yrs (with a 29 years of teaching experience)	Baccalaureate	Oct 26th , 2013
Currently responsible for follow ups in the informal education directorate at the Ministry of National Education (Previously a teacher, then a director for primary education for 18yrs and was an education representative in the USAID project Aleph for 4 years)	University (+ Diploma from Canada)	Oct 29 th , 2013
Primary school teacher for 23 years and a teacher for street children at Baiti (My Home) Association and an official at the Education Affairs Department for 7 years	Baccalaureate	Oct 27th , 2013
Primary School Inspector	University	Nov third, 2013

Yemen

1. Arabic language school teacher
2. Head of Arabic language department at Education College, Sana'a University
3. Arabic language school teacher
4. Head of Training Unit MOE
5. Arabic language teacher trainer, Al-Shwkani Institute, MOE
6. Head of Yemen Early Grade Reading Program, CLP Yemen
7. Arabic language school teacher
8. Arabic language supervisor, MOE
9. Arabic language school teacher

Regional

Experts interviewed by telephone by Helen Boyle and Samah Al Ajjawi:

Reading expert/international consultant—Egypt, Jordan, and Lebanon (one per country)

Queen Rania Teacher Academy staff, Jordan

Annex E: Interview Summary and Analysis

I. Introduction

As part of the Topical Analysis of Early Grade Reading Instruction we conducted a brief series of interviews with stakeholders in the education sector in the five target countries (Egypt, Iraq, Jordan, Morocco, and Yemen) as well as with some experts from other countries in the region.

A researcher in each country—Egypt, Iraq, Jordan, Morocco, and Yemen—conducted a series of face-to-face interviews with a variety of stakeholders in the education sectors in those countries. The stakeholders were almost all formally focused on the teaching and learning of early grade reading in public schools, but to varying degrees. Some were early grade Arabic teachers, some were inspectors, some were state/governorate ministry officials, some were central ministry officials (from the Arabic section, curriculum and instruction), and some were university professors. The in-country researchers used an interview protocol developed by the research director and the senior researcher. This latter team, based in the US, also conducted phone interviews with four Arabic reading experts in the Middle East/North Africa (MENA), outside of the target countries. A total of 44 interviews were conducted.

The interviewers, whether in-country or over the phone, recorded the interviews and/or took copious notes during the interviews. They were then transcribed and/or typed up for analysis. The interview protocol can be found in *Annex C*. The list of in-country researchers and the list of interviewees by country and professional role can be found in *Annex D*. Data analysis of the interviews was conducted using the qualitative software package NVivo 10. In doing the analysis we were looking for common themes that arose (e.g., methods used), insights that seemed particularly relevant to reading instruction (i.e., the use of dialect in the classroom) and basic information that was difficult to obtain from the review of literature (i.e., what are some of the local promising initiatives in reading).

Limitations of the data collection included having some data collectors who were not experienced interviewers and, of course, the need for translation of the data into English.

II. Results

The results are organized into three complementary sections. Section 1 presents some of the specific replies (by country) as well as a synthesis of the responses to the individual questions across the countries. The specific replies included serve to illustrate the synthesis. We had a variety of informants; some were considered “generalists” in terms of reading and literacy. These results are reported in Part A. Others were more specialized in the teaching of reading; this latter group was asked an additional set of questions on some specifics of learning to read, and their responses are reported in Part B. By presenting these results up front, we give the reader a sense of how opinions and practices compare across contexts. Table 16 summarizes key questions by country.

Section 2 looks at and discusses some of the macro or overarching results that came up in looking at the interview data across countries, including commonalities and differences in policy and practice across the Arabic speaking world.

Section 3 contains the notes of the field-researchers, who summed up the points from the interviews they conducted, for a more in-depth country by country summary of the results. In addition, they give a flavor of the interviews and offer additional thoughts and insights per country.

TABLE 16: KEY RESEARCH QUESTIONS BY COUNTRY

Interviewee Questions	Egypt	Iraq	Jordan	Morocco	Yemen
Is reading taught as part of Arabic or as separate topic called “reading”	Taught as part of the Arabic curriculum with a class for reading in schedule. In reading class students read, identify ideas, meanings of vocabulary, and answer comprehension questions.	Reading is a main part of the Arabic curriculum. Arabic curriculum contains grammar, expression, reading, dictation, or spelling or pronunciation.	Reading, writing, listening skills are interlinked. Reading and writing are taught concurrently (i.e., child sees the letter first, learns its sound and then learns to write it in the same lesson).	Taught as a class on its own with time to teach a large range of texts: letters, literature, and more functional forms of writing. Integral to teaching as used to deduce grammatical and conjugation-related rules.	Taught as a course inclusively with the Arabic language method and use of phonics introduced; No other book is used but the reading textbook.
How is reading taught now? What methods? Are teachers trained, and how? Do teachers use instructional standards?	Recent reforms in reading instruction adopted a phonological approach, curriculum reviewed, teachers trained, regional Early Grade Reading Units established, and reading program training accredited by the Professional Academy of Teachers.	Mixed method approach with a combination of vocal synthesis and composition; focuses on sound and symbol/writing (i.e., phonics). Curriculum change is forthcoming.	Recent reforms in reading instruction adopted phonological approach. Holistic approach used until 2012-2013. New curriculum for 1 st grade introduced phonetics approach, including use of pictures to include words related to a lesson's letter.	No major reform of reading curricula yet. Cited both use of oral and acoustic methods (class repeats the letter multiple times in a loud voice); or teachers focus on memorization and rarely use acoustic recordings for letter, pronunciation or vowel.	Recent reforms in reading instruction adopted a phonological method. Criteria exist for teachers on reading instruction methods. Many use chants / songs, quizzes, repetition, follow-up on students' homework, error correction, etc.
Are grade teachers trained explicitly in teaching the component skills of reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension)?	Explicit training underway for grade 1-3 teachers; tied phonological approach.	More general pedagogical training provided not directly related to reading.	More general pedagogical training provided not directly related to reading	More general pedagogical training provided not directly related to reading	Training efforts underway, including behavioral goals with respect to reading and methods or ways of teaching it.
Does your country have reading standards for pupils?	Standards for Arabic language, but a fluency rate for each grade not specified in standards. Standards address loud reading, silent reading, and reading with tashkeel. Standards were reviewed in 2012 with use of new methods. No benchmarks for each grade.	No benchmarks by grade and no official, national reading standards. Some Iraqi respondents insisted there are standards but the descriptions of them indicated that these were school-level standards and not national standards with indicators and benchmarks.	No benchmarks by grade and no official, national reading standards. School performance reports for students encompass skills/learning outcomes for which teachers determine students' achievement level (high, medium, satisfactory, or unsatisfactory).	No benchmarks by grade and no official, national reading standards. For the lower levels students are asked to read the letters and write them down. There are no unified criteria in use.	No benchmarks and no official, national reading standards. No criteria adopted for reading but rather developed by teachers. Fluency between students and classes and levels vary (e.g., students pronounce 30 words in about one minute in 1 st grade; 40 words in the 2 nd grade, etc.

Overview of Replies By Question: Generalists

21. Tell me what you remember about learning to read (in Arabic). What was the most important factor in your experience?

There were generally two types of memories reported, both of which do shed light on the process of learning to read that still seems to predominate in Arabic speaking countries. Several respondents cited the Qur'anic school as their first memory of reading and /or writing. Those who went to a Qur'anic school all said they knew their letters, and most said that they knew how to read and write by the time they went into school.

Egypt: I learned in “el-Kotab” pronouncing the sound of the letters and then writing them, but there was not much attention given to ‘tashkeel’. (E4)

Morocco: I still remember how I used to spell the words letter by letter. At the beginning, the Qur'an was a key in my education; that was how I learned all the letters. (M2)

Morocco: I learned the basics for Arabic in the traditional Kuttab near to a mosque and after that in primary school because at that time there was no kindergarten in my town. (M3)

Yemen: I learned how to read first by using the Qur'anic texts (pertaining to the Qur'an), the hijaa' method was used. After that, I learned the Qur'an. That's why when I started my elementary school, in the beginning of the revolution, I was admitted to the second class directly and I skipped the first. There were many factors that helped me learn reading. My dad was one of the Qur'anic teachers, so I got to learn how to read well, and that was what helped me master reading and teaching reading itself at an early stage. (Y2)

Yemen: I started with religious school, and then my elementary school. During my religious education, I learned how to pronounce letters and read the Qur'an, which played a major role in my learning of reading and writing. (Y5)

These traditional schools remain active in many of the countries we've look at and are generally attended as preschools or “after-school” schools. While the tariqa hijaiyah is mentioned as a method of teaching in one example above, others refer to a focus on pronunciation.

Some traditional Qur'anic schools did make use of writing. This was actually very common; more modern Qur'anic schools, over the last 20-30 years have focused more on oral recitation less on writing. Nonetheless, given the research on how exposure to MSA has proven to be effective in helping children learn to read in MSA, it is possible that both variations of the Qur'anic schools did help children to learn to read.

The second set of reading memories revolved around learning in school. Answers here were varied, most likely reflecting different learning styles of the respondents. As the respondents are all successful and educated, we might also infer that they were able to adapt to the method they were faced with, even if it was not “ideal” for learning to read, by today's standards.

Egypt: I learned reading through learning letters and ‘tashkeel’. I also learned how to form words from letters. This way was very effective in making me understand the meaning of the words since in Arabic many words have the same spelling, but the difference in ‘tashkeel’ makes the difference in meaning between one word and another. As I grew up, I had no problem with reading and writing in Arabic. (E6)

Iraq: I have learned in Arabic language how to link the voice and the image of the letter.

Morocco: When I first entered school, my education took a new path and new ways, my textbook became the key factor in my education since it contained illustrations to what my knowledge lacked at the time. This helped me understand the words first and then learn how to write them. The book was in chapters and had the letters and the words written in big print which facilitated my comprehension and writing. (M2)

Yemen: I remember that I learned reading by the hijaaa¹³, pronouncing each letter at a time and combining the sounds into one word at the Baghdadi base, for teaching professors. The most important factor in my experience is the sound that I would hear when I was awake or sleeping, I used to even pronounce the letters in my dreams, I saw myself reading and listening and after that came the great amazement of how I was reading words...(Y7)

The variety of responses above is fairly typical of the variety of memories shared. Respondents reported that they were taught the letters—the form or shape of the letter. Many reported that they were taught short vowels with the letter (consonant) and made to memorize the sounds (i.e., ba, bi bu, ta ti, tu etc.), as E6 reports above. Some reported that they were taught from “general to specific” in that they would look at words and memorize them and use those to derive letters. One mentions the aid of illustrations. Combined with the responses from those who went to a Qur’anic school, it does seem as though many clearly recall being taught the letters and letter sounds, albeit through a variety of approaches.

22. Is reading taught as part of Arabic or is there a separate topic called “reading”? Be as specific as you can about where reading is explicitly included in the curriculum.

Reading fell under the umbrella of Arabic Language in all the countries we looked at. Under that rubric, in some places such as Morocco, “reading” was its own class.

Egypt: Reading is taught as part of the Arabic curriculum, but there is a class for reading in the school schedule. During the reading class, students read, identify ideas, meanings of new vocabulary, and answer some comprehension questions. (E6)

¹³ This is an example where the way the *tariqa hijaiyah* is defined differently by different people. Most have not characterized it as a phonics-based method, although it did focus on letters. Whatever the label, clearly letter sounds were important to this respondent.

Iraq: Reading is considered a main part of the Arabic curriculum. The Arabic curriculum contains grammar, expression, reading, dictation, or spelling or pronunciation. (I1)

Jordan: It is not possible to separate learning reading from other language skills. Skills such as reading, writing, listening are interlinked. Reading and writing are taught simultaneously so the child sees the letter first, learns its sound and then learns to write it but all in the same lesson. (J4)

Morocco: Reading is considered an important inseparable constituent of the curriculum for teaching Arabic language. It is taught as a class on its own and allotted plenty of time to teach how to reach a big range of texts: letters, literature, more functional forms of writing. It may be considered an inseparable element in teaching because the teacher uses it in order to deduce grammatical and conjugation-related rules. (M2)

Yemen: Reading as a course was taught inclusively with the Arabic language method, and moreover, there was no other book but the reading textbook. (Y3)

Whether or not the subject of “reading” has a separate slot in the timetable, it seems that across these countries, with the exception of perhaps Egypt, “reading” contains a lot more than just “reading.” This does illustrate a trend we will discuss below and that the discourse on reading is just beginning in some of these countries and definitions and terminology and meanings are not uniform or collectively understood. Interviewees (with the exception of Egypt and Jordan) did not communicate a strong grasp of the component parts of learning to read; even in Egypt and Jordan, there was much discussion of the phonetic approach but less about other important components. Egypt, Jordan, and Yemen are now all implementing the phonetic or phonological approach. (Both terms were used frequently and somewhat interchangeably.) Egypt has an advanced start on the others but Jordan and Yemen seem to be moving quickly to implement the phonetic approach, under ministry initiative and with support from the educational policy makers.

23. **How is reading taught in your country now?** What methods do teachers use? How are they trained? Are there instructional standards for teachers, specifically related to reading? Can you talk a bit about what is contained in the standards (i.e., what practices are teachers required to implement in their instruction)?

Teaching Methods:

The Egyptians, Jordanians, and Yemenis all discussed their recent reform in the way reading is taught. All have adopted the phonological approach, although it is in varying stages of implementation in each country. It is newer in Jordan and Yemen than in Egypt but it seems to be taking root quickly in each place.

Respondents from Egypt talked about their switch to phonics:

Egypt: We tried this [whole word recognition] in Egypt when the focus was more on writing words correctly; children were memorizing the way a word is written depending

on pattern recognition. ‘Tariqa hijaiyah’ has been adopted for a long time in Egypt as a way to foster dictation, but it didn’t help reading for many children. (E6)

Egypt: Pattern recognition alone without phonological awareness is a big disadvantage. It doesn’t help children and get them to memorize. Arabic language is a spoken language, so the sound should come first and then the form. (E5)

Respondent E5 points out that the tariqa hijaiyah focuses on memorization of the form without the sound, and Egyptians have moved decisively—officially—away from that approach as respondent E4 emphasizes.

Egypt: There have been some attempts before the phonological approach, but they did not survive because they were mostly individual attempts, but the support given by the Ministry to the new teaching method made it a formal one. As a result, curriculum has been reviewed, teachers have been trained, the Early Grade Reading Units have been established, and the training program has been accredited by the Teachers Academy. What is more important is that the new method is really a useful one in teaching reading and children have improved in reading in Arabic as a result of this method. (E4)

An Iraqi respondent characterized the country’s approach as a combination of vocal synthesis and composition (I1), which seems to be a very belabored way to say that they focus on sound and symbol/writing (i.e., phonics). Iraqi respondents were not very vocal or descriptive but from what they said, it sounds like there is some mixed method. (They also referenced a coming curriculum change.)

Jordan respondents pointed to the new phonics approach.

Jordan: As for the approach used to teach reading in Jordan, the holistic approach was used until the last year. As from this academic year, the MoE developed a new curriculum for first grade where the phonetics approach is utilized. Teaching reading, with the use of the new approach, includes presenting pictures to children that include words to encompass a specific letter that children are going to learn in that particular lesson. For example, if the lesson is about teaching the letter ‘a’ then a picture of a rabbit ‘arnab’ is presented to children, and the teacher focuses on the sound ‘a’ when reading the word ‘arnab’. (J4)

The Moroccan replies were perhaps the most interesting. Morocco is not in the middle of a reform of reading curricula or methods, but it has been going through many changes in the educational establishment of the ministry. The Moroccan teachers essentially contradicted each other:

Morocco: The adopted way here is the oral/ acoustic, where all the class repeats the letter multiple times in a loud voice. (M4)

Morocco: Most teachers focus on the memory and memorizations, seldom do they use the acoustic recordings to focus on the letter, how to pronounce it, and the way it changes with vowels and with its place in the sentence. (M5)

This suggests, as other respondents said, that there is a guidebook but teachers generally use the methods they are comfortable with. One teacher admitted:

Morocco: We use both ways [phonics “acoustic” work and memorizing words as forms], but mostly we apply completely the grammatical rules of the Arabic language, which is most common. This affects the students negatively, because we burden them with memorizing a lot of rules. (M7)

Of all the countries, Morocco was the most “different” in terms of its teaching approach for reading.

While Yemen is moving ahead with an “early grade reading approach” as they are calling it, (through the USAID funded CLP project), it was not always clear that it was completely understood by the rank and file, such as the first grade teacher quoted below:

Yemen: The method that was used to teach reading was through teaching the sound of the letter and its vowels. This has its advantages and its disadvantages. The old [way] was not detailed, it did not include the vowels of the letter in a detailed manner, and the reading texts were not enough [sufficient]. In respect to the early reading program, it has its advantages (teaching the student reading); its disadvantages are: the students do not get to write as much now, which leads to weak writing skills. In the past, reading and writing were present together in one book. (Y4)

An Arabic language supervisor was enthusiastic though:

Yemen: I think that there is an effect for the phonics. I told you I learned using the tariqa hijaiyah but it mostly used the awareness of sounds. But I used to see in my dreams the letters and I would repeat them with a melody. This effect of phonics on me is a reality and there is no reason why we should not combine the two methods [tariqa hijaiyah and phonics]. The letter can be taught first, and then the student is introduced to the name of the letter and to the ways of manipulating it. Effort should be put, and the result would be positive for sure. (Y7)

Teacher Training:

Again with the exception of Egypt where specific teacher training in reading pedagogy is being delivered, the other informants said there was no training on the teaching of reading per se. Some said they had received training on pedagogy in general but not on reading. (This is discussed more in the next question.)

