Advancing Arabic Language Teaching and Learning

A Path to Reducing Learning Poverty in the Middle East and North Africa

Laura Gregory
Hanada Taha Thomure
Amira Kazem
Anna Boni
Mahmoud Abduh A. Elsayed
Nadia Taibah

WORLD BANK GROUP
Education

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PREFACE

I n October 2019, the World Bank introduced the concept of "learning poverty" to put a spotlight on the learning crisis observed around the world: while the majority of children are in school, a significant proportion are not acquiring fundamental skills. Together with the UNESCO Institute for Statistics, the learning poverty indicator was developed. This is a measure of the share of children who have not achieved minimum reading proficiency (including those out of school and assumed not able to read proficiently). The learning poverty indicator found that 53 percent of children in low- and middle-income countries across the world cannot read and understand a simple text by age 10, and that progress in reducing learning poverty is too low to meet the aspirations of the Sustainable Development Goals (SDGs) (World Bank 2019a). The World Bank launched an ambitious new operational global learning target to cut the learning poverty rate by at least one-half before 2030. The COVID-19 pandemic, with its associated school closures forcing countries to pivot to distance education, has put this target in jeopardy. The full impact of the pandemic in terms of student learning is not fully known; however, early indications point to a severe setback (World Bank 2021).

In the Middle East and North Africa (MENA) region, learning poverty rates are second only to those found in the Sub-Saharan Africa region. Fifty-nine percent of MENA's children are unable to read and understand an age-appropriate text by age 10. MENA has the greatest gender gap in learning poverty among all regions, with boys far more likely to be in learning poverty than girls (66 percent of MENA's boys are in learning poverty compared to 56 percent of girls).

Decades of investments in education, impressive growth in enrollment rates, and gender parity at almost all levels of education have not significantly increased human capital and wealth in the MENA region (World Bank 2019b). Despite a series of reforms, MENA has remained stuck at a low-learning, low-skills level. The World Bank's 2019 flagship report for education in MENA called for a push for learning, highlighting the need to build the foundational skills needed for future learning and success, modernize pedagogy and instructional practices, and address issues presented by the distance between colloquial Arabic and Modern Standard Arabic (MSA) (World Bank 2019b). The flagship report also noted the need to leverage technology to enhance education delivery, promote learning, and increase digital skills, all of which have become urgent because of the COVID-19 pandemic and associated school closures.

The purpose of the present report is to identify and explore the evidence on factors that are leading to high rates of learning poverty in MENA countries. In addition, the report proposes a path for countries of the region to make the teaching and learning of the Arabic language—which are critical foundations for children in Arabic-speaking countries—more effective. The intended audience of the report is education stakeholders in the MENA region, including officials in ministries of education across the region, those responsible for education decision-making, teachers, academics, education administrators, parents, and nongovernmental organizations, as well as World Bank and partner organization staff tasked with supporting countries in their efforts to raise learning and human capital.
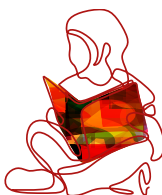
The intention of the report is not to provide an Arabic literacy strategy for each country since countries of the region differ and each would need to have their own national dialogue. Instead, the report collates the relevant literature from the region and beyond, as well as local and regional initiatives, and offers guidance to countries to advance the teaching and learning of MSA. As such, the report does not focus on the broader issues of language use within each country. As part of the process of developing the report, a summary of the emerging evidence and recommendations was shared with a small group of teachers from two countries across the region in advance of a focus group discussion to explore local views. Unanimous agreement on the key findings and recommendations were expressed by these teachers. Further discussions on the topics raised in this report are expected to take place during the dissemination of this report and in the months and years to come, leading to greater consensus across stakeholders on the best ways to advance Arabic language teaching and learning.

The report is structured in a way that first explores the incidence of learning poverty in the MENA region, followed by international evidence on the science of learning to read, and factors that are influencing Arabic language learning outcomes. The report then looks at some of the national strategies, policies, and initiatives already in place for Arabic language education, and proposes a path for advancing Arabic language teaching and learning, along with suggestions for regional collaboration efforts that could further support MENA countries.

ACKNOWLEDGMENTS
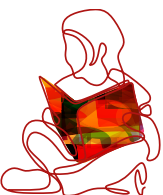
ABBREVIATIONS

ALIGNS   Aligning Levels of Instruction with Goals and the Needs of Students

EAP   East Asia and the Pacific

ECA   Europe and Central Asia

EGRA   Early Grade Reading Assessment

GCC   Gulf Cooperation Council

GER   gross enrollment ratio

HCI   human capital index

IEA   International Association for the Evaluation of Educational Achievement

MENA   Middle East and North Africa

MSA   Modern Standard Arabic

OECD   Organisation for Economic Co-operation and Development

PIRLS   Progress in International Reading Literacy Study

PISA   Programme for International Student Assessment

SAR   South Asia Region

SDG   Sustainable Development Goals

SSA   Sub-Saharan Africa

TaRL   Teaching at the Right Level

TIMSS   Trends in International Mathematics and Science Study

UDL   Universal Design for Learning
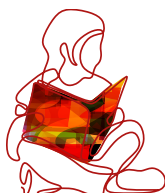
EXECUTIVE SUMMARY

Across countries of the Middle East and North Africa (MENA), 59 percent of children are in learning poverty—they cannot read and understand an age-appropriate text by age 10 (World Bank 2019a). This rises to 63 percent, on average, across MENA's low- and middle-income countries. Not being able to read with comprehension by age 10 is preventing most of the region's children from fully engaging in their education and holding back countries' progress in human capital formation. Improving Arabic language teaching and learning would boost overall learning outcomes. Governments need to pay close attention to this to improve education outcomes overall and human capital accumulation in the longer term.