Teacher Standards:

Even countries like Egypt, which is well down the road in its implementation of standards and of the new reading approach, has had trouble with teacher standards.

Egypt: There are standards for teachers and content standards for Arabic language but teacher training did not used to be aligned with those standards. Now, when the GILO

program adopted the phonics method in teaching Arabic to early graders, we started getting nearer to those standards. (E7)

Essentially, standards seemed to be a somewhat abstract concept for the stakeholders we interviewed. Many said they existed but could not say where they had seen them or what they contained. Those who did elaborate on teacher standards were not referring specifically to standards for teaching reading. As the comment from Yemen illustrates, more often than not, respondents were thinking in broader terms, describing a mix of methods and a code of conduct.

Yemen: Yes, there are teaching criteria for teachers specifically for reading and its teaching methods. For example, the teacher uses many methods: chants/songs, quizzes, using available means, using repetition, follow-up on students' homework, error correction, encouragement, and maintaining high moral to make reading amiable. (Y6)

The teaching of actual reading skills or components was not highlighted in the vast majority of responses from our interviewees. In general, they described teaching methods for reading that were student centered or exemplified active learning, but could have pertained to almost any subject. One Yemeni respondent did say that the teachers had to model pronunciation for pupils, and as such female teachers could not cover their faces while teaching. It was not clear that there was an actual policy related to wearing a face veil or not when teaching early grade Arabic in Yemen.

In terms of performance requirements under standards, there were references to teacher guides and inspections, but not one person definitively declared that any one thing absolutely had to be done that was specific to reading, except for a general requirement to implement the approved approach.

24. **Are grade teachers trained explicitly in teaching the component skills of reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension)?**
Where do they receive this training? (Pre-service? In-service?)

The answer to this was a resounding no, although Egypt has started to implement specific training with its early grade teachers and has trained first and second grade teachers. This training was very much tied to the phonological approach and one respondent did express the hope that more training on other aspects of teaching reading would be forthcoming:

Egypt: After emphasizing phonological awareness in grades 1 and 2, we look forward to programs that foster phonics, morphology, reading comprehension, fluency, and dictation in addition to the other language skills and to train teachers on this new program. As happened with the phonological awareness, we will need a guide for training teachers in these areas and we can later insert the teaching principles of these areas in the Arabic curricula. (E2)

When training was discussed in the other countries (other than Egypt), it was clear that what was offered was more general pedagogical training, not related to reading. This was a typical response across the countries:

Yemen: Yes, we are trained but not enough. I was only trained in “behavioral goals and others,” but with respect to reading and the methods or ways of teaching it, we did not receive any training other than the early reading. (Y3)

25. **Are children taught to read and to write simultaneously or does one precede the other** (i.e., do children write letters as they learn to say them and identify their sounds? Are children taught to write frequently-used words?)?

These answers varied by country to some degree. In Egypt, it seems as if writing is being deemphasized a bit because it was focused on heavily under the “holistic” approach.

Egypt: Under the holistic approach, 1st graders were taught to read and write simultaneously. They were taught letters (not sounds), words, and sentences. Moreover, some grammar was also taught, such as the articles for male and female. Under the new method, phonological awareness precedes so that children learn all the Arabic sounds with the different vowels and ‘tashkeel’, they then move to words and learn how to divide the words into syllables in order to read it. So reading is in focus first and slowly writing is introduced. (E6)

All of the Iraqi respondents said that reading and writing are taught together. The same seemed to be true in Jordan (see the example of the rabbit lesson above) where writing is integrated; however, there was concern in Jordan that the holistic method had overemphasized writing and they wanted to avoid that. Indeed, across countries, including Yemen, many respondents said that in the “old days” writing was emphasized at the expense of reading.

In Morocco, reading and writing are in different classes. That is, they are taught in the same grade and the same year but not as a unified subject.

26. **How well are pupils in your country learning to read?** Why do you say this? Can you cite recent data and/or some examples? Within educational circles in your country have you heard concern expressed about pupils’ reading levels? If yes, can you tell us what the concerns are?

This question did not generate many positive responses. Opinions were very negative for the most part. Most were based on personal observation or experience, although in Egypt, Jordan, and Yemen, some respondents did cite the EGRA test results. An Iraqi respondent stated that 70% of the pupils do not perform well in term of expression, pronunciation, and dictation. Moroccan respondents cited personal observations about how only a small percentage of children in a given class could actually read or write.

In terms of specific concerns, both Yemeni and Jordanian respondents focused on the need to deliver training on the new phonological approach, as illustrated by the quote below.

Jordan: There is a concern regarding the delay in providing training to teachers on how to teach the new curriculum. Training material has been prepared, but due to miscommunication between the different departments of the Ministry, the delivery of this

course has been delayed. So teachers have started to teach the new curriculum before being trained on how to teach it. (J7)

A couple of Moroccan respondents raised an interesting concern about automatic promotion:

Morocco: Yes, there is concern in the educational medium in Morocco regarding the decrease in reading abilities in students. If we take level 6, you will find in the class somewhere between 4 and 10 students unable to read one sentence. Who is responsible for this? It is the ministry that calls on us to necessarily pass all the students in the class; this is called “the school of success,” and therefore everybody passes even when their abilities are weak. (M4)

One trend we did notice was that by and large, across countries, much “blame” was laid on the teachers, and their level of training and competence seemed to be a big concern not only to inspectors and policy makers but to the teachers themselves.

27. **Does your country have reading standards for pupils? If yes, what is the desired fluency rate for each primary grade?** Do pupils meet these standards or do you see challenges? Do you find that pupils meet comprehension standards, (if these exist)? Why do you say this (i.e., is it based on data or evidence or your own observations)?

The short answer seems to be that there are some official Arabic standards in Egypt but no benchmarks by grade and no official, national reading standards in any of the other countries.

Egypt: There are standards for Arabic language, but a fluency rate for each grade is not specified in these standards. (E3)

Egypt: Yes, there are standards and indicators for reading in the content standards that address loud reading, silent reading, reading with tashkeel, and these standards were reviewed in 2012 after the adoption of the new methodology. But there are no benchmarks for each grade. (E5)

In general, most of the countries seem to rely on teacher evaluation of student performance. Iraqi respondents insisted there are standards but the descriptions of them (vague as they were) seemed to indicate that these were school-level standards and not national standards with indicators and benchmarks. Jordan, Morocco, and Yemen seem to have similar policies. Interestingly, the respondents in Iraq, Jordan and Morocco were not focused on oral reading fluency rates, while respondents in Yemen were, although they had varying estimates of what the standard should be.

Jordan: In Jordan we have school performance reports for students that encompass skills/learning outcomes for which teachers determine students’ level of achievement (high, medium, satisfactory, or unsatisfactory). This report is not detailed enough to show a student’s performance in the specific skills of reading such as fluency and comprehension. We have begun to develop ‘performance indicators’ for each school subject including Arabic language, which will help teachers assessing students’

performance in many skills. However the first three grades have not been finished because we lack experts and professionals in this area. (J1)

Morocco: For the lower levels, we ask them [pupils] to read the letters and then to write them down. There are no unified criteria that the ministry adopts. For example, I use the non-formal decision of the Ministry of Education, and they work for me. I sometimes improve them a little, but I think that they are written in a highly professional manner. (M7)

Yemen: There are not any specific adopted criteria for reading. All the criteria used are developed by teachers. Fluency between students, classes. and levels vary. For example, for the first grade, the student should be able to pronounce 30 words in approximately one minute; in the second grade 40; and it goes this way until it reaches higher averages for advanced classes. (Y2) [These are not official standards but the respondent's opinion.]

There were varied opinions on standards for pupils in Yemen:

Yemen: Yes, there are criteria used to evaluate reading. The average is 10 words per minute for first to third grade classes and this number increases with the classes going higher. If the student gets good basics for reading from the start, he will be able to reach this level of 10 words, if the basis of his learning was right and there was follow up. (Y3)

Ten words per minute seems awfully low, and it was not clear if this was an intermediate goal (since rates were very low on the Yemeni EGRA), as it would not seem to be appropriate as a national standard.

28. **How does diglossia impact the process of learning to read for children in your country?** How is diglossia addressed to facilitate the acquisition of reading skills (i.e., is morphology emphasized to point out the links between dialect and MSA)?

While we vetted the interview questions with the our data collectors and asked them for feedback or questions, there was nonetheless some confusion over the term itself (diglossia) and many respondents (mainly in Iraq and Morocco) took it as referring to second languages. In Morocco, answers frequently involved reference to Tamazight and the problems of children who were not Arabic speakers coming into school. In Iraq, respondents said there was no problem with diglossia, as all were Arabic speakers. For those who did understand the term to mean a main language and a dialect (or a high and a low form), responses were divided. Some respondents did not think it was a big problem in children's success in learning to read as they reported that their dialect was close to MSA. This was particularly surprising in Morocco, where the dialect is often characterized as being the furthest away from MSA by other Arabic speakers.

A potentially important area emerged from this question though and that is the question of "language of the classroom." Most Moroccan respondents said that children do not hear and use enough MSA because teachers tend to use dialect in the classroom when they are giving directions or explaining things to pupils. They further said that other subject teachers do not

reinforce MSA because they teach in dialect or use it quite a bit in the classroom. This concern (lack of exposure to MSA) was echoed by a Jordanian reading expert as well.

Jordan: Diglossia hinders the acquisition of reading because we talk and teach children using the dialect. Diglossia would not affect learning to read if we introduce the MSA to children in an appropriate way. For example the child should be exposed to the MSA enough time before he starts learning to read in it. (J6)

This is very much in line with evidence from the research. It seemed clear that this was not an issue about which our respondents were well informed, and it seems as if it would be worth pursuing and clarifying so that teachers and parents could better address any reading problems related to diglossia.

Respondents from Yemen were the most adamant that teachers should use MSA, but almost everyone allowed that teachers should translate things into dialect if children did not understand.

Yemen: It is wrong for the Arabic language teacher to use dialect unless when necessary; for example when the teacher uses a simplified language to clarify a word. The teacher should try not to speak dialect unless his students find it difficult to understand the meaning, then it is permissible to use the spoken tongue. The teacher should stress to his students that the correct way of pronouncing the word is the formal one. The same goes for an English teacher trying as much as he can not to use Arabic in class. Yes, morphology can be used to relate between Arabic and the dialect during teaching. Most of the vocabularies in dialect are originally Arabic formal words. Students' attention should be brought to the fact that our language, the Arabic formal language, is the mother language and that these words are versions of it. (Y9)

It was clear from the responses across the countries that the formal language is respected, almost revered, and the dialect(s) are not.

29. **How does the fact that many pupils study a second language (usually with a different alphabet) in school from an early grade impact their learning to read and write in Arabic?** Is this a help or a hindrance? Can you give examples or cite recent data/studies to support this?

There were decidedly two camps in relation to this question. One was the “learn Arabic reading and writing well first” group, and the second group felt that simultaneously learning another language did not detract from learning to read in Arabic and might help. In Morocco, much mention was made of Tamazight and the fact that many Berber-speaking children study Arabic, and it is not their first language. (Many now learn to read and write in Berber, as it is a national language.) One person from Jordan expressed some familiarity with the literature and her opinion was:

- **Jordan:** Learning a second language does not hinder learning reading in a child's first language. Many articles on this issue showed that learning a second language assists learning reading in the child's first language and vice versa. (J6)

Still, overall opinions were mixed and did not follow any country specific pattern.

30. What are some issues you have noticed regarding the transition from reading in Arabic to reading in a second language, including issues with language script?

Responses to this question included students getting confused about the direction they should write in, use of vowel markings, literal translation, and code switching (mixing two languages).

Egypt: Some difficulties such as short versus long vowels, tashkeel, and “el hamza;” these are the main features that distinguish the Arabic language. (E4)

Morocco: The problem is the students write the French language using the Arabic script. When they want to express themselves, they translate from Arabic; the result is something that is neither quite Arabic nor French. (M1)

Yemen: The problem is in introducing some foreign words while the pupil is speaking Arabic, this phenomenon is wide spread today, and it has an effect on the mother tongue or Arabic. The pupil should be proud of Arabic. In addition to this, the job market necessities that pupils speak a foreign language. (Y8)

Respondents of course cited the fact that Arabic is written right to left, and many second languages studied in the Arabic-speaking world (like English and French) are written left to right. However, respondents did not really provide pithy examples of this being an ongoing problem.

31. Research suggests that helping children make morphological connections (identifying word roots), using short vowel markers for longer in the early grades and exposing children to MSA in pre-school all contribute to better reading in Arabic. **Do you think the teaching of reading in Arabic in your country takes this into account?** Can you provide examples of projects or initiatives that demonstrate that?

This question got varying replies and was often not fully answered. Most respondents said that they thought their country took account of some of the issues raised (morphological awareness, retention of harakat for longer, and early MSA exposure).

Egypt: Following the newly-adopted method made children feel at ease with the Arabic language. They know how to read any word, no matter how long or how new it is, by dividing it into syllables. This makes them interested in the language. I noticed their interest increased in their Arabic class, and they are more interactive with their teachers, so morphology exercises such as identifying word roots are now received more positively than before when they were studying the Arabic class by heart. (E6)

Jordan: The curriculum is taking into account using the tashkeel until the tenth grade, and after that using the tashkeel is subject to different factors such as the use of unfamiliar or difficult words. Also the curriculum introduces the MSA as early as kindergarten level to provide children early exposure to the MSA. (J4)

Yemen: Morphology helps finding the root of one word which carries more than one meaning, and it contributes widely in teaching reading by using the different short vowels. For example, ("ع, ل, م" عَلِمَ , عَلِمَ , عَلِمَ , عَلِمَ , عَلِمَ from the word to know: he knew, it was known, science, scientist, known, knowledgeable). [All come from the same root word, and the child can access meaning better if he or she knows the root.] Unfortunately, this is not taken in account when reading is being taught despite its importance, and this is a rarity in teaching morphology. (Y8)

Respondents seem to feel much more comfortable commenting on “tashkeel” or exposure to MSA than morphology, in terms of instruction. This question highlighted again the fact that very concrete discourse around the development of specific instructional strategies for teaching reading is just beginning and that evidence of what things impact reading success (like morphological awareness) is not well known, generally.

32. As an educator/expert in contact with other educators in the Arab world, **are there any sub-regional similarities or differences of note in the teaching and learning of reading in Arabic?** (Maghreb vs. Mashreq, etc.)

Other than a few compliments to Palestine, where literacy is 100%, there was not a lot of knowledge expressed about how reading is taught in other Arabic speaking countries. One school principal did draw some interesting comparisons:

Morocco: There are countries that succeeded in their educational path because they focused on teaching reading, writing, and grammar rules and because of the quality of their curriculums, for example Qatar, Syria, Oman, and Palestine. Their system is strict whereas ours is different; it does not focus on reading and relies more on quantity. We provide our students with a massive amount of information. As a principal of a school, when I go into classes, I find a lot of teachers using cliché ways in teaching. (M5)

What was interesting was that everyone thought everyone else's system was better, and there did not seem to be a lot of concrete knowledge about what other countries are actually doing.

- 33. What early grade reading interventions are currently being implemented in your country, either by the ministry, donors, or others?**
- d) What results are expected from these interventions? What have you seen so far? What data exist to document outcomes or results?
 - e) What seem to be promising approaches for instruction from these initiatives?
 - f) Are there future initiatives planned that will focus on reading?

The countries that highlighted initiatives were the three that are actively moving to a phonics-based approach. None of the Iraqi or Moroccan respondents could point to any specific reading initiatives that were ongoing or planned. The interventions that were highlighted were:

Egypt: The GILO program piloted the phonics methods to early graders in four governorates. In light of the success of this method, the Ministry of Education adopted

this method nationwide and established the Early Grade Reading Units within the hierarchy of the Ministry of Education. These units are headed by Early Grade Reading Coordinators who are working closely with the Arabic counselor (at the Ministry level), inspectors general, and supervisors (at the governorates level) in training all Arabic teachers for grades 1-3. (E2)

Jordan: One of the main current interventions to improve the process of learning reading was the development of the new Arabic language curriculum. The Ministry of Education also requested that all administrations coordinate together to develop training programs for teachers to help overcome students' weakness in reading. We are also developing the assessment methods and materials where more assessment methods are used, such as the genuine assessment, which focuses on evaluating the student's performance and not only his achievement. (J1)

Yemen: The early reading method is applied by the Ministry of Education in cooperation with USAID and the German project for improvement. This year the national bank joined the efforts done to improve reading. The curriculum was tested on 883 schools during the year 2012. This year, more schools joined; it was tested on 1092 schools, and there are future plans to apply this in republic schools. UNICEF is also expected to join the allies of this project. There are strong signals until now based on the positive results of last year's evaluation.