Arabic is spoken by over 467 million people across 60 countries of the world.[1] It is the official or co-official language of 25 countries. Arabic can be considered as a continuum of forms, from the formal Classical Arabic—the language of the Qur'an—and Modern Standard Arabic (MSA) to the many informal, colloquial versions used in everyday communication. To be considered fluent in Arabic, one needs to master a dialect and MSA.

Unlike dialects, which children acquire early on at home, MSA is acquired through formal education (Al-Huri 2015; Zughoul 1980). Its use is almost entirely restricted to literature, official documentation, mass media (including oral), and education. MSA is expected to be the language of classroom instruction throughout the Arabic speaking world (including most MENA countries). As soon as children enter school, they are expected to start learning to read and write in MSA.

This poses several challenges.

Firstly, before starting school, some children have very little exposure to formal (non-dialect) Arabic; others may hear it through cartoons dubbed in MSA, being read to, or through listening to the Qur'an being recited at home (where applicable). Children's experience with MSA is very limited before they reach school age because of low rates of parents reading to children at home and a lack of participation in formal early childhood education. The two ends of the Arabic language continuum, or the diglossic nature of the language (two variations of the same language used under different conditions within a community, often by the same speakers), raises challenges for children learning to read. The degree of overlap between MSA and dialect is greater in some countries than in others so the effect varies by countries. These challenges can be addressed by purposeful actions such as having a language-rich environment, early exposure to MSA, and high-quality instruction that is based on the science of learning to read and that maximizes the overlap (which is sometimes high) between MSA and colloquial varieties. However, there are many practices related to the development of preliteracy skills and the teaching and learning of Arabic in preschool and the early grades of school

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1   Includes first and second language speakers; based on a 15-yearlong study by Ulrich Ammon, University of Düsseldorf, Population Reference Bureau.
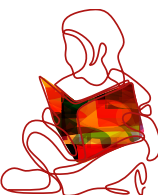
that are resulting in poor literacy outcomes. This puts children at a disadvantage at the start of their schooling and goes on to affect further learning throughout their school lives and into their adult lives.

Opportunities in the planning and delivery of Arabic language instruction that could help to overcome the challenges inherent in a diglossic language are too often missed. Overall, pedagogical knowledge—how best to teach Arabic language to young native speakers—needs strengthening and consistent application. For example, there is significant convergence between dialects and MSA in terms of lexicon (vocabulary), which should be capitalized on in the development of curricula, teaching and learning materials, and teacher education to help children learning to read (Kwaik et al. 2018; Saiegh-Haddad and Spolsky 2014). A lack of careful sequencing and planning in language instruction means that this convergence and similarity are not being used to form the bridge for children from colloquial to MSA. In addition, low-quality instructional materials, poor curriculum design, and ineffective teaching methods make it difficult for children to learn MSA. Children are taught to read and write in a rigid way (more so than in other core subjects), with a focus on rules, grammar, and accuracy and a lack of the playfulness and inquiry that are needed to fully engage children in literacy learning (Taha-Thomure 2008).

Findings from research into the science of language learning (listening, speaking, reading, and writing and their interactions) are yet to translate into Arabic instructional practices (Miles and Ehri 2019; Kintsch and Rawson 2008). For example, systematic phonics instruction (explicitly teaching children letter-sound combinations and to "sound out" words) is rare in schools of Arabic-speaking countries, despite research from neuroscience and education consistently showing its importance (Abadzi and Martelli 2014; Castles, Rastle, and Nation 2018). While phonics-based instruction has been introduced to some degree in almost all MENA countries, the history of whole-word approaches to teaching has not subsided in several countries, with misconceptions and ineffective practices remaining (Saiegh-Haddad and Schiff 2016).

Teachers, including many Arabic language teachers, are themselves the product of ineffective Arabic language education and often are not comfortable using it as a medium of instruction. Very few university teacher preparation courses include Arabic pedagogy studies (including the study of language development and methods for teaching Arabic from the early years to the more advanced levels). Phonics training, early literacy training, the science of reading, and children's literature classes have not been integrated into the majority of teacher preparation courses (USAID 2019).

Parents in Arabic-speaking countries are less likely to have children's books in their home and less likely to read to their children, as indicated through parent responses in the Progress in International Reading Literacy Study (PIRLS) 2016. For example, while around 80 percent of children in some high-performing countries have parents or caregivers who often read to them, this happens in MENA for only around 20–25 percent of children (Mullis et al. 2017). This is a concern given the evidence that children can transition easier from their mother tongue dialect to the language of instruction if children's literature is regularly read to them early on (Stahl, Richeck, and Vandevier 1990). There are even some

cases in which parents infrequently talk with their young children in dialect, stifling the development of oral language. For example, in Morocco, 21 percent of parents reported never or almost never talking with their preschool-aged child about things they had done (compared to the international average of 4 percent); 35 percent never or almost never talked with their preschool children about what they had read (compared to 12 percent internationally); and 51 percent never or almost never played word games with them (compared to 16 percent internationally) (Mullis et al. 2017).