There are statistical data, from what I remember: in recognizing sounds of letters, there was a result of 195% of improvement in the tested schools, as well as in controlled schools, which only targeted 37%. Reading aloud fluency improved at 166% for the tested schools, as it was at the controlled schools with a 93%. For all language skills, the tested schools were clearly advanced over the controlled schools with minor variations in growth percentages among skills.

In addition, respondents (mainly our international experts) mentioned the Arab Thought Foundation's work funding innovative projects in reading like Arabi21, the Queen Rania Teacher's Academy in Jordan, and the IQRA Association in Beirut, which works to encourage the habit of reading.

34. **Can you share any examples you know of what could be considered "best practice" in teaching reading in Arabic?** Have there been any studies to document the success of these examples? Do you know of any data that exist to demonstrate improved reading?

Many replies to this question were general, such as "having a good teacher." Some respondents especially in Iraq, Morocco, and Yemen simply said they were not aware of any best practices. There were a few interesting observations though:

Egypt: I am concerned with the identification of best practices and arranging across-schools visits for these best practices. The surprising thing is that since the implementation of the phonological method with 1st grade last year, some of these best

practices are found in educational zones where Arabic results used to be very low before such as “el-waraq” and “el haram.” Arabic teachers there are using many activities during the lessons. They apply active learning as it should be in teaching the sounds of the letters, getting students to correct each other and practice and apply what they learn in different ways. I saw that myself, and I was so happy. (E3)

The fact that the teachers could combine this new information on how to read with the pedagogical training they’ve had on active learning is encouraging and suggests that as new methods are introduced, teachers should be encouraged to integrate practices in a way that makes sense and will help them grow as teachers.

Morocco: I will use the experience of the school of Abi Alala’ Al Maari in Sidi El Barnousi, where level one was taught by teachers who possess the qualifications of the success generation school. The principal tried to lessen the fact that the school was overcrowded, and he was very strict in his ways, in addition to that the educational inspector was also strict. There is a lot of respect for the institution, the class, and cleanness. The teachers do their jobs just perfectly; this is why this school has a good level of reading. Bu when these students go into preparatory school, we find the institutions in great hurry to welcome them to its arms. The students speak the formal language, and the teachers only use the formal language to teach. (M7)

The Moroccan respondents in general seemed to crave some sort of systemic reform, and the example that one of them pulled up seemed to us to reflect a vision of what our respondents wanted to see across the country—a supportive system whose pieces worked together for quality outcomes.

Yemen: It is better to use variety and surprises as factors to encourage learning; for example using light methods to attract students’ attention, teaching the letters by listening to chants and songs demonstrating these letters, children’s shows that can make Arabic reading and Arabic language amiable to the students. (Y9)

Yemeni comments on best practice tended to focus on the pedagogical and reflected a common theme of making learning appealing and inculcating a love of the Arabic language.

35. How are reading levels currently assessed in your country?

Right now, assessment methods are either the use of EGRA or the more common teacher assessment of pupils. One Egyptian respondent pointed out that, other than EGRA, there was no formal assessment of component skills other than comprehension:

Egypt: Only through EGRA as reading is not directly assessed in schools but reading comprehension is assessed. (E5)

Jordan: It is through reading tests prepared by teachers. (J4)

Morocco: Through having the students read letters, words, and sentences. We try through specific exercises to find out whether or not they can read. (M4)

Yemen: Reading is now assessed based on criteria developed by teachers themselves. One of the difficulties is over-sized classes, where the teacher finds difficulty to focus and to follow up. Currently, in the early reading method, we have monthly and periodic tests. (Y2)

The countries implementing the phonological approach all did make reference to the need for a system to assess reading progress.

36. **Are there remediation programs for pupils who have been assessed as reading below grade level?** Can you describe them or tell us what you know about such programs, in terms of content and instructional approach?

Generally, there were remediation programs in existence.

Egypt started some but there was some concern that there was no standardization. The thinking in regulating these programs is interesting.

Egypt: Yes, there are remediation programs for weak students and they are applied in all schools. However, these programs need to be monitored effectively. Every supervisor used to put a program for weak students in the educational zone; results of these programs vary from one educational zone to another. Now the Early Grade Reading Units are taking over these programs and working to review their content and prepare the right trainers for them. (E1)

Parallel to these efforts, the Ministry started to unify the remedial efforts in schools because there have been different remedial programs adopted by individual teachers and civil society organizations who are helping schools and rotary clubs that help children with reading and writing in Arabic. We are trying to unify these different approaches into one approach because different approaches will have different results that we will realize later in advanced grades. Now, schools are classifying children with learning difficulties in Arabic and prepare plans to help them improve (with a log to document the implementation of this plan). The Ministry is planning to make use of Arabic teachers who were trained on the phonics method to implement the remedial program. As for the material for such a program, we are using the remedial program that has been produced by the Education Support Program (USAID-funded program). (E2)

Iraq also reported having remediation programs, including special classrooms and extended class periods.

Jordan: Schools have resource or special rooms where students with reading problems receive a special program that tackles their problems.

Morocco's efforts seemed more informal than some of the other countries:

Morocco: In most cases, we apply sessions of support and reinforcement to fill the gaps, but this is not enough because of lack of assessment mechanisms, which are not able to

specifically diagnose the problem, and therefore there is a problem in planning procedures for support, and teachers don't have the skills to support pedagogy.

Yemen's approach to remediation was different as well. Additional classes are offered as part of teachers' practicum training, so that children who need help can avail themselves of these classes. It does not sound like they focus on reading though.

Yemen: There are remedial programs for schools and for the Ministry of Education. The remedial programs are training programs, which allot additional classes to teach at schools. Of course, these remedial programs are not the best, or the thing that we should adopt. We will continue to treat endlessly, with our emphasis on the fact that being proactive is better than late treatments.

37. Are there any key policy initiatives underway that affect or will affect how reading is taught in your (i.e., changes in curriculum, school timetables, teacher qualifications, etc.)?

Egypt is implementing the phonetic approach and has taken several policy steps toward its realization. Iraq seems to be contemplating a curriculum revision in reading. Jordan, like Egypt, is in the midst of implementing a program of reforms in how reading is taught, and so is Yemen. Only Morocco seemed to have no policy initiatives underway and one respondent even said he wished the Emergency Plan would return as a sort of initiative.

Morocco: There is no policy in that regard. We did not reach any consensus towards any change in the programs or the curriculums. The names of the ministers change but not the program. Maybe now that a new Minister of National Education is taking over, a return to the old policy is in sight, that which the last minister cancelled.

38. If you were able to organize and fund an intervention to improve reading in your country, what are some things you would do? Why?

In tallying the replies, it seemed that in-service teacher training was the most popular response. Many respondents also mentioned new books, technology, more time for reading, returning to the old methods, a literacy campaign, sharing experience and learning from others, doing away with automatic promotion, parental training, new curricula and materials, etc.

A. Overview of Replies By Question: Specialists

- In what order should letters be taught in vowel Arabic?**

The choices seemed to be according to the alphabet sequence or according to difficulty/familiarity. A reading expert from Jordan thinks that letters should not be taught according to their alphabet sequence, but by similarity of shape so as not to confuse children. (J6) Some respondents said the short vowels should come first and then the consonants, whether in letter order or by difficulty.

Egypt: I don't think we should have a specific order because each letter will be taught with its different sounds, and this does not get affected by a specific order. (E4)

Egypt: I don't believe a specific order is required. We are just used to one order, but I don't think it will make much difference if we are using the phonological approach in teaching one letter with all its vowels before another letter. Another opinion could say that we should start with the most frequently used letters, such as "L," but I don't think it does really make a difference. (E6)

The Iraqi respondents said "in the first grade." The Moroccan responses were interesting in that they really highlighted the "tariqa hijaiyah" method of starting with sentences and words.

Replies varied from "the first weeks of school" to:

Morocco: Letters can't be presented to their Baghdadian order, but have to be presented as words with meanings that are extracted from simple sentences to ensure the linkages and the integration among the components of the Arabic language curriculum. (M3)

Morocco: This should happen from the beginning, and in the middle and the final positions of the words. (M4)

Yemeni responses were similar to those of Morocco and Iraq. The notion that there might be a recommended or most effective order in which to teach the letters seemed not to have been contemplated among either sets of respondents.

- **How is student learning affected by using pattern recognition vs. phonics (tariqa hijaiyah)? Which method is used in your country? Why?**

The replies to this question were similar to replies to the one above that dealt with teaching methods and tariqa hijaiyah. The Egyptian, Jordanian, and Yemeni respondents were pretty much in favor of a phonics-based approach, although it was not always clear that all the respondents properly distinguished between the two approaches. The Moroccan replies were more ambiguous:

Morocco: There is a mix of the two; we use both ways. (M1)

This suggests that the two methods are not clearly defined for this respondent, as it would probably be hard to use both. Another respondent who did distinguish between the two more clearly elaborated a bit such that the answer of "both" made more sense. This does suggest that the respondents we interviewed were unclear on what method is in the curriculum, or this respondent is incorrect about that.

Morocco: The first method is based on repetition and memorization. The second one enables the learner to make the link between the sounds and the letters through gradually learning about the letter in all the forms that it has and in its positions in words (separate, linked, at the beginning of a word, at the middle, and at the end) and the changes that occur to the way it has been marked. The Moroccan curriculum is based on the second method but teachers often apply the first method because it requires more efforts during the session. (M3)

- **What are the effects of tashkeel (vowel set or diacritics) on automaticity?**

Responses to this question were more varied than we expected. (We think the Iraqi respondent answered this question in terms of “what are the effects if tashkeel are removed.”) Generally, the tashkeel were thought to be useful for automaticity, speed, and accuracy, although no one respondent included all of those adjectives.

Egypt: The effects are obvious, as tashkeel helps pupils in dividing and synthesizing words easily, and this affects the reading speed. (E1)

Iraq: Poor pronunciation (I1)

Jordan: Tashkeel, if taught appropriately, should not affect the automaticity. Beginners find tashkeel difficult but also find unvoweled words more difficult. Arabic script is difficult so we need to teach children how to deal with this difficulty. (J6)

Morocco: The tashkeel facilitates reading, respecting punctuation, knowing the text, and understanding it; it facilitates automaticity. (M6)

Yemen : It does not affect speed; it affects the quality of reading. (Y1)

- **How do beginning vs. expert readers see voweled and unvoweled words as they read?**

The replies below were typical. In general, tashkeel supports accuracy and many respondents said tashkeel supports speed as well. Some research from the literature review suggested that tashkeel could slow down speed as there are so many visual cues to take in.

Jordan: Novice readers as compared to advanced readers might need longer time when reading words and texts with the existence of harakat. Advanced readers can read without the existence of the tashkeel as they can predict the harakat from the context, unlike beginners who, because they have not yet acquired the appropriate level of fluency and comprehension, cannot rely on the context to be able to read unvoweled texts.

Morocco: An experienced reader can easily read the unvoweled letters since he knows about grammar, word formation, morphology, and meaning. An unskilled reader cannot yet distinguish the unvoweled letters, words, and texts and cannot therefore understand their meanings. (M1)

Yemen: He will try his effort to read the voweled word by taking it one letter at a time; an experienced student, he will try to be creative in reading the un-voweled word. Concerning the experienced reader, he will be able to read it correctly even if it is not voweled.

- How does tashkeel affect speed? (Answered above.)
- How should the transition to unvoweled words be facilitated?

Jordan: The transition from vowelized to unvowelized words can be facilitated through the gradual removal of the tashkeel. Also, children should be taught to deal with the text as one whole unit, so they comprehend the text as they read it, which allows them to use the context to read the text without needing it to be fully vowelized.

The removal of the tashkeel can only be possible if the harakat can be predicated. For example, passive voice verbs should be vowelized, otherwise they can be mistaken for their past or present forms. For instance, we need to put harakat on the verb (koteba) so as not to be read as (kataba). However, we might choose not to put harakat on this verb if it comes in a sentence where the context reveals its passive tense. Also readers know that in verbs in the past tense such as (darasa) the second letter is vowelized with fat-ha, and therefore it is safe to remove it. As a very general rule, the harakat on the first and last letters are important and not safe to be removed.

- **From your experience, which grammatical and syntactical features are similar or different between standard Arabic and the dialects of your country** (e.g., conjugations, pronouns, popular use of verbs and nouns) and how are these addressed or handled in the curriculum?
- **How do diglossia effects interact with the removal of harakat (tashkeel)?**

Concerns around diglossia and harakat focused on pronunciation. Without the harakat, there was a fear that readers would revert to a more dialectical pronunciation of MSA words.

Morocco: Diglossia affects negatively when the vowels are removed as the learner always pronounces the words in accordance with his language or his local dialect [rather than in accordance with the formal rules of MSA]. (M6)

Yemen: If the reader has read the word when he was young, he will read it the way it is written in his mind. If it is a new word, he might not be able to imagine its harakat, and his dialect might influence this in the elementary classes. (Y1)

- **Which harakat could be safely removed in various grades** (e.g., the first vowel could be left with the intermediate ones removed)? (See above for an additional reply.)

The general sentiment seemed to be to keep the harakat as long as possible and that the middle harakat might be safe to remove in some contexts but the final one should be kept or phased out gradually.

Egypt: The harakat should not be removed at all in the early grades until students become fluent readers, they could be removed gradually but the harakat on the last letter should not be removed during the primary stage. (E1)

- **What vocabulary or syntactical difficulties do students have in later years that may prevent the comprehension of more complex text?**

Responses were varied but generally covered grammar, use of syntax, and vocabulary.

Egypt: How to deduct the meaning of a word from the syntax and how to apply some grammar rules when they write. (E4)

Morocco: The most difficult stage a student might face in the upcoming years is grammar. Usually, students cannot adjust the grammatical rules they have learned accordingly. This is because there are so many rules, and they are not presented in an attractive or facilitating manner in the textbook. (M2)

Yemen: Vocabulary is the hardest part, because as the student grows and reaches higher levels of knowledge, the vocabulary he learns becomes harder. (Y4)

B. Results—Discussion of Themes in the Data

Several overarching themes came through in the interviews. One relates to interviewees' level of knowledge about reading research and reading pedagogy; a second relates to reading instruction and the methods that are currently in use in Arabic speaking countries; and the third relates to the theme of reform on a variety of levels.

Level of knowledge about reading research and reading pedagogy

One thing that came through clearly in the interviews was that the topic of teaching reading/reading pedagogy, the components of reading were all still somewhat new and novel, (although perhaps a bit less so in Egypt), and a discourse around reading did not seem to have really developed. As such, terminology was varied and we sometimes got contradictory information about how reading was taught from two teachers in the same country. What was clear is that the discourse on reading has just begun, and if our respondents are at all indicative, people in the education sector do not have a great depth of understanding of all of the components of reading and the concomitant terminology. Replies were sometimes vague in terms of specifics and sometimes contradictory as some of the examples above illustrate.

Reading Instruction and Current Methods

One objective of this research is to identify how reading is taught in Arabic-speaking countries, to better understand where there are needs or gaps and where outside assistance might be of use. Several terms were used to describe the current reading instructional methods in use.¹⁴ The common terms were *tariqa hijaiyah*, holistic, whole word or spelling approach, Baghdadi approach, visual approach, and even whole language and it seemed that these terms were conflated or confused in many people's minds. As far as we could tell from the interviews, these approaches had many similarities; together they painted a picture of how reading in Arabic

¹⁴ By current, we mean those practices that are still widely used; we recognize that Egypt, Jordan, and Yemen have all been making major changes to their approach to reading instruction. However, the reforms are not yet universalized in any of these contexts, although Egypt is probably the furthest along.

is/was taught, which is in some ways in contradiction with current research findings on best practices teaching and learning in alphabetic languages.

Tariqa hijaiyah is perhaps the best known term, and it is the way reading has been taught in the Arabic speaking world for a long time. The essence of this practice, regardless of the name, was that children were being taught rapid word recognition. The goal was to look at and recognize a word and be able to say it, because it was visually recognizable. It is true that all readers do need to get to this point with a large number of words—site words—to read with automaticity. What the tariqa hijaiyah did not seem to do was to pause over each letter long enough to teach the actual letter sound and make sure the child understood that the letter—the symbol—represented a distinct sound in the language and that those sounds, strung together, created words. Reduced to its core, with the tariqa hijaiyah or holistic approach, children learned the name of the letter and the shape but did not spend time on the sound. They went right to seeing the letter in a word. Some children made the connection between the letter and the sound they heard in the word and were able to realize that the forms they were writing down had associated sounds. Some were not able to make that leap and were able to sight read but not necessarily figure out words they did not know.

Several of the country representatives we interviewed had fully rejected this method and were focused on implementing what they called the phonological approach. The Iraqi interviews (which were the briefest) seemed to indicate that there was now a focus on pronunciation in the alphabetic teaching. In Egypt, Jordan, and Yemen, it was very clear that at the higher levels of the Ministry, the new phonological approach was being adopted and introduced. Moroccan respondents were less clear about reading policy and more of the teachers and others we interviewed described the Moroccan teaching methods in reading as more traditional. Below are some specific quotes from respondents that are representative of the general responses or explanations we received about the tariqa hijaiyah or holistic methods.

Egypt: Applying the holistic approach in teaching the Arabic language was the main cause behind the difficulties in reading and writing in Arabic in Egypt, because the child was asked to read a whole word after teaching a letter with no focus on the sounds of the different letters in the word or the “tashkeel.” (E7)

Jordan: Reading used to be taught using the holistic approach where a student is exposed to a reading text first, then a sentence, a word and finally a letter; learning reading happened while student moves gradually from seeing and reading the text to finally learn the letter and its sound. (J1)

Morocco: Reading in Morocco is taught in a very classic way. There are two ways or methods that are adopted by teachers: the first is where the sentence is written on the board and the word is extracted from it, then the letter which will be taught, therefore from the general to the specific. The second method is to start by writing the letter and through it we pass on to the sentence, therefore we move from the specific to the general. (M4)

Yemen: Some schools used to teach visual reading or the Baghdadi method before the learning stage in kindergarten. (Y7) [visual reading here equates to recognizing the whole word]

Arabic is a rich and complex language and formal or standard Arabic is looked upon with great respect, as a precious legacy, a sign of erudition, and of course, the language of the Qur'an (which is the highest form of formal Arabic). As such, it is considered difficult—difficult for small children to learn and understand and difficult to write. The rules of Arabic—grammar, syntax, morphology—are also complex. As such there seems to have been an assumption that children needed to start with writing, then learn to form the letters and memorize word forms. They needed to recite and copy correctly before they could speak for self-expression or write to communicate. Under these assumptions, children were often not exposed to MSA, and methods did not include language games that would develop more facility with the language.

In this *Annex E* we have also included the in-country researcher's summary of the interviews, which was a part of their scope of work and adds to the overall analysis of the interviews.

Country Data Summaries by Local Researchers

Egypt

Summary of Egypt Interviews: Amal Nasralla

How reading is taught? Reading is taught in Egypt as part of the Arabic class. Before 2011, Arabic was only taught through the holistic approach in learning a language, developing pupils' reading and writing skills simultaneously while focusing on grammatical rules at the same time. Results indicated pupils' inabilities to read and write properly not only in the early years, but in consequent years as well. Applying the holistic approach in teaching the Arabic language was seen as the main cause behind the difficulties in reading and writing in Arabic because children were asked to read a whole word after teaching a letter, with no focus on the sounds of the different letters in the word or the "tashkeel."

Since 2011, the phonological method was adopted in teaching Arabic in early grades. The project started first in four governorates, and due to its success in making pupils able to divide any word and read it, the Ministry adopted this method nationwide. Under the new methodology, children start with phonological awareness of the different sounds and then learn how to divide the word into phonological syllables and read and practice each syllable orally and then read whole words before they are taught how to write.

At present, reading is taught in the early grades using the phonological method through a program called "developing reading skills for early graders." Under this program, a number of trainers have been selected and trained by the Girls' Improved Learning Outcomes (GILO) program (USAID-funded). Trainers were selected according to the following criteria: Has a university degree majoring in Arabic language, has teaching qualifications, has computer skills, and does not exceed 50 years of age.

Are grade teachers trained? To date, all Arabic teachers for grades 1 – 3 have been trained on teaching phonological awareness to grades 1 and 2 (grade 3 curriculum has not changed yet to reflect phonological awareness, but a new grade 3 curriculum is under development for next academic year). In-service Arabic teachers were trained through the Early Grade Reading Units that have been established throughout the hierarchy of the Ministry of Education (from the central level to school level). Teachers are trained on phonological awareness, phonics, fluency, vocabulary, and reading comprehension.

Are children taught to read and to write simultaneously? Under the old method, children were taught to read and write simultaneously so for example, when they were learning a letter, they were taught how to read it, write it, and learn couple of frequently-used words with this letter at the start, middle, and at the end. They were also asked to read and write these words. But since the adoption of the phonological approach, considerable attention has been given to identifying the sounds of the letter.

In addition, under the holistic approach, there used to be a huge focus on dictation and not reading skills. Assessment for the Arabic language focuses more on children's ability to write and less on assessing the other skills. However, under the newly-adopted method, letters are taught in the phonological way; this means that children learn first the name of the letter and then they learn how to draw the letter in the air (without writing it), then they learn the sound of the letter and its different vowels, and after that they learn how to write the letter. Moreover, children are no longer asked to write a word many times like they used to do under the old teaching approach that depended on memorization of the shape of the word. Rather, children are asked to form many words from a set of letters.

How well are pupils learning to read? Before 2011, reading difficulties were a major problem, not only for pupils in early grades, but even for students in subsequent years. Many students were having difficulties in reading and writing in Arabic, and this has affected their achievements in other subjects. The Ministry of Education had some plans to overcome this problem and launched a remedial program at schools. Schools were flexible in adopting the remedial program. Some schools dedicated the first 10 minutes in the Arabic class to reading difficulties, concentrating on reading the letters and dividing the words, other schools were grouping weak students during the reset to help them read basic words, and so on. Nowadays, after the adoption of the phonological method, reading difficulties have improved for many pupils in the first grade.

The whole language approach (the holistic approach) was paying attention to writing at the expense of reading. The attention was on the form and not the sound. Also, reading skills were neglected (silent reading, speed reading and reading with comprehension); all these reading skills were completely neglected, and this affected students' abilities to even read exam questions. The problem is that inability to read correctly (reading with 'tashkeel') affects the comprehension, but no one seemed to bother about this, and children considered themselves to be reading correctly because they were uttering letters. Some early grade teachers needed help themselves in reading with tashkeel. Now, after teachers got trained on phonological awareness and adopted it in teaching first and second graders, some improvements started to show in both students' and teachers' reading performances.

The low reading abilities of students in different grades got the Ministry of Education to support the phonological method due to the immediate effect it had on young learners in the first grade last year. Moreover, there are other initiatives for helping students with reading difficulties in advanced grades, through remediation programs during break time, as part of the activity

classes, at the end of the school day or in the weekend and with parents' approval. At present, the Ministry is studying the role the civil society organizations could play in helping students with reading difficulties.

Teachers are asked to identify students with reading difficulties from grades 1 to 6 to attend remediation programs to help them with their reading difficulties. Teachers will be trained on those programs and will be doing this extra work with no extra salary. Most teachers are convinced that it is their role to help students with their reading difficulties.

In some schools where remediation programs take place in the weekend, some parents attend with their children and learn to read.

Over the last two years, there have been some noticeable improvements in the reading abilities of early graders. At the start of applying the phonological method, there were worries that Arabic was not taught in the right way, and this method will not affect reading and writing skills. But through monitoring the effect of the newly-adopted method, children were observed reading words with tashkeel and dividing long words into phonological syllables.

Reading standards for pupils? There are standards and indicators that were laid out for Arabic language by an Arabic guru in Egypt. These standards could be found on the Ministry of Education website. Some of these standards are specific to reading letters and words and others to reading abilities and fluency. However, there is a need for educational policies to meet those standards. Educational policies that all parties should adhere to: curriculum developers, teacher trainers, supervisors, exam developers, etc. However, although there are standards for Arabic language, the fluency rate for each grade is not specified in these standards.

Moreover, each unit in the Arabic curricula for early grades has objectives in light of the content standards. For example, a unit objective could be: "by the end of the unit, students will be able to read a sentence or a paragraph accurately or quickly," but they won't define this further. Also, there is no specification of how these objectives should be achieved. But now after adopting the phonological approach in reviewing the Arabic curriculum for early grades, definitions and specifications for these objectives are provided. Furthermore, benchmarks for each grade are under development.

Some efforts have been done by an Early Grade Reading Coordinator to assess the fluency rate for early graders with groups of children in first, second, and third grades. The fluency rate for first graders was found to be 30 words/minute; for second graders, 40 words/minute; and for third graders, 50 words/minute.

As for standards for reading comprehension, it is now being monitored in all schools as part of the new practices. It is being assessed by asking children to read a passage of 60 words and answer comprehension questions on the passage. These questions include two direct questions, one

indirect question and two vocabulary questions. The reading comprehension optimum rate has been determined to be answering at least four out of the five questions in five minutes.

Diglossia impact on the process of learning to read? There are children in the early grades who read well in both Arabic and English. The problem is in the way Arabic is taught compared to the foreign languages. The attention given to teaching Arabic used to be less than the attention given for teaching foreign languages such as English and French, and this causes difficulties for students to read in Arabic because they did not learn how to do that when they were young.

Furthermore, Arabic sounds depend on using multiple parts of speech. If a child learns how to pronounce Arabic sounds correctly when s/he is young, s/he is training in parts of speech in a way that will enable him or her to speak different languages later on. Many interviewees believe that the problem happens when children don't learn to pronounce Arabic correctly. In this case, English pronunciation could affect their Arabic pronunciation. For many interviewees, the problem is mostly due to the way Arabic language is taught in the early stage and not the mere fact that another language with a different alphabet is taught with the Arabic language. They referred to many early graders who are clever in reading and writing in Arabic and English at the same time. Also, since the phonological approach is an effective approach in language learning, when this approach is used in teaching English and not in teaching Arabic, differences in reading and writing abilities in both languages occur.

They emphasized that the level of attention that is given to the foreign language at the expense of the national language could cause this effect and not the nature of the language itself. If Arabic is taught properly, it will not be influenced by the learning of a foreign language in the early grades.

One interviewee noted that the phonological method in teaching Arabic achieved improvement among children in the governmental schools where a foreign language is taught in early years as a second language more than in language schools where more attention is paid to learning foreign languages at the expense of the Arabic language. In her opinion, learning a foreign language should be postponed until children learn its national language

Effect of dialects on teaching reading? In Egypt this does not cause a problem because the Arabic language taught at schools is simplified Arabic that is close to the colloquial dialect. The phonological method in teaching Arabic achieved improvement among children in the governmental schools where a foreign language is taught in early years as a second language more than in language schools where more attention is paid to learning foreign languages at the expense of the Arabic language. In the opinion of one interviewee, learning a foreign language should be postponed until children learn the national language.

Early grade reading interventions? The GILO program piloted the phonological approach with early graders in four governorates. In light of the success of this approach, the Ministry of Education adopted this approach nationwide in 2011 and established the Early Grade Reading Unit within the hierarchy of the Ministry of Education. The unit reports to the Minister of Education. The unit is headed by the Early Grade Coordinator and includes Arabic Counselor, the head of basic education, the head of general education, and representatives from the National Center for Curriculum Development and the National Centre for Educational Assessment and Examination. The unit is responsible for training early grade Arabic teachers on the new methodology that promotes phonological awareness and phonics in the early grades. The unit is also responsible for coordination work with Arabic supervisors for teacher supervision, the National Center for Curriculum development for new Arabic curricula aligned to the newly-adopted methodology, and the National Center for Educational Assessment and Examination for reviewing assessments for early grades in light of the new methodology. The unit at the Ministry premises has branches in all governorates that work closely with the undersecretaries for the Minister of Education in the governorates. Over time, more tasks are given to this unit for supporting the teaching of reading and writing.

Moreover, the Ministry changed the Arabic book of the first grade to reflect the principles of phonological awareness, and for the first time the Arabic textbook is aligned with what teachers are trained in and will closely serve the standards set for this grade. The first grade book has been piloted during the last academic year, and teachers, supervisors, and parents were invited to give their feedback on the book and in light of their feedback, some changes were made in the book (regarding level of difficulties of some activities). The second grade Arabic curriculum has been reviewed this year and the process of collecting feedback from teachers on the book is underway. The Arabic books for first and second grades match the principles of the phonological approach as it focuses on phonological awareness and training students on how to divide words into syllables to be able to read them. In reviewing the Arabic curriculum for grades 1–3, the Ministry launched a competition among Arabic textbook authors, and a guide was produced for authors (for each book competition) that outlines basic requirements for the book. These requirements were taken from principles of the phonological method. The book for grade 3 will be ready for the next academic year.

Furthermore, the Ministry is coordinating with the National Center for Educational Assessment and Examination to review the specifications for Arabic exams for years 1–3 to reflect the principles of the phonological method of teaching and learning Arabic.

There have been some attempts before the phonological approach, but they did not survive because they were mostly individual attempts, but the support given by the Ministry to the new teaching method made it a formal one. As a result, the curriculum has been reviewed, teachers have been trained, the Early Grade Reading Unit has been established, and the training program has been accredited by the Teachers Academy. What is more important is that the new method is really a useful one in teaching reading, and children have improved in reading in Arabic as a result of this method.

Best practices in teaching reading: Many classes observed showed teachers presenting a model pronunciation and leading children through a controlled practice and then free practice where children correct each other. The teacher then gives various exercises getting all the class involved. This approach involves all children in class. They like it because it is fun for them. Teachers also feel confident that children are learning and enjoying the class at the same time. Many of these children go home and teach the sounds they learned at schools to their other sisters and brothers. The phonological approach made good use of active learning

Reading levels currently assessed? Only through EGRA for early grades is reading assessed directly in schools but reading comprehension is assessed. There have been also some standardized exams in Arabic (as part of CAPS) for specific years (4th primary, 1st prep, and 1st secondary) that USAID programs have developed.

Remediation programs? Difficulties in reading Arabic still exist among students in all stages. Some teachers and supervisors have been taking individual initiatives, but the Ministry is trying to streamline the remedial efforts and train teachers on specific remedial procedures. Some interviewees believe that phonological awareness could be a good entrance for remedial work with students in advanced years who have reading difficulties, but this needs to be done in a clever way. So, instead of telling them that they will be taught Arabic sounds and giving them the feeling that they are going back to the basics, there is a need to find a way to merge activities for phonological awareness with grammar rules, for example. So, they learn how to read with tashkeel, but at the same time they will be taught the grammatical rules behind the tashkeel.

The Ministry started to unify the remedial efforts in schools because there have been different remedial programs adopted by individual teachers and civil society organizations helping schools and rotary clubs that help children with reading and writing in Arabic. The Ministry is trying to unify these different approaches into one approach because different approaches will have different results that will be realized later in advanced grades. Now, schools are classifying children with learning difficulties in Arabic and preparing a plan to help them improve (with a log to document the implementation of this plan). The Ministry is planning to make use of Arabic teachers who were trained on the phonics method to implement the remedial program. As for the material for such a program, the remedial program that has been produced by the Education Support Program (USAID-funded program) is being considered after it has been accredited.

Key policy initiatives? Examples mentioned by interviewees:

-Coordination with the National Center for Curriculum Development for the development of new Arabic curricula for grades 1 – 3 (grades 1 and 2 Arabic curricula are done and a competition for developing grade 3 curriculum is underway). The three new curricula follow principles of teaching reading skills (phonological awareness, phonics, fluency, vocabulary, and

comprehension). Phonological awareness and phonics were highlighted in grade 1 and 2 curriculum.

- Coordination with the head of the Early Grade Reading Unit at the Ministry of Education to train all Arabic teachers for grades 1 – 3, and also embark on a plan to train all Arabic teachers from grades 4 – 9 to help weak students in their reading and writing difficulties as well as Arabic teachers in the technical schools.

- Coordination with the National Center for Educational Assessment and Examination to prepare exams specifications that reflect the new approach of teaching reading to early graders.

- Using teachers who were trained on the phonological method to train on the remedial programs for students with reading and writing difficulties in advanced years.

- The teacher training program on phonological awareness has been accredited by the Teachers' Academy, and it becomes part of the requirements for Arabic teachers who are teaching early grades. Also some program trainers got accredited as certified trainers.

Intervention to improve reading? After emphasizing phonological awareness in grades 1 and 2, some interviewees are looking forward to programs that foster phonics, morphology, reading comprehension, fluency, and dictation in addition to the other language skills and to train teachers on this new program.

Other interviewees suggested the need for a program to improve writing skills and spelling. Spelling is a difficult area in Arabic because people write the letters they pronounce in the word, and this makes major spelling mistakes in Arabic.

Which order letter should be taught? The majority of interviewees don't think there should be a specific order because each letter will be taught with its different sounds, and this does not get affected by a specific order.

How is student learning affected by using pattern recognition (tariqa hijayia) vs. phonics? "Tariqa hijaiyah" was not effective, unlike the phonological method that is being adopted now in teaching Arabic, which makes use of the different senses so that it makes children more responsive. In a nutshell, the phonological method helps children with reading difficulties to a great extent. Pattern recognition alone without phonological awareness is a big disadvantage. It doesn't help children and get them to memorize. Arabic language is a spoken language, so the sound should come first and then the form.

The effects of tashkeel on automaticity and speed? Tashkeel is the most effective way in the Arabic language to increase speed, accuracy, and comprehension. When we ignored tashkeel or introduce it later in the advanced year, there were difficulties in reading speed, accuracy, and comprehension. Arabic language is known by the variety of synonyms and minimal pairs. tashkeel is the most effective way to establish understanding of the different synonyms.