Parents are also evidently incentivized to introduce foreign languages to their children at an early age, which may compete with time and priority given to Arabic language. In some cases, this includes enrolling them in schools using foreign languages instruction—not only high-end international schools, but also low-cost private schools as well as government language schools (with fees) as is the case in Egypt. This is driven by labor markets favoring foreign language skills and social perceptions of the value of certain foreign languages (UNESCO 2019). It may also be driven by a (at least perceived) higher quality of instruction in those foreign language schools. In some cases, those foreign languages have been introduced early in the curriculum with more exposure to that language, possibly competing with time for Arabic language instruction.

Finally, there may be a lack of awareness of the severity of the problem of low learning outcomes in the Arabic language. Self-reported fluency and love of reading are higher in MENA countries than in other countries (as shown in the results of the 2018 OECD Programme for International Student Assessment), cases of grade inflation are high, and there is generally an absence of well-functioning national assessment systems to track student performance, make results widely available, or monitor a national literacy strategy (World Bank 2019b). These factors may contribute to the disconnect between beliefs about the effectiveness of Arabic language teaching and learning and the actual outcomes. Relatedly, the recent "Arabic Language Status and Future Report" (United Arab Emirates Ministry of Culture and Youth 2020) found that students have favorable attitudes toward Arabic but unfavorable views on how it is taught.

This report examines the literature to identify gaps in the teaching and learning of the Arabic language in MENA countries that are leading to high rates of learning poverty. In addition, the report presents a **proposed path** to guide countries in their efforts to advance Arabic language teaching and learning, summarized as follows:

1. Develop specific, quantifiable goals for children's Arabic language learning outcomes in the short and long term with support from the highest levels of government and clear links to countries' social and economic policy goals, for example through a national literacy strategy. *Promote the goals widely and accompany them with associated action plans for all key actors, along with mechanisms to monitor and evaluate progress toward the goals. Key actors include government departments responsible for education, child development, finance, and planning, as well as university faculties of education, research centers, teacher training colleges, teacher professional organizations, educators, developers of curriculum*

and teaching and learning materials for Arabic language and all subjects, children's authors, producers of children's entertainment, and researchers, among others. Use media to reinforce key messages and engage the whole of society in efforts to raise Arabic language learning.

2. **Define and harness common features and vocabulary between MSA and colloquial forms of Arabic to build a bridge between children's knowledge of colloquial Arabic and learning of MSA.**
   Explicitly teach links between colloquial and formal Arabic using targeted materials, recognizing the extent of overlap and using this to support children's learning. This includes starting with simple words that are used in MSA and dialects, highlighting common patterns, and explicitly teaching phonemes that exist in MSA.

3. **Expand children's early exposure to MSA, especially vocabulary and syntax, in engaging ways.**
   Encourage parents to increase their children's exposure to MSA, including reading to their children in MSA from an early age. In school, explicitly teach sounds, vocabulary, and syntax from MSA that are not found in local colloquial Arabic. Inside and outside of school, increase children's access to engaging children's literature, cartoons, and children's television programs in MSA. Implement strategies to bolster children's early oral language development and engagement with literacy activities and MSA, in and out of school, especially for boys, given the significant underperformance of boys in many MENA countries.

4. **Set detailed standards for reading progression based on the science of learning to read, with aligned high-quality and contextualized teaching and learning resources (including digital resources), teacher guides and professional development (to scaffold teaching), and diagnostic assessments.**
   Focusing initially on the early grades of formal schooling, incorporate a phonics-based introduction to reading, enrich vocabulary and listening comprehension, explicitly teach word patterns, and enhance comprehension skills (especially higher-order thinking skills) through direct and explicit instructional strategies (for example, daily reading aloud of children's literature in class, more freedom to use "less formal" MSA words, and classroom environments rich in children's literature that appeals to boys and girls). To monitor children's progress, build activities into lesson plans that help teachers "check for understanding" daily, determine student understanding of new concepts, and apply early grade reading assessments periodically. This structured start to Arabic language learning should be built on across the K to 12 grades to promote higher-order reading and critical thinking skills.

5. **Revisit Arabic language teacher education programs (pre-service) and teacher professional development programs (in-service) to add Arabic language pedagogy studies, extensive practical experience with students, and effective planning for student learning.**
   Improve teachers' understanding of the principles of teaching the Arabic language and effective methods of teaching, and their ability to implement these methods, including

phonics methods, plus their skills in managing and planning for learning, including explicit strategies for supporting boys' learning.

6. Ensure that every school has a robust early grade Arabic instructional program with sufficient time allocated, aligned school leader responsibilities, and support for teachers.
    Develop resources for schools to create clear instructional goals for each child and corresponding simple monitoring tools to assist follow-up and ensure learning for each individual. Provide essential materials and training to the leadership and instructional teams in every school. Materials should include engaging learning materials for every child and supportive guides for every teacher with supplementary reading materials. Training should include continuous professional development for school leaders and teachers on effective literacy instruction, teacher coaching by experienced school-level or external personnel, and formative supervision. Ensure sufficient time for reading instruction and practice. Give priority to Arabic language development, particularly reading and writing. This might require less compartmentalization of subjects in the early grades and support for literacy learning across subjects.

7. Identify, support with early intervention, and monitor struggling readers, especially in the early grades.
    Encourage teachers to use diagnostic assessment to understand learners' needs, engage and motivate reluctant readers by providing appropriately leveled reading materials that match students' interests, and involving parents and caregivers. Delay the move to unvowelized text until developmentally appropriate and give choice across the grades in which children are transitioning. For those who need more support, continue to provide vowelized text. Ensure that early intervention programs include targeted screening for vulnerable populations, including children with disabilities and refugees.

Opportunities for sharing and collaboration could support and strengthen work already underway across Arabic-speaking countries. This might include, for example, sharing standards for the development of Arabic language teaching and learning materials, a network of university faculties of education to build specialization in Arabic language pedagogy, and a prioritized research agenda.

A Path for Reducing Learning Poverty in MENA

1 Develop specific, quantifiable goals for children's Arabic language learning outcomes in the short and long term with support from the highest levels of government and clear links to countries' social and economic policy goals, for example through a national literacy strategy.

2 Define and harness common features and vocabulary between MSA and colloquial forms of Arabic to build a bridge between children's knowledge of colloquial Arabic and learning of MSA.

3 Expand children's early exposure to MSA, especially vocabulary and syntax, in engaging ways.

4 Set detailed standards for reading progression based on the science of learning to read, with aligned high-quality and contextualized teaching and learning resources (including digital resources), teacher guides and professional development (to scaffold teaching), and diagnostic assessments.

5 Revisit Arabic language teacher education programs (pre-service) and teacher professional development programs (in-service) to add Arabic language pedagogy studies, extensive practical experience with students, and effective planning for student learning.

6 Ensure that every school has a robust early grade Arabic instructional program with sufficient time allocated, aligned school leader responsibilities, and support for teachers.

7 Identify, support with early intervention, and monitor struggling readers, especially in the early grades.

LEARNING POVERTY IN MENA

The human capital index (HCI) shows that a child born in the Middle East and North Africa (MENA) region today will be 57 percent as productive as they could be with complete education and full health (World Bank 2020). The school-related component of the HCI highlights that schooling is a key constraint to human capital formation in MENA countries—both in expected years of schooling and harmonized test scores. On average across the MENA region, the expected years of schooling is 11.6. However, the learning-adjusted years of learning, whereby the expected years of schooling are adjusted for student learning outcomes, is 7.6, suggesting that students in the region lose about four years of learning due to poor-quality schooling.[2]

More than one-half (59 percent) of the children in MENA countries are in learning poverty—they cannot read and understand an age-appropriate text by age 10. This is preventing the region's children from fully engaging in their education and holding back countries' progress in human capital formation. When limited to middle- and low-income countries in MENA, the learning poverty rate is 63 percent. The rate is particularly high in Yemen, Egypt, Morocco, and Tunisia (figure 1).

Figure 1. **Learning Poverty Rates, c. 2016**
Percent of children not reaching proficiency by late primary school age
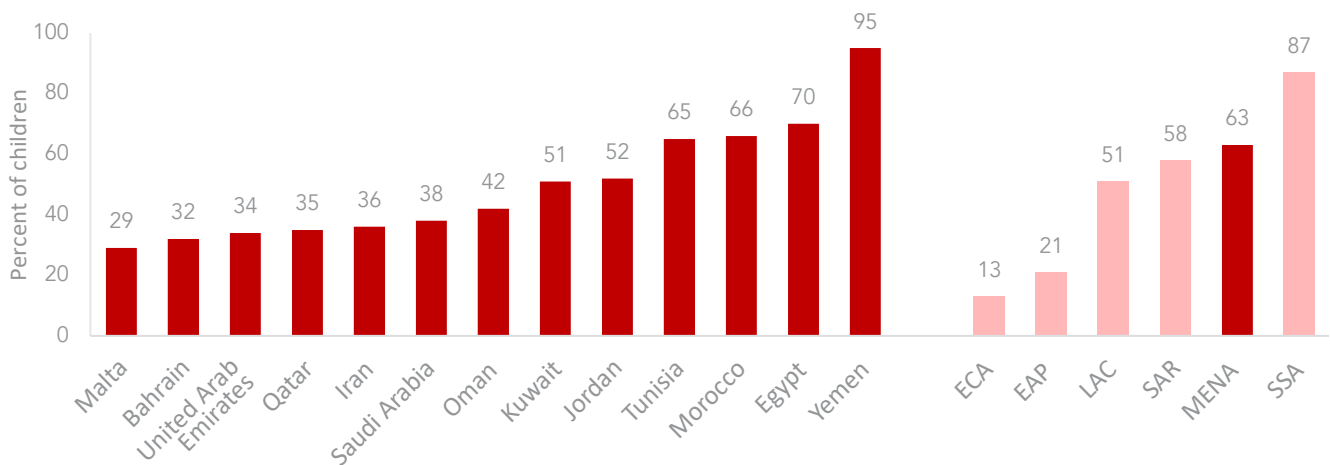
Source: World Bank EdStats database.
Note: ECA = Europe and Central Asia; EAP = East Asia and Pacific; LAC = Latin America and the Caribbean; SAR = South Asia; MENA = Middle East and North Africa; SSA = Sub-Saharan Africa.