Moreover, tashkeel is the basis for reading in MSA, and that is why if we get children to read with tashkeel from the beginning, they will have no problem in reading in MSA. It is also suggested that once children learned how to pronounce the word correctly when they read it, they will keep using tashkeel in their speech. So learning to read in 'tashkeel' is the basis not only for reading in MSA but for speaking in it as well.

Tashkeel also helps pupils in dividing and synthesizing words easily and this affects the reading speed. The phonological method depends on tashkeel, and this has affected the way children read and their automaticity because they practice the sound of the vowel set so many times.

How should the transition to unvoweled words be facilitated? In the Arabic language, it is difficult to read words without tashkeel (unvoweled). When reading, all words need to be voweled in order to pronounce letters as sounds and in turn read the words correctly.

Which grammatical and syntactical features are similar or different between standard Arabic and the dialects of your country? There are many dialects in Egypt, and they differ from urban to rural areas, but the Arabic language that is being taught in schools all over the country is the simplified classical Arabic. This makes it easy to adopt the phonological method in teaching Arabic and teaching children basic grammar rules.

Which harakat could be safely removed in various grades? The harakat should not be removed at all in the early grades until students become fluent readers; they could be removed gradually but the harakat on the last letter should not be removed during the primary stage.

What vocabulary or syntactical difficulties do students have in later years? Difficulties with new vocabulary could be solved through the guessing exercises that have been applied under the new method of teaching Arabic in the early grades, such as guessing the meaning from the context, a title, a picture, etc.), but syntactical difficulties will remain a problem that needs to be addressed.

Iraq

Summary of Iraq Interviews: Ali Taha

Tell me what you remember about learning to read (in Arabic). What was the most important factor in your experience?

Most of the interviewed (6) report “I have learned in Arabic language how to link the voice (pronunciation) and the image of the character (symbol)” and “the single repeating is the most educate actor to read and write both” which mean the consistent of both voice and image of the character. (Author’s note: Respondents need to both recognize the letter and know its sound and they have to memorize the symbol/sound correspondence; this is done through repetition.)

Other interviewed (1) report “I have learned in Arabic language how to use the pronunciation method to spell the Arabic symbol.” (Author’s note: an indication that he learned through a more phonological approach.)

Also one interviewee replied “I have learned in Arabic language how to link between the image and the color of the character in the governmental Arabic book.”

Is reading taught as part of Arabic or is there a separate topic called “reading” in your country or in your school? Be as specific as you can about where reading is explicitly included in the curriculum.

All (8) of the interviewed report that reading is considered a main part of the Arabic curriculum. And they mentioned that the Arabic curriculum contains grammar, expression, reading, and dictation or spelling or pronunciation.

How is reading taught in your country or school now? What methods do teachers use? How are they trained? Are there instructional standards for teachers, specifically related to reading? Can you talk a bit about what is contained in the standards (i.e. what practices are teachers required to implement in their instruction?)?

A high majority (6) of the interviewees mentioned that the best method to teach is to mix between the two methods of voice combination (synthesis) therapies and compositional. (Author’s note: They are saying that teachers should use a mix of phonics/phonological awareness and writing.) They added that the teachers should follow teachers’ manuals to reach the positive result in the teaching process. And this process starts or begins by simple practicing and then the link between sound character and symbol image that represents single mode. (Author’s note: They are saying that the association between the symbol and sound are solidified in the mind of the learner.)

Small majority (2) of interviewees demonstrate that teaching reading is beginning of learning the characters then how to pronounce two characters together. Each character is pronounced with vowels beginning and then graduated characters with each other to be the word. (Author’s

note: He is referring to syllables—consonants with short vowels in this case.) My view and opinion is that the best way is the spelling way in teaching reading of the word and this is the most successful and best approach in educate Arabic readers.

Are grade teachers trained explicitly in teaching the component skills of reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension)? Where do they receive this training (pre-service? in-service)?

All (8) interviewed reported that not all teachers are qualified to teach, although they graduate from their institutes and colleges but their teaching technique are poor. Add to that the fact that the way or approach they deliver material to pupils is limited.

All teachers during their period of education in their institutes and colleges receive such training in the last two years of their study and also in the period of the application stage in government schools (practicum) but it remains experience and practice and love of the profession are the main factor in the teacher's ability to tend to pupils.

Are children taught to read and to write simultaneously or does one precede the other (i.e. do children write letters as they learn to say them and identify their sounds? are children taught to write frequently-used words?)?

Eight of the interviewed replied “Yes” they are taught simultaneously. And they mentioned that the book “I Read” (Karaaty, in Arabic) for the first grade primary level is focused on combining sound, symbol, and moving slowly to the word and sentence.

How well are pupils in your country /school earning to read? Why do you say this? Can you cite recent data and/or some examples? Within educational circles in your country have you heard concern expressed about pupils’ reading levels? If yes, can you tell us what the concerns are?

All interviewed replied that 70% of the pupils do not do well in term of expression, pronunciation, dictation. And they said the reason behind this percentage is the teachers, not the books, especially after the development of the curriculum of the Arabic books. Last survey mentioned that 50% of pupils in primary school especially in the third grade can’t read or write well; even some can’t write down his name well. (Author’s note: the interviewee is likely referring to the EGRA results for the end of second grade?) Our nationwide concerns are on the increase in the percentage of the illiteracy between our people and children.

Does your country/school have reading standards for pupils? If yes, what is the desired fluency rate for each primary grade? Do pupils meet these standards or do you see challenges? Do you find that pupils meet comprehension standards, (if these exist)? Why do you say this (i.e., is it based on data or evidence or your own observations)?

Eight of the interviewed report that “Yes” and six of them mentioned that schools have reading standards for pupils. Like in the first grade, students who pass should know well how to come out

and pronounce the letters and spell some words in manner way. In the second grade if they should pass they should show they can read a fluent with slow speech and lack of expression. All also mentioned that the common reading standards in schools for pupils is if teachers test the pupils to read somethings in his books and he or she can read it well within 3 or 4 minute that refer to good reading standards for his pupils. Otherwise if he or she cannot then we have to seek the reason.

How does diglossia impact the process of learning to read for children in your country (and/or your school)? How is diglossia addressed to facilitate the acquisition of reading skills (i.e., is morphology emphasized to point out the links between dialect and MSA?)?

Most of them (6) report that there is no diglossia in the process of learning in our country because most of our children are Arab. While two report that through the process of the learning if there is any kind of the diglossia, by the six grade of education it will disappear during the period of primary school. (Author's note: The interviewer did not understand the term diglossia, it appears; he might be saying that the use of dialect in school will diminish by the end of the primary cycle but this is unclear.)

How does the fact that many pupils study a second language (usually with a different alphabet) in school from an early grade impact their learning to read and write in Arabic? Is this a help or a hindrance? Can you give examples or cite recent data/studies to support this?

(4) 50% of interviewed said that study a second language will effect badly on their learning to read and write Arabic, While the rest report this is not so, and they mentioned their own proof of their view resting in how the MOE inserted English in the early grades and all the pupil do not mix between them (Arabic and English).

What are some issues you have noticed regarding the transition from reading in Arabic to reading in a second language, including issues with language script?

Four from the interviewed report they will face difficulty of pronunciation and dictation and writing; two report they will mix between the languages. Others did not respond.

Research suggests that helping children make morphological connections (identifying word roots), using short vowel markers for longer in the early grades and exposing children to MSA in pre-school all contribute to better reading in Arabic. Do you think the teaching of reading in Arabic in your country/school takes this into account? Can you provide examples of projects or initiatives that demonstrate that?

All report "Yes," their school system takes these things into account. One of them mentioned that they try to have pupils remember short verses, texts, and chants in the way that let the ears of the reader hear it and help the learner to be able to make the correct pronunciation.

Others did not mention anything.

As an educator/expert in contact with other educators in the Arab world, are there any sub-regional similarities or differences of note in the teaching and learning of reading in Arabic? (Maghreb vs. Mashreq, etc.)

50 % report there are sub-regional similarities, and the rest demonstrated that there is differences of note in the teaching and learning of reading across Arabic speaking countries.

What early grade reading interventions are currently being implemented in your country/school, either by the ministry, donors or others? What results are expected from these interventions? What have you seen so far? What data exist to document outcomes or results? What seem to be promising approaches for instruction from these initiatives? Are there futures initiatives planned that will focus on reading?

No clear answer from all: One of interviewed mentioned that he cannot report any things. Two report that there are no interventions. Four replied that changing the curriculum will start soon. One from the MOE-HQ reports that there are some INGOs starting currently to help MOE in curriculum, methods, and approach of teaching, and also reports that the result of these great interventions will push the MOE and pupils forward. In terms of future intervention we believe that establishing the Iraqi national center of curriculum and following and using the standard scientific methods will help the level of the education in our country.

Can you share any examples you know of that could be considered “best practice” in teaching reading in Arabic? Have there been any studies to document the success of these examples? Do you know of any data that exist to demonstrate improved reading?

Only one really responded to this question and mentioned that the book for the first grade of the primary school is something he considers the perfect example.

How are reading levels currently assessed in your country/school?

All report through the daily reading in the classroom and also through reading then dictation, and the optional test using the dictation of whiteboard test.

Are there remediation programs for pupils who have been assessed as reading below grade level? Can you describe them or tell us what you know about such programs, in terms of content and instructional approach?

All report yes. Four report that there is a special level for them; other two mentioned that they focus on them in a special classroom. The rest report that there is an extension of the period of reading to the end of the level six.

Are there any key policy initiatives underway that affect or will affect how reading is taught in your country/school (i.e., changes in curriculum, school timetables, teacher qualifications etc.?)

Two report “No.”

Other six report “Yes” and mentioned that developing the curriculum is the first step.

If you were able to organize and fund an intervention to improve reading in your country/school, what are some things you would do? Why?

Five of interviewed report that will start to train the teachers by using the friendly approach in educating the children.

Another three report that using new samples and examples of reading materials close to children’s life is the first process they would like to do, especially since all the text and subject that the book using it are too old and far from the children life.

Are there any other important things about the teaching and learning of reading that I did not ask you but should have?

All the seven report no; only one interviewee mentioned that you have to take care about below issue as well: the type of line and reading a book cover, paper, and book colors and themes of the book reading as well as the subject of the books.

Specialist Questions:

- In what order should letters be taught in voweled Arabic?

In the first grade (Author’s note: Question clearly misunderstood)

- How is student learning affected by using pattern recognition vs. phonics (tariqa hijayia)? Which method is used in your country? Why?

The way of the alphabet, sectional. (Author’s note: Children are taught the alphabet in sections or segments; it appears that no one answered the first question.)

- What are the effects of tashkeel (vowel set or diacritics) on automaticity?

Not properly pronunciation (Author’s note: They likely mean that the removal of the tashkeel will lead to improper pronunciation, however this cannot be confirmed from this.)

- How do beginning vs. expert readers see voweled and unvoweled words as they read?

The beginning reader does not properly pronounce, while the expert does.

- How does tashkeel affect speed?

No response.

- How should the transition to unvoiced words be facilitated?

No response

- From your experience, which grammatical and syntactical features are similar or different between standard Arabic and the dialects of your country (e.g., conjugations, pronouns, popular use of verbs and nouns) and how are these addressed or handled in the curriculum?

There are many mistakes Arabic dialects, while there is no mistake in standard Arabic.

- How do diglossia effects interact with the removal of harakat (tashkeel)?

Meaning is incorrect when you remove harakat. (Author's note: Students might misconstrue meaning and get the words wrong, is what the interviewee may be saying.)

- Which harakat could be safely removed in various grades (e.g., the first vowel could be left with the intermediate ones removed)?

No one can remove it; all considered important.

- What vocabulary or syntactical difficulties do students have in later years that may prevent the comprehension of more complex text?

More difficulties is writing the hamza on the alfa and waw and the alyaa, by the correct form where the meaning is incorrect.

Jordan

Jordan Interview Summary: Muna Amr

The teacher interview:

Mr. X is a teacher of second grade in a boy's primary school in Al Mwaqer district (Eastern Amman). He has five years of experience teaching second grade and has a bachelor's degree in early grade teaching (qualifies teachers to teach all school subjects, except English, to grades 1, 2, and 3). As I interview X, I noticed that his expressive language is limited. He most of the time was not finishing his sentences. Also, his knowledge of the process, skills, assessment, and teaching methods of the reading skill is vague and inaccurate. That appears in the vague way he used to describe the skill of reading and how he is teaching and assessing it.

Reading instruction:

X suggested that, here in Jordan, reading is taught as 'part of the Arabic language curriculum', where children learn 'reading, writing, listening, etc., and all together'.

He added that reading and writing are particularly taught simultaneously to facilitate the child's recognition of the sound and its written form.

When X was asked about how reading is taught he said, "Through the use of modeling reading where teacher read the lesson first [as a model] and then have the skilled readers to read the lesson front of the class and then ask the less skilled readers and continue until she gets to the weak readers who have heard the lessons more than one time and so learned the correct way of saying the words."

*** Researcher comment:** It appears that this teacher does not know as much about the methods of teaching and learning reading as desired. The modeling method, from my experience, is not used throughout the country or considered as an approach in teaching reading. It is usually used when children are first introduced to a text, and where the teacher tries to act as a model showing the correct way of reading the text and how new words should be pronounced.

X thinks that our students "have weakness memorizing letters and their sounds." By the time they "enter grade two, where they are expected to read words, they have still not mastered the letters reading." X therefore thinks that "it's better that we continue teaching letters in the second grade to help students master them."

Also X thinks that the reading level of almost 50% of our children is low and not satisfactory. This observation is based on his firsthand experience with the children he teaches and observes at his school where many children reach grades seven and eight and still cannot read or write. X asserted also that he does not know of any studies or data that support this view and it's completely based on his own experience.

In relation to the similarities and differences across the Arab countries in the methods used in teaching reading, X thinks that they all teach the same reading skills but maybe use different methods. For example some countries maybe utilize technology in teaching reading more than other countries.

As far as the best practices in teaching reading, X stated that it is the use of “group teaching, where students are put in groups and the learning process becomes more interactive and participatory and not just a teacher teaching the class. Sometimes students learn better from their peers. And also this allows the strong learners (high achieved learners) to help those who have learning problems.” X does not know if there is any research evidence that supports the effectiveness of this approach as he stressed that: “this is my own method.”

X thinks that the three the Arabic vowels (a o e) should be taught first because they are easy to pronounce. Following that we should teach the letters that are similar in their shapes such as (ح خ) (h kh j), which help students distinguish them.

He also thinks that tashkeel facilitates the automaticity in reading especially if the student masters how to use and read them. He also thinks that voweled text facilitates reading for both beginner and expert readers; however expert readers can still effectively read unvoweled texts using cues from the texts such as the structure of the sentence to predict the correct way to read the words. Also X thinks that tashkeel decreases the speed of the readers who would be busy trying to figure out the tashkeel they are encountering as they read.

X said that similarities between the MSA and Jordanian dialects include the prepositions and pronouns. Differences are in the non-use of grammars in the dialects. X added that the curriculum does not pay attention to any similarities or differences between both languages; it focuses only on the MSA.

X said that the harakat that can be safely removed is al shaddah and sokoun. Also its better we leave the harakat on the last letter of the word.

X also said that if the student has limited vocabulary that would adversely affect his comprehension in the future.

Teacher training for early grade reading:

Regarding whether X received any specialized training in how to teach reading and its different skills, he said: “No, we did not receive specialized training on how to teach reading and its different skill at the universitynot also in the field [when he became a teacher], I only had a training workshop for new teachers about teaching methods in general and classroom management.”

***Researcher Comment:** When asked about ‘reading skills’ I intentionally asked him if he knows the reading skills that we taught to our students. X said, “The reading skills maybe are to memorize all the alphabet letters and syllables and then to know how to join syllables together to form sentences, and maybe then we taught the child how to form words from three, four, and five letters, and after that we ask him to form, by himself, a full a sentence such as X went to the market. It could be noticed, from the response, that X’s knowledge about what constitutes reading skills is not adequate, clear, or comprehensive.

Reading standards and assessment:

X, when asked whether there are reading standards at the national or school level, said: “Yes there are.” When I asked him what is the desired fluency level he said: “it’s the student ability to read sentences accurately.” When I told X this reflects student’s reading accuracy not fluency he then said: “We do not have something to assess fluency level...it’s all only about students’

ability to read.” I asked X where I can find these standards, if they exist; he was not sure and said maybe in the teacher instruction guide. He also added that they do not focus on the reading standards when teaching their students. For example, when he teaches comprehension, he reads the reading text to his student and then asks them questions about it. And through this process he will know if the students comprehend the text or not. The comprehension standard here, as X thinks is ‘answering the text’s questions’ correctly; if the student answered two questions out of five correctly then his comprehension level is low, if he answered four then he is good, and excellent if he answered correctly all five questions. X also added that this is his own personal standard and different teachers may have different standards. X also stressed that there are maybe national standards but he and other teachers do not use them.

***Researcher comment:** X demonstrated some weakness understanding what we mean by reading standards and what they are used for. He therefore could not offer a full meaningful response to the question. This suggests not only the unavailability of such standards but also lack of knowledge of their importance and use in the process of teaching and learning reading.