The learning poverty rate (figure 1) is calculated using the results of international student assessments, predominantly the 2016 Progress in International Reading Literacy Study (PIRLS) in MENA countries, adjusted for the percentage of out-of-school children. Findings from other national and international assessments confirm that students in the region lack basic literacy and numeracy skills from the earliest

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2   Data are for 2017 from the World Bank's EdStats database. Learning-adjusted years of school are calculated by multiplying the estimates of expected years of school by the ratio of most recent harmonized test scores to 625.
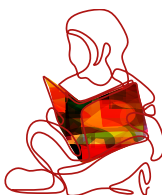
grades up to secondary school. For example, the Early Grade Reading Assessments (EGRAs) conducted in several MENA countries suggest that 52 percent of grade 2 children in Iraq, 67 percent in Morocco, and 81 percent in Yemen could not answer a single reading comprehension question correctly.[3]

Beyond reading, levels of learning in other subjects are also low in Arabic speaking countries. The 2019 Trends in International Mathematics and Science Study (TIMSS) found that grade 4 and grade 8 students in Arabic speaking countries scored well below the centerpoint (which is the average of TIMSS 1995 participating countries) (figures 2 and 3). By age 15, performance in reading, mathematics, and science remains well below the average of Organisation for Economic Co-operation and Development (OECD) countries, as seen in the 2018 Programme for International Reading Assessment (PISA) (figure 4).

Figure 2. **Grade 4 Mathematics and Science Achievement, TIMSS 2019**
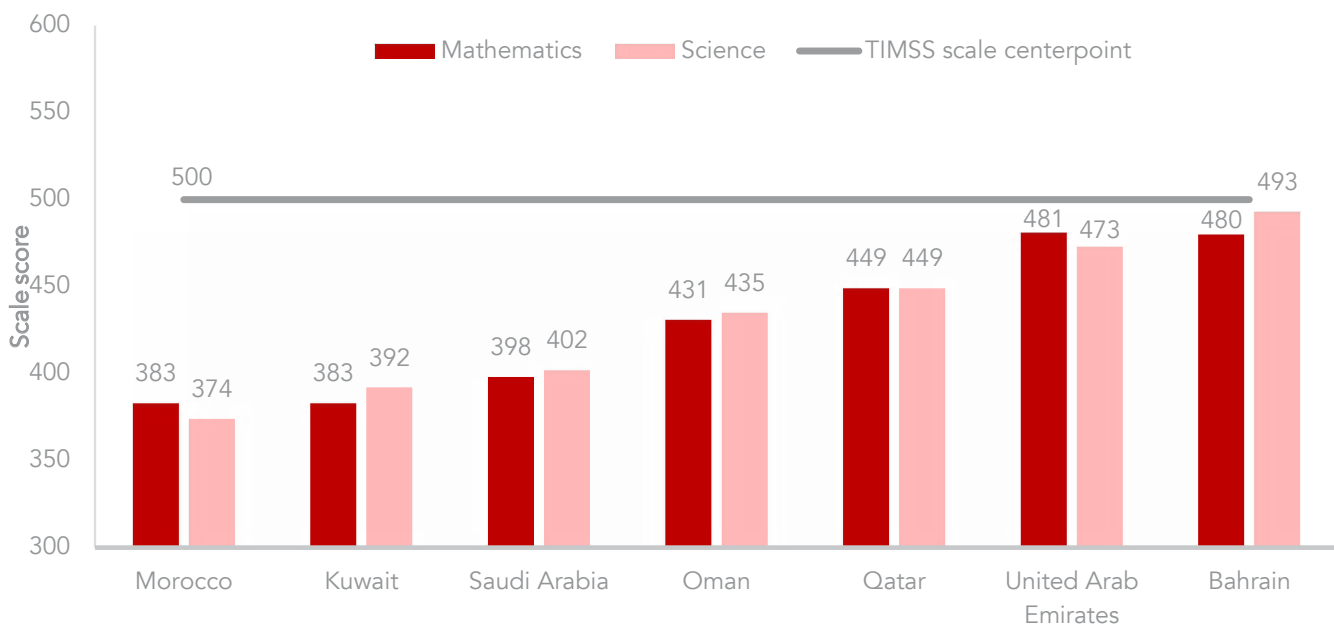
Source: IEA TIMSS 2019 database.

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3   Data are from the Early Grade Reading Barometer.