As for how reading is assessed here in Jordan, X said by asking the students to read a text accurately. There are no specific criteria against which the child’s reading ability is assessed; X usually chooses his own criteria, which are vague as he said: “I choose the criteria for example the student should not make too many mistakes.” When I asked him to explain what he means by ‘not to make many mistakes’, he said: “Maybe if the student makes five mistakes then he is not good, but if he makes one or two mistakes then he is ok.”

Learning to read and diglossia and second language learning:

X thinks that diglossia does not affect the way children learn to read because only MSA is used in the classroom. He, however, later said that children sometimes, while speaking MSA, use their slang dialect when pronouncing some words. X also stressed that he does not use the slang dialect when teaching reading as he thinks different students have different dialects, which would make it difficult to communicate in the classroom. Using one language, which is in the case the MSA, will make it easier for him to understand all of his students and better communicate with them.

Current and future reading interventions and initiatives:

X stated that he does know of any existing or future intervention programs or initiatives that aim at improving teaching and learning reading. He also added that if there are any programs, they probably “did not reach us because our school is located far away from the capital city.”

As for the intervention programs for children who are assessed as reading below grade level, X said there are no such programs and usually it’s up to the teacher to make some intervention with those students.

X, when asked if he had the chance to improve the teaching of reading what he would do, said: “I would make more focus on the first grade ensuring that all students master learning the alphabet.” X also added he would improve the class environment as the number of the student per classroom is high and reaches some times 40 students in the first three grades. Also, providing the classroom with more teaching materials, which are not available now, would be a priority. X would also provide better training to teachers at the pre-service and in-service levels.

Interview with the head of Arabic language department at the curriculum and textbooks administration

S is the head of the Arabic language department at the curriculum and textbooks administration. He worked as a teacher of Arabic language for 10 years before joining the curriculum administration at the MOE as a member first and then as the head of the Arabic language department for the past five years. He participated in developing previous and current Arabic language textbooks for the first three grades. Dr. S participated in the early grade reading assessment survey (EGRA) in 2012.

***Researcher comment:** It is worth mentioning, according to the MOE website, that the Arabic language department is responsible for authoring and developing the Arabic language curriculum and relevant learning materials.

Reading instruction:

S asserted that reading is taught as part of the Arabic language subject as “it is not possible to separate learning reading from other language skills.” Skills such as reading, writing, listening, etc., are all interlinked. He also added that reading and writing are taught simultaneously; the child sees the letter first, learns its sound, and then learns to write it, but all in the same lesson.

As for the approach used to teach reading in Jordan, S said that the holistic approach was used until the last year. As from this academic year, the MOE developed a new curriculum for first grade where the phonetics approach is utilized. Teaching reading, with the use of the new approach, includes presenting pictures to children that includes words encompassing a specific letter that children are going to learn in that particular lesson. For example, if the lesson is about teaching the letter ‘a’ then a picture of a rabbit ‘arnab’ is presented to children, and the teacher focuses on the sound ‘a’ when reading the word ‘arnab’. After that the teacher presents some words with the letter ‘a’ to students, where they are requested to put a circle around the letter ‘a’ in these words or colour it. This letter will be then extracted from the words and presented it separately and children have to write it down. So children in the same lesson learn and practice both reading and writing letter and words.

S justified that transition from the use of the holistic to the phonetics approach in teaching reading to the fact that, unlike other languages such as English, Arabic language has a regular orthography where written words match their pronounced forms in most of the cases. Based on this fact, it is easier for children to learn via the phonetics approach which corresponds to the nature of the Arabic orthography where children can decode the written letters and syllabus directly in order to read the word. S added that from his own observation, the weakness in reading has started to spread among our students since we started teaching reading using the holistic approach. Also we were encouraged to go back to the phonetics approach as we were witnessing some Arab countries starting to use it and reporting that it has proven so far to be successful in improving their children’s ability to read. Another reason to have changed the curriculum is the EGRA results, which showed that our children struggle to read and many of them do not yet master the skill of reading letters.

Another thing that we tried to do in the new curriculum for the first three grades is to simplify the level of the reading texts in terms of the number of words in each lesson, the language expressions, and structure and number and nature of the reading comprehension questions; most

of them are literal and not inferential. We did that to focus on learning reading, which is the main object of this stage.

In relation to the practices that could be considered as ‘good practices’ in teaching reading, S said, “Maybe the focus on group work or group teaching. For example some of the intervention activities that are used now require that the answer is given at two levels; group and individual. Working through a group sometimes might encourage those children who are shy and fear making mistakes, when the answer is presented from the whole group this might help preventing the children from being embarrassed and thus encourage him to participate in answering the question.” Nevertheless, S does not know of any study that would support the effectiveness of this method, but he pointed out that he was told that some countries, where EGRA was implemented in the last few years, have utilized this strategy and reported that it has been proven to be effective.

In relation to whether there are similarities or differences across the Arab world in the way that reading is taught, S thinks that the Arab countries are similar in terms of using methods that, though they might vary, are not effective.

Specific issues in teaching and learning reading:

- S asserted that the sequence in which the Arabic alphabet should be taught is a debated issue. In his view, it is better we should start with letters that are considered easy in terms of their pronunciation, such as the vowels (a/ o/ e) and then the lips letters such as (b) and (m). S asserted that “this principle in teaching the alphabet is used in the curriculum, and so far we have been receiving positive feedback about it.”

***Researcher comment:** This principle has been used also in the previous Arabic curriculum. The rationale that underlines it is that the vowel letters are easy to pronounce and also having them learned first helps the child to later be able to read syllables and words. As for the lips letters (labial), they are the letters that are formed by the lips so they are easy to produce and visible allowing the child to see them when others such as teachers say them. These letters are considered easy compared to other Arabic letters, such as the uvular and pharyngeal sounds, the former articulated with the back of the tongue and the latter with root of the tongue against the pharynx.

S asserted that the use of tashkeel helps students to read accurately and fluently, but to enable that we should prepare and train students to know how to read them. They should not, of course, be taught it separately but with Arabic various letters. S also asserted that he does not think that the existence of the tashkeel on the text affects the students’ automaticity or speed in reading. The harakat is part of the letter and word, and when the child is constantly asked to read with tashkeel he eventually becomes automatic.

S also pointed out that novice readers as compared to advanced readers might need a longer time when reading words and texts with the existence of harakat. Advanced readers can read without the existence of the tashkeel as they can predict the harakat from the context, unlike beginners who, because they have not acquired yet the appropriate level of fluency and comprehension, cannot rely on the context to be able to read unvoweled texts.

The transition from vowelized to unvowelized words, according to S, can be facilitated through the gradual removal of the tashkeel. Also, children should be taught to deal with the text as one whole unit, so they comprehend the text as they read it, which allows them to use the context to read the text without needing it to be fully vowelized.

According to S, also, the removal of the harakat can be only possible if the harakat can be predicated. For example, passive voice verbs should be vowelized otherwise they can be mistaken for their past or present forms. For instance, we need to put harakat on the verb (koteba) so as not to read it as (Kataba). However, we might choose not to put harakat on this verb if it comes in a sentence where the context reveals its passive tense. Also readers know that in verbs in the past tense such as (darasa) the second letter is vowelized with fat-ha, and therefore it is safe to remove it. S added, as a very general rule, the harakat on the first and last letters are important and not safe to be removed.

In S's view, slang does not greatly interact with absence of the tashkeel; however, in some cases, words, if not vowelized, can be read in slang instead of MSA. S also pointed out that the difference between the MSA and slang is mainly in the use of the vocabulary, but at the syntax level the differences are minimal.

As for the problems related to the vocabulary that might affect the reader's ability to later comprehend complex texts, SSS thinks it's having limited vocabulary, as possessing enough vocabulary is essential to understand the texts, as part of their complexity is due to the use of new or unpopular words.

Teachers training for early grade reading:

In relation to whether teachers received training on how to use the new approach in teaching reading in particular and methods of teaching reading in general, SSS said that "there is training but the problem is that it is theoretical and not practical." For example they train teachers on the teaching strategies and what the strategy means, but teachers in this training are not shown how these methods are implemented in actual classroom situations and in teaching the different reading skills. To overcome this problem, the MOE developed an instructional guide for teachers on how to use this method to teach reading. The instructions in this guide are detailed and specific about how each reading skill should be taught. This guide, however, will be used temporarily until the full training course and teacher guide, which are being now developed, are ready. This training course will provide practical and detailed training for teachers teaching first grade on how to teach the different skills in the new Arabic language curriculum, including the skill of reading.

S stressed that there is lack of communication between the MOE and universities that provide pre-service teacher training programs regarding the skills that teachers need to acquire. In general these programs do not provide teachers with sufficient knowledge and skills that are necessary to the requirements of the teaching profession. S stressed that "I doubt that the teacher trainees in these programs are exposed to appropriate practical training, where they are exposed to actual classroom settings and it has been explained exactly how the different reading skills are taught."

In general, S stressed that teacher training is a very urgent issue now, and it should focus on the practical steps of how to implement the different teaching strategies, as their focus now is mostly theoretical.

As for whether the curriculum takes into account considerations that facilitate learning reading such as learning the word's root, using the tashkeel for longer time, and exposing children to the MSA at a young age, S said that the curriculum takes into account using the tashkeel until the tenth grade, and after using the tashkeel is subject to different factors, such as the use of unfamiliar or difficult words. Also the curriculum introduces the MSA as early as kindergarten level so to provide children an early exposure to the MSA.

Reading standards and assessment:

In relation to students' reading level here in Jordan, S said that their level is low. S referred to the early grade reading survey (EGRA), which showed that "students' performance on the reading test was very low; their zero scores on the test did not exceed 30%."

As for the availability of reading standards for students, S said we do not have detailed standards for the different reading skills, i.e., fluency and reading comprehension. We have learning outcomes, which state what children in each grade need, in general, to learn in Arabic language. S, nevertheless suggested, from his observation, that teachers do not even view the learning outcomes sheet disseminated by the MOE. Therefore even these learning outcomes are not effectively used in order to help measuring students' progress in achieving the different reading outcomes.

S also added that, in general, students' level of achieving the reading outcomes is unsatisfactory. He said that this observation is based on his own experience and also the results obtained by the reading assessment survey (EGRA).

In relation to how reading is assessed in Jordan, S said it is through reading tests prepared by teachers. I asked S if there are any instructions for teachers on how to prepare such tests, he said that this issue is a concern of the exams and tests administration.

S does not know of any national assessment for reading that assesses our students' reading ability.

Learning to read and diglossia and second language learning:

S thinks that diglossia has a negative effect on students' ability to learn to read. He explained this saying that Arabic slang is more popular than the MSA and it usually dominates the learning context where the child is supposed to learn reading. Students are exposed to the MSA only during the Arabic lesson; in the rest of lesson, teachers speak slang to their students.

Furthermore, S asserted that children learn the slang first; therefore when they learn reading for the first time they may have a problem because of their limited vocabularies in MSA, which also might affect their expressive language in MSA. Speaking dialect might also affect students' pronunciation of the different sounds when learning reading (the same sound might have different pronunciations across the different Jordanian dialects).

S thinks that it is possible to use the slang to facilitate the learning of reading because the difference between the slang and MSA is not large. S explained that this can be possible if we use in the reading curriculum words that are originally originated from the MSA. Teachers also should explain to their students how many words they use when they speak slang are derived from the MSA, which helps students to see the connections between the languages. Doing this also will gradually facilitate the transition between both languages.

As for the effect of learning other language beside Arabic on learning reading, S thinks such thinking hinders the acquisition of reading in the early grades. Similar to diglossia (slang vs. MSA), learning two languages at the same time is not easy and always the more popular one will dominate the student's language. In the case of Jordan, it is the second language and many students are more exposed to it than they are to MSA, and that could contribute to their difficulty learning reading in Arabic. Furthermore, S stressed that many students find learning to read in English easier. According to him, this might be owed to the methods used in teaching English, which seem to be more effective. Also the activities used in the English curriculum are more interesting and functional (more related to students' life). S, therefore, thinks we should go back to teach English at the fifth grade like before.

S does not know of any research or data that support his argument regarding both diglossia or second language.

Current and future reading intervention programs and initiatives:

S does not know of any current or future reading intervention programs, but he said that the Queen Rania Centre for teacher training might have such programs.

Nevertheless, he said that the MOE has prepared remedial activities, which teachers give every day for 15 minutes as part of the Arabic lesson. These are extra activities and aim to help remediating any weakness students may have in the different reading skills. These activities are, however, still in trial and only used in 40 schools. These activities are designed in harmony with the curriculum, so they also utilize the phonetic approach in teaching reading. S, nevertheless, thinks that the length of these activities (15 minutes only) might not be enough, and also these activities alone are insufficient in remediating students' weakness in reading; they should come along with other interventional programs.

As for the availability of remedial programs for children who have been assessed as reading below grade level, S said he does not know much about these kinds of programs, but if they exist, they are prepared and supervised by the special education department.

Interview with professor of early childhood education at the Curriculum and Teaching Methods Department, University of Jordan

She has an extensive experience in teacher training and curriculum development.

Reading Instruction:

Dr. L asserted that the approach used here in Jordan to teach reading is the ‘direct approach’ where the teacher shows his students the letter, says its sound, and asks them all to repeat the sound after him. L thinks that this approach is not useful for children because they need to be more involved in their process of learning, which helps facilitate this process. In other words, we should not spoon-feed children the knowledge they learn, but rather have them be part of the process of getting and learning this knowledge.

L asserted that we need to promote literacy learning in order to prepare children to learn to read. For example, before teaching the letter ‘B’ to the child we should read him a story where he can see the printed material first and hear the sound of the letters and words.

L doubts that there are instructions for teachers on how to teach reading and the different strategies and practices they may use in order to facilitate children learning.

Sharing with us what she thinks as ‘best practices’ in teaching reading, L said that she would talk about the worse practice in teaching reading, which is having children memorize words and sentences and texts rather than reading them. Unfortunately, this is what teachers do now in schools; they have children reciting their reading lessons instead of getting them to apply their knowledge of reading to read the words and sentences.

L thinks that there is similarity across the Arab countries in that they teach reading using traditional methods; they may differ though in the details of how they implement such methods.

Specific issues in teaching and learning reading:

L thinks that teaching letters should not be taught according to their alphabet sequence. We should consider separately the letters that are similar in shape so their similarity does not confuse children.

She also thinks that tashkeel, if taught appropriately, should not affect the automaticity.

Beginners find tashkeel difficult but also find unvoweled words more difficult.

She also thinks that Arabic script is difficult, so we need to teach children how to deal with this difficulty.

Teachers training for early grade reading:

L said that there is no specialized training for teachers on how to teach the different skills of reading. This problem is in both pre-service and in-service training programs. L explained that the problem with the pre-service programs (mostly in universities) is that their content is chosen by the person (professor) who is teaching the course; some professors teach outdated knowledge to their students and do not refer them to the latest methods and trends of teaching reading.

Reading standards and assessment:

L asserted that she thinks that a high percentage of children are not at a literacy level where they should be. L made this conclusion based on her personal observations in addition to the feedback she receives from colleagues working in schools.

L could not cite any study or data that provide information about students' reading level in Jordan that could confirm her above view. She said that such studies or data, if existed, usually are not made available or accessible to the public. She also asserted that such research is important and should form the base for decisions made regarding what is best for our children and what aspects we should change/develop in our programs and curriculum so they become more effective.

As for the availability of reading standards, L said that we do not have national literacy standards in Jordan. Such standards are important for teachers so they know what is expected from children in each reading level and accordingly identify those children behind the expected reading level.

As for how reading is assessed in Jordan, L said, it is assessed only by asking the child to read the text and then counting his reading mistakes.

Learning to read and diglossia and second language learning:

L asserted that diglossia hinders the acquisition of reading because we talk and teach children using the slang and when the child opens his Arabic language book to read he sees another language, which he does not really understand. Diglossia would not affect learning reading if we introduce the MSA to children in an appropriate way. For example the child should be exposed to the MSA enough time before he starts learning to read in it. MSA is not easy to learn and is considered a new language for children.

L asserted that learning a second language does not hinder learning reading in child's first language. She said, she read many articles about this issue and they all showed that learning a second language assists learning reading in the child first language and vice versa. There are though some old studies here in Jordan stated that children should first learn to read in Arabic and learning a second language should start at a later age, like in fifth grade.

She also added that children usually find the English language visually easier; words in English are not written in a cursive fashion so letters are easier to be usually identified. On other hand Arabic text is cursive and letters change their forms according to their positions in the word and, these aspects of the text increase its difficulty.

Current and future reading intervention programs and initiatives:

L asserted that she did not hear of any intervention programs or initiatives that aim at improving learning reading in Jordan. She said she wished there would such programs.

She also does not think that there are remedial programs for children who read below average.

If she had the chance to develop an intervention program, L would develop every single aspect of the process of teaching and learning reading. She would, for example, develop teacher training

programs so they focus on methods of promoting literacy and how to understand children's capabilities and needs.