Figure 3. Grade 8 Mathematics and Science Achievement, TIMSS 2019
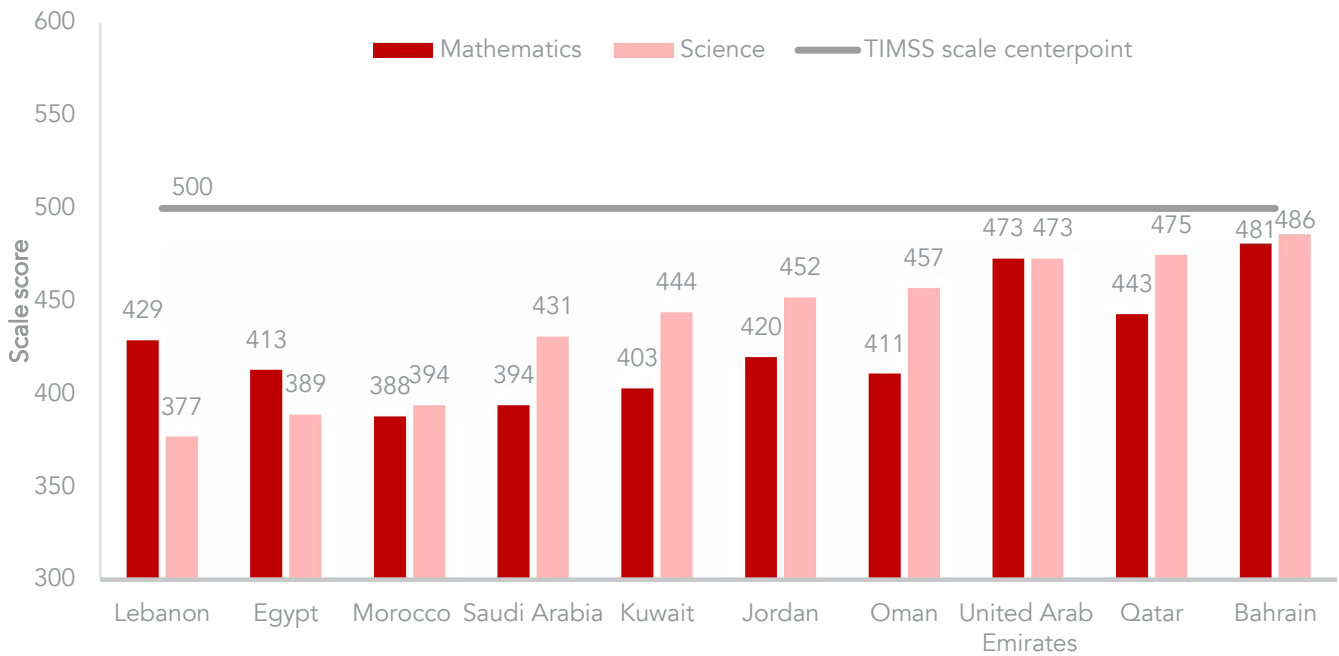
Source: IEA TIMSS 2019 database.

Figure 4. 15-Year Olds' Performance in Reading, Mathematics, and Science, PISA 2018
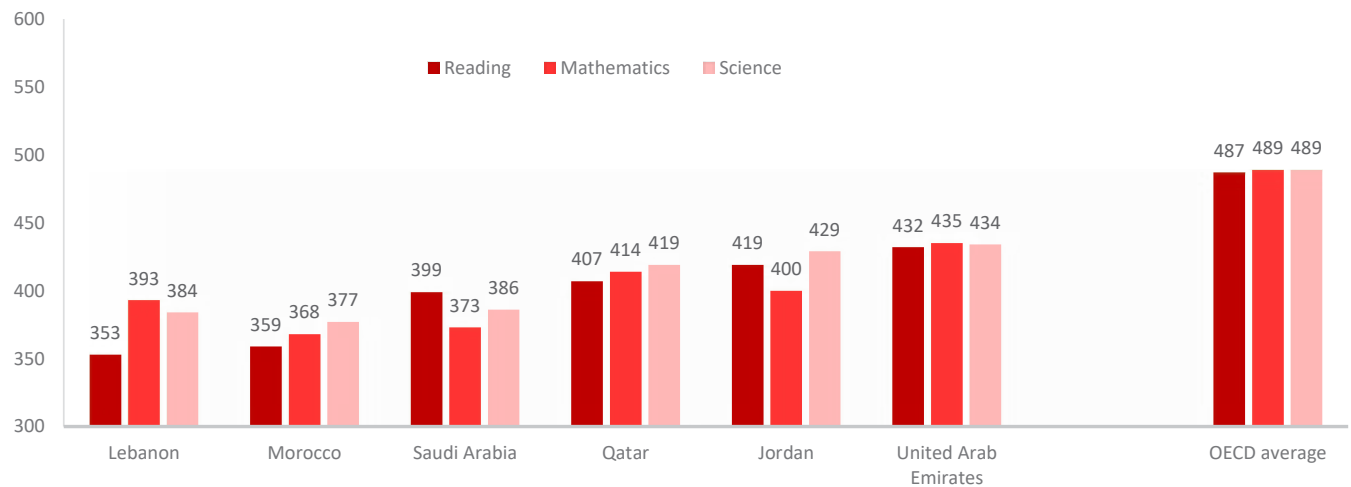
Source: OECD PISA 2018 database.

The MENA region has the greatest gender gaps in learning poverty among all regions, with boys more likely to be in learning poverty.[4] On average in the MENA region, the learning poverty rate is 10 percentage points higher for boys than for girls (66 percent for boys compared to 56 percent for girls). This compares to the difference of 8 percentage points in East Asia and the Pacific, 4 in Latin America and the Caribbean, 3 in Sub-Saharan Africa, 2 in Europe and Central Asia, and 1 in North

4   Gender disaggregated information is not available for the South Asia region.

America (all in the direction of higher rates among boys). The greatest gender differences are found in the Gulf Cooperation Council (GCC) countries and Iran (figure 5).