Interview review: Head of the Curriculum Administration

Dr. Y worked as a math teacher, a math supervisor, and as a head of different departments at the MOE before he became the head of the curriculum department last year. Dr. Y holds a BA and MA in mathematics and a PhD in math curriculum and teaching methods.

*** Researcher comment:** Please note that in the interview, I focused on general issues and avoided any specific or detailed questions about reading. Dr. Y is more of a math expert and in his administration deals with issues related to teaching and learning reading at the general level.

Reading instruction:

Y pointed out that MOE has launched this year a new Arabic language curriculum for first grade. This new curriculum utilizes the phonetic approach in teaching reading, which essentially focuses on directly teaching letters and their corresponding sounds. Y stressed that he is optimistic about the use of this approach, mentioning that recent studies showed that this approach is effective in teaching reading, unlike the holistic approach that was used in the former reading curriculum.

When I asked Y to be specific about which studies argued for the effectiveness of the phonetic approach vs. the holistic, he said he does not know any; he only heard that current research supports the use of this approach.

Y stressed that reading is part of the Arabic language curriculum, and so it is taught as a language skill along with other skills such as listening, speaking, and writing. These skills are taught together in the first grade and later grades and they cannot be separated.

Y thinks that there are some similarities between the Arab countries in how reading is taught, he however could not specify how and in what aspects. He just elaborated on this issue as to say that the approaches of teaching reading in general might be similar.

Teachers training for early grade reading:

Y pointed out that teachers receive training but it is general and insufficient. He said that we provide a general course for new teachers who just joined our teaching force. This course covers general issues such as classroom administration and discipline. We do not have specific courses, however, on how to teach reading.

Y expressed his deep concern regarding the delay in providing training to teachers on how to teach the new curriculum, where a new approach in teaching reading is used. He said that training material has been prepared for this sake, but due to miscommunication between the different departments in MOE, the delivery of this course has been delayed. So teachers have started to teach the new curriculum before being trained on how to teach it.

As for teachers pre-service training programs, Y said that providers of such training (i.e., colleges of education) do not provide teachers with the necessary skills that are needed in the field/market. He stressed that part of this problem is due to the limited communication between

those providers and the MOE on what the needs of the MOE and teachers are, which would enable tailoring those programs to cater to the required needs.

Y expressed that if he were to organize a program to help improve the process of teaching and learning reading he would focus on developing the teaching force. He thinks that it is not enough to develop an effective reading curriculum and learning materials to improve the process of teaching and learning reading, it is actually the teacher who is the corner stone of this process that should receive our biggest attention. Without having teachers adequately equipped with the required skills, this curriculum and learning will not be as effective as planned.

Reading standards and assessment:

Y asserted that the level of our students in early grades in reading is unsatisfactory, as showed by the national reading survey (EGRA). Y added that he never heard of any other data or study that showed same results.

Y suggested that we do not have national assessments to assess students' level in reading. Reading is assessed by teachers who design their own assessment materials.

On whether there are instructions for teachers on how to assess students, Y said that, there probably are some instructions, but he does not know much about them because this issue is the responsibility of the exams and tests administration.

Y also does not know much if there are reading standards for reading specific skills against which students' level in reading can be assessed. He mentioned though that there are learning outcomes, which show what students are expected to achieve in each grade.

Learning to read and diglossia and second language learning:

As for the impact of diglossia on the process of learning reading, Zaid thinks that diglossia has a bad impact on this process, because students learn to read in MSA which they hear in the Arabic lesson only, and speak and hear the slang elsewhere. Students accordingly are not exposed enough to the language in which they learn to read and write.

Y also thinks learning another language beside Arabic from the first grade is also not good for students. He explained that students do not have enough capacity or ability to learn two languages at the same time, and that will slow down the process of learning to read in Arabic. He also thinks that we, subsequently, should teach English at a later age like we used to do before.

Y, however, does not know or has not heard of any research or data that would support his arguments (regarding the impact of diglossia and second language learning on learning reading). He said that his argument is based on personal impressions rather than concrete evidence.

Current and future reading intervention programs and initiatives:

Y did not specify any current intervention programs to improve children's reading ability. He though said that the Queen Rania Center might have some initiatives regarding providing training for teachers. He added they might also have some reading intervention programs. He however does not know much about these programs and therefore could not provide any further details.

As for remedial programs for children who read below grade level, Y said that there are resource rooms in schools set to serve the needs of such children. These programs, Y explained, are under the responsibility of the special education administration, and we do not have much to do about them.

Review of the interview: Head of the Exams and Tests Administration

Dr. C is the head of the Exams and Tests Administration. He has worked for 23 years in the MOE; most them working as a supervisor in the area of evaluation and testing before he became the head of the administration.

Reading Instruction:

Dr. C explained that reading used to be taught using the holistic approach, where a student is exposed to a reading text first, then a sentence, a word, and finally a letter. Learning reading happens while the student moves gradually from seeing and reading the text to finally learning the letter and its sound. Nevertheless and as a result of the national reading survey (EGRA), we have this year developed a new curriculum for the first three grades where we utilized the phonetic approach that focuses on direct teaching for letters and their representing sounds.

C justified the transition to the use of the phonetic approach to the fact the results of the national reading survey (EGRA) showed that students' level in reading is very low, which could be due to the use of the holistic approach. C also added that students in the holistic approach were 'repeaters' repeating text or s that usually presented them with a picture. So a student does not start learning to read by learning the letter and its representing sound, but rather by memorizing texts and sentences.

C also added that the decision to shift to use the phonetic approach was also based on field observations of some experts such as the head of Arabic language department at the MOE (Dr. S) who noticed that this holistic approach is not effective in learning reading.

Dr. C asserted that letters are introduced to children according to their difficulty level of pronunciations; from those with easy pronunciations to those more difficult ones. Also tashkeel is fully used in the first three grades, but later after that we start to remove them gradually.

C thinks that Arab states share some similarities in the way reading is taught, but he, however, could not specify the aspects of such similarity. He added that he noticed some differences in the reading curriculum in some Arab countries, such as the Syrian where more advanced language skills are taught.

Teachers training for early grade reading:

C explained that the MOE decided to enroll all new teachers in a preparation course that helped them develop skills need when becoming teachers. The training material for this course has been already developed and is now undergoing some review. The course consists of 120 hours and provides theoretical and practical training in how to specifically teach the different Arabic language skills such as listening, conversation, reading, and writing through exposing teachers to actual teaching situations.

C also added that all new teachers are going to be assessed on their teaching knowledge and skills to determine if they are ready to become teachers. If a teacher fails the assessment, C explained, he will be enrolled in a training program that helps him overcome his weakness.

C stressed that there is a progress in this new teacher training. He explained that in the past teacher training was limited in scope and provided while teachers are in service. The MOE strategy now is to have prospective teachers trained before they become teachers.

As for the current teachers and whether they will also be provided with training, C said that it will depend on the needs; each time we think they need training we will have them enrolled in a training course. For example, as a result of EGRA, we noticed that teachers need training on how to teach reading; we therefore, in an initial stage, trained 45 teachers chosen from different schools on reading different strategies.

C also asserted that the MOE has developed an instructional booklet for teachers that demonstrates different strategies for teaching reading. We are hoping that this booklet is helpful, as teachers are dealing now with a new curriculum.

As for the pre-service teacher training programs, C said that he knows that pre-service programs provide a practicum course to prospective teachers enrolled in these programs. Such practicum courses, C thinks, have a significant role in preparing teachers and building their teaching capacities. This training though does not provide teachers with specific training regarding how to teach reading and its different skills. C, therefore, stressed that he wishes there is some coordination between the MOE and providers of pre-service programs (universities and colleges) that help improve these programs so their content corresponds to the actual needs of the teaching field and also bridges the gap between theory and practice, an apparent problem in pre-service programs. Such coordination also would support the MOE so it alone does not hold the responsibility for training the teaching force in the country.

Reading standards and assessment:

As for students' level in reading in Jordan, C asserted that it varies across schools. He noticed from his field trips that in some schools students can read in the first grade, in some other schools students were struggling with reading and they were carrying their reading problems to the next grades. As I asked C how many students he thinks struggle in reading, he said he does not know. He added that the MOE does not carry out any national assessment to determine students' reading levels. However, results from the EGRA showed that students' reading ability is low and below the international level. C also thinks students in Jordan struggle with reading from the feedback he hears from his colleagues at the MOE and students' families, which constantly complain about their children's low performance in reading.

The assessment and tests administration, C later added, carries out a national assessment for students in grades 4 to 12 in the different schools subjects. Students' performance in Arabic language is quite low, as it never exceeds 54%, which means that only 56% of the students reached the accepted level of performance. Results of the assessment of fourth grade also showed that students' performance in Arabic language is significantly low.

As for the availability of reading standards, C explained that in Jordan we have student's school performance report that encompasses skills/learning outcomes for which teachers determine student's level of achievement (high, medium, satisfactory, or unsatisfactory). This report is not detailed to show student's performance in the specific skills of reading such as fluency and comprehension. C added that they started at his administration developing what he called 'performance indicators' for each school subject, including Arabic language. These indicators will help teachers assess students' performance in many skills. C said that for the first three grades they have not been finished yet because they lack experts and professionals who could help them in this area.

C gave me a copy of the 'school performance report,' and I noticed as I looked at it that for the first three grades the focus was on reading accuracy; reading fluency on other hand is not mentioned at all. That made me further probe this issue with him, asking about other reading skills and how and whether they are assessed. C, in his turn, explained that they usually assess reading through the number of words a student can read accurately. They decide on the accepted number of words based on what research says about this and opinions of the experts in this area. C, however, did not seem to know what is the accepted level of accuracy for the different grades. He pointed out that they do not have unified criteria that all teachers can refer to when assessing their students. Teachers' judgment on the accepted level of accuracy is personal and usually based on their experience. C agreed that more work and support is needed to develop this area of reading assessment.

Learning to read and diglossia and second language learning:

C thinks that diglossia hinders students' ability to learn to read because they have to speak two different languages; one at home and another at classroom.

C, however, pointed out that diglossia could be used to facilitate learning reading through the use of words that are used in both slang and MSA. We could help students make comparisons between the versions of those words in both languages to see that they are similar and how they were derived from MSA.

C also stressed that learning a second language also hinders the process of learning reading in Arabic. C referred to some countries like France, which does not teach another language beside French until fifth grade to help students master reading in their first language first. C also added that many studies also confirmed such problem with second language learning; he however could not cite or refer me to any study.

Current and future reading intervention programs and initiatives:

One of the main current interventions to improve the process of learning reading was the development of the new Arabic language curriculum. MOE also requested that all administrations coordinate together to develop training programs for teachers to help overcome students' weakness in reading. We also developed the assessment methods and materials where more assessment methods are used, such as the genuine assessment, which focuses on evaluating the student's performance and not only his achievement.

As for the availability of remedial programs for student's reading below the accepted level, C said that schools have resource rooms where students with reading problems receive a special

program that tackle their problems. C added that his administration does not have anything to do with this program, so he does not know much about it.

Finally, C said that if he had the chance to do something to improve students' reading level, would carry out a survey that will help map out the different methods used in teaching reading. He would also carry out a survey to assess our students' reading level. Based on results of both surveys we could put our hands on the problem facing our children in learning to read. We could, based on that, give suggestions regarding how to solve those problems and develop remedial reading programs.

Morocco Interview Summaries

Dr. Mhammed Abderebbi

1. The past experience shows that the past was better than the present as far as learning reading and writing in Arabic language.

- Since the independence until the seventies and eighties, the educational practices that Morocco had adopted were effective because they enabled students to acquire the skills of reading and writing in the earlier years of the primary level. Primary level teachers were very competent, and they used active methods, where students find their comfort. Their level was very high. The methodology used was based on starting from the part moving to the whole (i.e., from the letter to the word or phrase). It is to read the letter. It starts from learning how to read and draw the letter and then articulate them in classical Arabic at the lower levels, i.e., the first, second, and third levels of primary. In the upper levels, (the fourth and fifth), the methodology required to learn Arabic language in all its forms, whether the rules or as exchange or the sentence structure and learn of exchange and conversion, and linguistic analysis/I3raab.
- The teaching was conducted in classical Arabic and the writing was done by thinking in classical Arabic and not with Darija as is the case now. By the end of the primary level, the pupils acquired a good deal of reading skills and were able to read long stories and texts and write good narrative texts.

2. The currently used methodology in teaching reading in Morocco is not efficient and can't achieve its goals.

- Reading is taught as a separate subject. The methodology of teaching reading requires teaching children writing and expression, where by expression is taught first, i.e., reading a narrative text. And on the basis of this text, literary sentences are extracted that include letters, and then the letters are extracted, and then the letters are taught through their placements in the word. This method is called structural analytical methodology, and it starts from the whole, that is the text to the part, that is the letter. Two letters are taught in one week in the subject of reading, which generally includes 10 sessions in a week, and the duration of each is 30 minutes.
- This lack of time has pushed teachers and educational administrators to integrate reading in all other subjects such as science and Islamic education, because the curriculum insists on achieving coherence and integration between the session of reading and the session of writing. However, it is noticeable that when being integrated into other subjects, reading isn't given its due importance. Teachers often resort to Darija to interpret and explain lessons.

- Taking into account that the majority of students did not benefit from pre-school education, and that they find great difficulty in learning to read, many of the teachers do not apply the methodology as provided by the program and the curriculum—that is, teachers teach only one letter/week, instead of 2 letters.
- There are other factors that make teachers find it difficult to apply this methodology, and also makes this methodology unable to achieve the desired results, such as the large number of pupils in the classroom, up to 50 pupils, in addition to the lack of logistical tools that are necessary for teaching and the poor infrastructure and time pressure. All this makes the teacher aim at achieving the educational program on time instead of giving enough time to students to understand. And as a result to this, the students have poor skills in reading and most of the students in primary level don't know how to read and write.

3. Training of primary school teachers remains theoretical and not enough.

- Teachers benefit from training in the training centers before starting their job as teachers. This training takes two years with the completion of an empirical research and some practical sessions in schools. However the duration of this training has been decreased to one year in the past decade and they are not required to complete the empirical research; therefore the training remains in most part theoretical. Focus is not on how to teach with very few practical sessions. In addition, teachers no longer go out to do schools to conduct practical sessions. After graduation, every teacher has to develop a methodology for his work through professional practice and to get to know the experiences of former professors through interacting with them. They may also benefit from in-service training conducted by the MOE, which may take the form of pedagogical meetings organized by supervisors through which the obstacles that teachers face in teaching reading can be discussed so as to find suitable solutions.
- On the whole, teachers suffer from a huge lack of training. Many of them did not benefit from any training, although they spent more than 15 years in the profession. As a result, they don't have enough skills in reading methodologies. Most of the time they disagree with each other in terms of the methodology used the reading. Each one tries to apply the methodology based on his/her experience and own education or through what he/she has learned from other teachers. And so teachers are not able to teach reading in a good way.

4. There are two contradictory opinions regarding the double tongue impact on the process of teaching to read in Morocco.

- There is no discussion about curriculum links between classical Arabic and Darija or Tamazight language. In addition the use of Darija in classroom is not acceptable by teachers. Nevertheless, there are two opinions about the impact of the double tongue in teaching classical Arabic: one side sees that double tongue (both Darija and Amazeght) has negative

impact on the teaching of reading Arabic, since both are totally different from Arabic, especially in writing. Therefore they think it may represent a hindrance because both languages are different in the form of letters, and this is why this side teaches reading in classical Arabic, thinking that making use of Darija contributes to the lowering the level and may create a mental chaos for children. The other side, however, sees that using Darija in teaching reading may help students understand the lesson, and that is why teachers use Darija to facilitate the acquisition of reading skills. They base their opinion on the fact that Darija is closer to classical Arabic, and that it is easy for those who speak Darija to acquire the Arabic language skills.

5. There are two contradictory opinions regarding the impact of early teaching of a second language on the level of children's learning reading and writing in Arabic.

- The first side sees that it has a positive impact because learning a specific language at an early age helps the child learn a second language. Learning a second language at an early age is a sound process as it helps students understand and properly acquire languages. This group sees that there should be a suitable methodology to administer the variety of languages. This group justifies its position by the fact that there are several countries that have succeeded in teaching reading and in teaching more than four foreign languages for students who have not reached the age of ten years.
- The second group however sees that it has a negative impact and that it represents a hindrance. They based their opinion on the fact that students who learned French in the initial or primary education have difficulties in learning Arabic. And this weakness in Arabic may continue even in the preparatory and secondary education, and they often are confused between the French letters and the Arabic ones. For example, if asked to write the letter "B" in French they will write " ب " in Arabic, and the reverse is also true.

6. There are similarities or differences in teaching and learning to read in Arabic between the Maghreb and the Orient.

- Interestingly enough, most of the respondents expressed that they cannot do any comparison between the educational systems in the Arab countries because they have never communicated with educators in the Arab world or know the educational experiences of those countries.
- But on the whole, there is a group that says that the methods used in the teaching of Arabic language in all the Arab world is similar. Some say that the Arabic acquired skills in Morocco are better than some Arabic countries such as Algeria and Egypt, because the Egyptians mostly used the Egyptian dialect and most of them find it difficult to communicate in classical Arabic. Morocco follows Syria, Iraq, and Palestine, because they speak fluent Arabic language; we also find Qatar, Jordan, and Oman do as well.