Figure 5. Learning Poverty Rate by Country and Gender, c. 2016
Share of 10-year olds below minimum reading proficiency adjusted by out-of-school children (%)
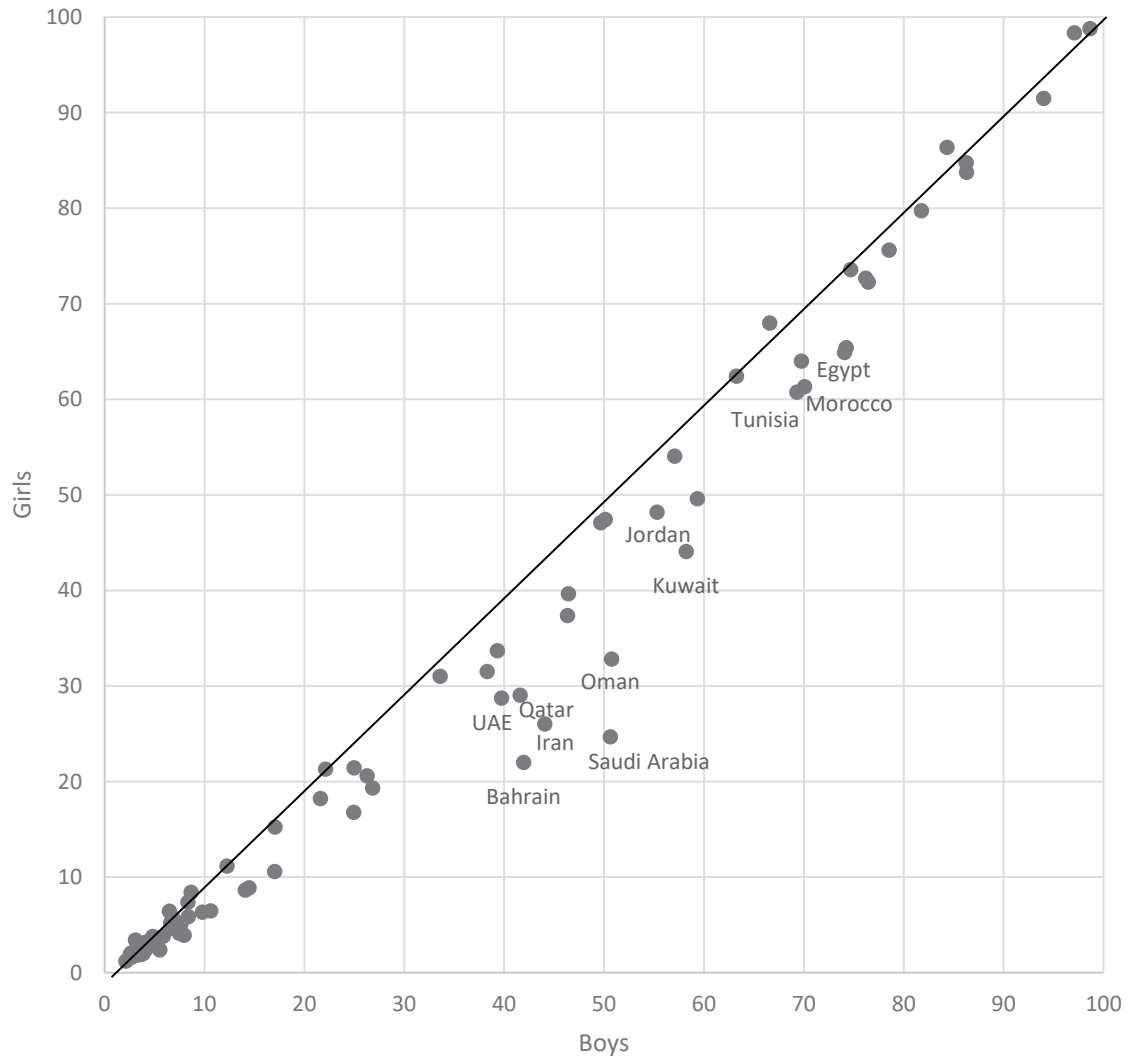
Source: Based on data from World Bank EdStats; joint World Bank and UNESCO Institute for Statistics data.

Boys' underperformance in reading is particularly substantial in the GCC countries, as well as Iran, Egypt, and Jordan, based on the results of the PIRLS assessment of fourth-grade students. In general, boys have a greater level of underperformance in reading among children in rural areas (towns, villages, and remote areas) compared to urban areas (cities, suburbs, and medium to large towns), with the greatest gaps found in Saudi Arabia, Iran, and Qatar (World Bank forthcoming (a)).

In the following sections of this report, factors associated with the high rates of learning poverty in MENA are explored, starting with a synthesis of the literature related to the science of learning to read.

THE SCIENCE OF LEARNING TO READ

With suitable instructions, most children should be able to read and understand an age-appropriate text by age 10. To do that, children need to master many skills and subskills. In this section, the wealth of research evidence on the process of learning to read is explored. This evidence applies to all alphabetic languages. Within this context, the subsequent section explores issues specific to the Arabic language that influence Arabic language learning outcomes.

Two sets of skills are fundamental, regardless of language: (1) the ability to comprehend oral language, and (2) the ability to recognize printed words (World Bank forthcoming (b)). The importance of these two sets of skills indicates why a language-rich environment is needed from the earliest moments of childhood—reading cannot be disconnected from listening and speaking (and writing cannot be disconnected from all three).