- According to this group, these countries succeeded in the educational track because they have focused on learning how to read and write and on the quality of the curriculum instead of focusing on learning the rules of the Arabic language. Morocco has failed because the education system is not a focus on reading, but it gives more attention to the quantitative aspect; that is to say providing students with huge amounts of information, and it focuses more on learning the rules of Arabic language such as conversion and structural analysis/I3raab.

7. Are early interventions in reading for elementary levels being implemented in Morocco?

- Most respondents confirmed that there do not exist at the moment any interventions by the relevant ministry or international partners in this regard. They also emphasized that they did not receive any notes or correspondence related to that.
- All respondents reveal that currently they are working with a variety of curricula, and that has created several regional disparities among cities and villages.
- Most respondents confirmed that with the exception of the preparation of some training programs, there are no special programs or projects to promote reading at the elementary levels.

8. Are there remedial programs in reading for pupils who have been assessed below grade levels?

- Most of the respondents say that there is no current remedial plan. However, teachers follow several ways to fill the gaps in student reading. Interacting individually with the student who is poor in reading is considered the most important of those. In this case, teachers provide extra support to the student to fill the reported gaps. However this way is not enough because the adopted evaluation tools are poor and unable to accurately diagnosis the gaps. Added to that is the disruption of the planning process for the student support, and the poor skills of teachers in educational pedagogy.

9. What are the best practices in teaching Arabic reading?

- Most respondents confirmed that there are no ideal or successful practices in this field.
- There are those who believe that teaching methodology developed by the Moroccan Education for Girls Project (MEG project/USAID) in Morocco, which is still used in several training centers, is one of the successful experiences.
- There are other experiences for linking teaching and cultural activities, such as the experience of the Ministry of Youth and Sports and the Ministry of Culture experience, where workshops were created to read the book. This would feed a child's creativity and

help him/her acquire the tools to read and write. There are also experiments carried out by the Ministry of National Education, where a set of tools was created to teach a variety of subjects including Arabic language, and the use of audio-visual aids in teaching languages.

- There is the experience of Abu Alaa Maari School in Sidi Bernoussi in Casablanca, where the first grade is assigned to female teachers who have specifications of the successful generation school program under an emergency program. In this school, the committed director tried to mitigate classroom crowdedness in coordination with the commitment of the educational supervisor of the school. As a result there is respect to the school and to its environment, and the teachers are doing their job efficiently. All this has contributed to the high performance, and when these students complete the primary level, preparatory schools run after them in order to enroll them. They speak fluent Arabic, and the teachers teach only in classical Arabic.

Yemen Interview summary

Adnan Al Harazi (indicated by “my summary” as he had other people conduct some of the interviews)

1. Tell me what you remember about learning to read (in Arabic). What was the most important factor in your experience?

The researcher summary: Teaching reading mainly in the past utilized Al-Qaeda Al Baghdadi (the Baghdad Base which is tariqa hijaiyah) in addition to repetition and learning to read the Koran. This has helped learning reading Arabic properly with the correct pronunciations. Factors influencing learning to read in Arabic and the mastery of reading could be summarized as follows:

1. The teacher and the way s/he deals with the learner.
2. The family and their role in significantly speeding learning reading even before entering formal schooling.
3. The media (audio and readable) and the role they played in developing language skills, specially children’s programs that focused on educational purposes and utilized mascots and figures who were friendly and accepted for children like Open Sesame, The Arabic Version, City of Grammar, Abu Al Horroof, etc., which our children miss these days.

My summary: The interviewees were divided in answering this question. I trust the division is based on age because it seemed that people who hold higher positions (probably the oldest) where taught in the alphabetical way (tariqa hijaiyah) where they learned the letters first and in addition to repeating after the teacher. Then learning Qur’an has helped them read. The other group of participants learned reading through syllabus, where learners used to learn part of the word and repeat it till they are able to read. Only one participant mentioned that she was taught through learning the sound of the letter (phonetics way).

Important factors in learning reading:

Most participants believe that their teachers had the chief impact on learning reading well. Secondly, parents who were able to read also played an important role for them in learning Arabic.

Is reading taught as part of Arabic or is there a separate topic called “reading”? Be as specific as you can about where reading is explicitly included in the curriculum.

Reading is the only subject taught in the basic classes (grades 1-3). It is part of what is called the Arabic curriculum where students are taught different Arabic skills like reading, writing, and orthography. One respondent explained that in the early 90s the idea of integrating all Arabic aspects was introduced; however, teachers are still not able to master that well and they tend to teach the language in a separate sense.

3. How is reading taught in your country now? What methods do teachers use? How are they trained? Are there instructional standards for teachers, specifically related to reading? Can you talk a bit about what is contained in the standards? (i.e. what practices are teachers required to implement in their instruction?)

The researcher's summary: Teaching reading is now done through combining two different ways. This is called the integrated way where teachers combine both the holistic and the partial approach. It was developed after finding that each way does not cater to all learners' needs.

Also previously there wasn't any type of teacher training on methods and styles of teaching.

My summary: From the interviews I read there was not one method for teaching reading. It depends mostly on how the teachers decide to teach it, because there isn't a unified way or a best way. Some participants explained that teaching letters (*tariqa hijaiyah*) and using pictorial readings is the method they use. Another explained that the holistic method was used but recently there has been a push towards using the phonetics approach. Another teacher explained that although she believes that there needs to be a merge between the alphabetical and the phonetics way, the approach used in teaching Arabic reading is still about knowing letters shape and names and then moving from that to reading without connecting the sounds to the letters, which makes it harder for the students to read and results in weak readers or difficulty in reading. An Arabic supervisor explained that teachers use various ways based on what they have in the curriculum. It is more about individual teacher's effort rather than a systematic approach for the whole country.

One teacher (female) asserted that the old approach in reading where students learned the sound of the letters with the short vowels had its positive and negative sides. The old book did not have enough details and there was not many short vowel letter training and there was not much emphasis on student readings. Currently the book "*Nahj Al Qiraa Al Mubakirah*" [The Early Reading Approach] emphasize reading, but however it does not emphasize writing, which resulted on weakness in students' writing skills.

Another participant explained that currently in the new "*Nahj Al Qiraa Al Mubakirah*" there is emphasis on phonetics; however, it also focuses on comprehension and understanding meanings. The answers about the standards were mixed. One teacher (female) explained that although teachers get training, it is not holistic for all grade 1 teachers and it is not continues. There are some standards and approaches that teachers are encouraged to use, for example, songs, competitions, repetition, homework follow-ups, mistakes correction, motivating students to read.

An Arabic supervisor believes that there are no standards for teaching reading. It is all about individual efforts. However he believes that teachers need to motivate students for reading and start with preparing them psychologically, then introducing the letters phonetically followed by letter names. Students now have many distractions and they don't consider learning fun, while previously studying was considered an escape for chores and responsibilities hence it was considered fun.

Another teacher (female) finds that the problem lies in the curriculum itself, hence teachers should not limit themselves to the text book only, but they should be open to learning other methods like (Al Tariqa Al Baghdadi/ Al Hijaiyah) that will help students learn letters quickly.

Another person asserted that there is a subject taught at the College of Education for student teachers for teaching Arabic language and not specifically reading. It is called methods of teaching 1, in addition to the general teaching methods. After that, in year 4 student teachers do their practicum in schools where their supervisors monitor them and help correct them and make sure they use the methods they studied in teaching method 1. However the College of Education graduates Arabic teachers only and not specifically reading.

4. Are grade teachers trained explicitly in teaching the component skills of reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension)? Where do they receive this training (pre-service? in-service)?

The researcher's summary: There are generic standards that are not really utilized such as teacher's proficiency in reading, pronunciation, meaning revealing, increasing and decreasing voices, insinuations, etc. Additionally teachers need to be specialized in understanding children's attributes, which rarely happens. Mostly teachers who don't get opportunities teaching higher grades are sent automatically to teach early grade students. Also teachers in schools rarely get training. Only those who graduated from teacher training institutes (which were closed in the 90s) had that kind of training. Only recently the College of Education in Sanaa started training student teachers to be classroom teachers, but for grades 7-12.

My summary: Participants spoke about teacher standards and training to answer this question. The professor at College of Education explained that the program is new and students are taught to teach all subjects (classroom teachers). However, in-service training is done through the MOE institute for training.

A female Arabic teacher explained that teachers need to be proficient in both reading and writing and should have proper pronunciation skills. Female teachers should not cover their face in class (should not wear niqab) so students can see their lip movements to learn how to pronounce sounds of letters well. Teachers also need to read well aloud and clearly and be able to solve student pronunciation problems. Arabic teachers don't get specific reading training (perhaps it is available in private schools) and supervisors' main concern is to capture teachers' mistakes instead of supervising them. A supervisor for Arabic explained that teachers are currently not trained to teach reading since most of them are only high school graduates or only teaching diploma graduates and not specialized in teaching reading specifically. Also the director of the Education Leadership and Training Directorate confirmed that such specialized training is not provided for teachers because having a high school diploma or teaching diploma means one can teach at the early grades, hence you seldom find Arabic language specialized teachers teaching early grades. The ministry provides workshops to train and qualify teachers to teach Arabic language, however these workshops are inconsistent, limited, and not enough, and especially what is done in-service.

Another teacher explained that teachers need to be committed and follow up with colleagues. The general consensus is that there is not enough reading training and it is limited to in-service training.

5. Are children taught to read and to write simultaneously or does one precede the other (i.e., do children write letters as they learn to say them and identify their sounds? are children taught to write frequently used words?)?

The researcher's summary: This depends on the teacher's way. Hence there are teachers who start with letters and letters sounds then writing in the same period. Reading and writing need to be taught simultaneously.

My summary: The general consensus is that they need to be taught simultaneously, however some see that teachers start with teaching letter reading followed immediately or next period by writing, while others see that some teachers start with writing followed by reading and pronouncing letters.

6. How well are pupils in your country learning to read? Why do you say this? Can you cite recent data and/or some examples? Within educational circles in your country have you heard concern expressed about pupils' reading levels? If yes, can you tell us what the concerns are?

The researcher's summary: It is hard to measure students' proficiency in reading because of several reasons: the high numbers of students in class, weaknesses of Arabic teachers themselves in reading, lack of teacher training and preparation on teaching reading for early readers, limited family support in teaching basic Arabic reading skills for children before going to school, the lack of use of MSA for teachers of other subjects. There are general worries about weaknesses of students in reading, which will reflect negatively on students' ability to develop skills and knowledge and abilities and ways of dealing with others in addition to learning new things and being able to read Qur'an.

My summary: There are no clear data, however there is a general consensus anecdotally that there is general weakness in reading and there could be observed weakness in reading in students' in higher grades and university level due to the reasons noted. Parental support at home is crucial for students' reading level improvement.

7. Does your country have reading standards for pupils? If yes, what is the desired fluency rate for each primary grade? Do pupils meet these standards or do you see challenges? Do you find that pupils meet comprehension standards, (if these exist)? Why do you say this (i.e., is it based on data or evidence or your own observations)?

The researcher's summary: There are no pre-set reading standards, and it all depends on individual teacher's efforts. The fluency rate differs from one student to the other and from one grade to the other. On minimum students should be able to read 10-30 words/per minute in grade 1, and this should increase in every grade level. The challenges that impede improvement in fluency in reading are many and chiefly are: curriculum weakness and boring content because of the lack of diversity and frequent upgrading of the curriculum, weakness in teacher preparation

in modern styles of teaching, overcrowded classrooms. Students can reach the comprehension level if they are trained from the beginning on comprehending what is read.

My summary: The professor at the College of Education explained that there are standards in the curriculum used when the text book is developed. One teacher (female) thinks there are no standards for reading, it is all about individual teacher's efforts. A supervisor at the ministry explained that there are no standards, and there is a trend of worry that students are not learning to read well. According to another respondent, there are reading standards for children. He gave examples of pictorial reading, reading with expression, comprehending what is read, and pronouncing the words based on letters. On the fluency level, students should be able to read well 10 words in a minute and increase gradually, but this fluency level is hard to reach with the current challenges. One teacher explained that fluency level should be 50% on average, i.e., 10 words per minute and comprehension levels different based on grade level.

Another asserts that there are no reading standards and fluency level differs from one student to the other and from grade level to the other. He gives an example that in grade 1 a student should be able to read about 30 words in a minute. In grade 2 this should increase to 40 minutes and so on. As for the challenges facing learning reading, one respondent finds classroom teachers are not trained enough nor qualified enough to teach the subjects and that he will teach reading especially because it is the base of learning. Another teacher said that yes, there are standards for reading, but she never explained what they are. She elaborated that some students reach highest levels of comprehension and concentration without explaining what these standards are. The Director of Training at the Education Leadership Directorate asserts that there are standards for reading (as far as he knows). He also stated that a minimum of 10 words in a minute is the fluency rate for grade 1 and should increase based on grade level.

Another teacher (female) explained that there are standards for reading although she did not explain where they could be found. She also explained that 10 words per minute is the minimum standard, which increases based on grade level. If students are taught well and with parents, teacher support, and follow-up they will reach these standards.

8. How does diglossia impact the process of learning to read for children in your country? How is diglossia addressed to facilitate the acquisition of reading skills (i.e., is morphology emphasized to point out the links between dialect and MSA)?

Diglossia impacts learning reading, and the teachers need to be aware of styles and methods of teaching in general and teaching reading specifically. Colloquial language should only be used if necessary. Instead teachers should use simplified Arabic to explain things for students. It should be considered a mistake if teachers always use colloquial language. Additionally morphology could be used to connect MSA and colloquial language because most colloquial words stem from MSA words, and students need to be aware of that and aware that our MSA is the mother language from which colloquial words stemmed. It is also good to mention that children who are exposed to children's programs that use MSA tend to have fewer problems with diglossia because they are more exposed to MSA.

9. How does the fact that many pupils study a second language (usually with a different alphabet) in school from an early grade impact their learning to read and write in Arabic? Is this a help or a hindrance? Can you give examples or cite recent data/studies to support this?

The researcher's summary: Learning a foreign language at an early age is not useful because the student's vocabulary at this stage is limited and this will affect the foreign language acquisition. It is probable that student will face problems such as inability to differentiate between writing foreign language from left to write or vice versa, which leads to a kind of confusion even when memorizing words and their meanings. All this is based on the teacher's ability to teach the MSA in the proper way until the students reach the satisfaction and pride of learning the Arabic language. The foreign language is an additional language and should not be given more attention in comparison to Arabic language. Starting teaching a foreign language is preferable to start from grade 4.

My summary: One of the teachers explained that teaching a second language may affect some students because of the writing directions (left to write and vice versa), however other students might not find it hard to learn another language in addition to Arabic, because children have the capabilities to learn other languages depending on how they are taught. However students need to know that Arabic is the mother tongue and must to be proud of it; the foreign language is only an additional language.

Another teacher believes that teaching a foreign language does not impact student's understanding of their mother tongue (Arabic) provided you make Arabic a fun language, and this is the responsibility of the teacher, school administration, and the home. A third teacher clarifies that there is no impact of teaching a foreign language because every language has its own qualities, rules, and grammar. In fact students accept the foreign language more because of the book, its content, and design which is child-friendly. The challenges that I've noticed when I taught in a private school where both languages were taught simultaneously is that students find it hard to differentiate between writing directions so they sometimes write Arabic words from left to right.

Another respondent explained that theoretically teaching a foreign language will impact the acquisition of Arabic language (mother tongue) because most schools give the foreign language more importance. However it is possible to teach other languages with Arabic provided you give Arabic language more weight and importance. He elaborates by saying that the emphasis on teaching English is done because it is an international language, rich and developed. Additionally ways of teaching English are way more developed than the way we teach Arabic. For example curricula which were developed in the 90s are still used today. This makes both the teacher and student bored because of lack of exciting factors and activities. Curricula need to be reviewed and developed every five years at least. Additionally the Director of Training sees that teaching another language in fact help students to learn more languages.

10. What are some issues you have noticed regarding the transition from reading in Arabic to reading in a second language, including issues with language script?

The problems are involving foreign language words when speaking Arabic, and this phenomenon had become widely spread. Additionally there are orthographic problems, for example, direction of writing, or writing some Arabic letters in a similar form of some English letters (like the letter in Arabic and the number 3 in English). Another challenge is starting the sentence with the subject like the English sentence structure instead of starting with the verb.

11. Research suggests that helping children make morphological connections (identifying word roots), using short vowel markers for longer in the early grades, and exposing children to MSA in pre-school all contribute to better reading in Arabic. Do you think the teaching of reading in Arabic in your country takes this into account? Can you provide examples of projects or initiatives that demonstrate that?

Although morphology is important and helps ease Arabic language learning and reading, it is not utilized much in teaching reading or in reading books. Still the main problem lies in the un-qualified teacher who does not understand these issues and doesn't know how to utilize it efficiently. Additionally parents and family members are unaware of these characteristics, too. The new curriculum ("Nahj Al Qiraa Al Mubakirah") currently utilizes morphology in teaching reading.