Infants learn the sounds of their native language quickly, well before they can reproduce them. This phonological development continues and refines through to the early grades of school. At around the first birthday, children can comprehend words but not yet produce them. In the second year of life, the size of vocabulary sharply increases, as it continues to do so during the preschool and school years, though this can vary by family circumstances and the extent of exposure to language (Snow, Burns, and Griffin 1998). From there, grammatical development is rapidly acquired, including knowing how to order words for different meanings as well as knowledge of sentence structure, and understanding how to use language in social contexts. Metalinguistic skills—not only using the language but thinking, analyzing, playing, making judgments about it, and understanding the internal structure of words—develop from age three or younger and throughout the school years (Snow, Burns, and Griffin 1998).

These language development skills apply to all children learning to read, irrespective of language. For alphabetic languages such as Arabic or English, skills associated with phonological awareness are also required, which involves metacognition in relation to the auditory aspects of spoken language. One of these skills is particularly important—phonemic awareness—which involves understanding that words are made up of smaller sounds (phonemes), identifying those sounds, and differentiating between them. A lack of phonemic awareness in kindergarten or grade 1 students is associated with later problems in learning to read (Blachman 2000; Juel 1988). Phonemic awareness, phonological awareness, and letter knowledge are significant predictors of reading achievement regardless of the language (Muter and Diethelm 2001).

Neuroscience research supports these conclusions by finding that, in alphabetic languages, words are mapped into memory through the connections between sound and the symbols that represent that sound, rather than through memorizing a whole strings of letters (Miles and Ehri 2019). Beginner readers need to start with processing each letter of a word to build up a memory bank of recognized words—a lengthy process that needs accuracy before any thought of pushing for speed and fluency (World Bank forthcoming (b)).
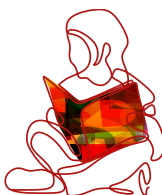
Having full letter knowledge involves knowing letter names as well as their associated sounds. The Arabic alphabet includes dyads and triads whereby the same characters differ in terms of the placement of dots (for example, ج خ ح). For all Arabic letters, the letter name contains the letter sound; this is referred to as "iconic." In addition, all Arabic letters are "acrophonic"—the letter name starts with the letter sound. This makes it easier for children to learn the letter–sound associations (Share 2004; Treiman et al. 1998). The position of the different versions of the letter in a word adds to the total number of letter–sound associations that children need to learn.

Methods that explicitly teach the matching of speech to print and the decoding of words, known as "phonics," rely on building strong phoneme awareness. But, knowing how to decode does not result in learning to read. If the decoder does not have some lexical knowledge of age-appropriate vocabulary and is not familiar with the language, they will not be able to connect it to meaning, and will soon forget the decoded word. So, knowing the meaning of lots of words and knowing names of objects and phenomena that they encounter in their daily life helps children acquire the needed lexicon to become fluent readers with comprehension (Stahl and Fairbanks 1986). For this reason, oral language comprehension is a necessary prerequisite of learning to read. The more words a child knows, the greater the links between printed and spoken words they will be able to make when learning to read. The relationship works both ways: the more children read, the more their vocabulary increases; and the greater their vocabulary, the more they are able to read (Taha-Thomure 2009). Therefore, a wide variety of reading material should be available for beginning readers (Hedrick and Cunningham 2002). Listening to someone read increases word knowledge; when combined with scaffolded and explicit reading instruction, this can support children with lower vocabulary skills (Stahl, Richeck, and Vandevier 1990). The more that children engage with oral language, the better, and this should be a key feature of children's early years, as well as preschool and the early grades of schooling, for example through daily reading aloud of stories, modeling and imitation, and conversations, along with explicit teaching of vocabulary and practice. For this reason, most good literacy education strategies have a "listening and talking" component as part of the curriculum to actively build up these skills. Expressive and comprehension language assessments can be important in the early years to gauge readiness to read. In fact, such assessments have found that poverty alone reduces the vocabulary a child has at school entry by up to 12 months (Scottish Government 2012).

Fluency in reading is important for processing what is being read and for comprehension. Struggling readers tend to lack oral reading fluency (Allington 1983). This requires practice, for example, by modeling a teacher's fluent reading, engaging in shared reading where specific reading strategies are learned, and the repeated reading of texts (Smith 1979; Allington 1977; Cunningham 1979; Samuels 1979). Students who are not fluent tend to divert much of their attention to decoding words rather than to the meaning of what is being read, which leaves them frustrated, demotivated, and cognitively fatigued.

Box 1. The Early Grade Reading Rainbow

Students should learn:

Lots of spoken words and how to use them (Red)

To hear and make the sounds of words (Orange)

To map sounds to letters and letters to sounds, and learn letter names. (Yellow)

To understand how letters make words and words are written with letters. (Green)

To recognize words and meaningful word parts and roots automatically. (Blue)

To read and write longer and more difficult chains of words, phrases, and sentences smoothly. (Indigo)

To comprehend the meaning of texts read and build background knowledge. (Violet)

To love reading and read for both enjoyment and learning. (Rainbow)

Source: world Bank forthcoming (c).

Comprehension is the goal of reading but also a process that goes beyond understanding the meaning of words to a complex set of mental representations (Kintsch and Rawson 2008). Comprehending a text requires knowing the meaning of 90–95 percent of the words in the text (Nagy and Scott 2000), as well as knowing and using reading comprehension strategies, such as identifying the organizational structure of the text (Kamil et al. 2008). Reading comprehension instruction helps students learn to read, which then helps them read to learn in higher grades where the content will become quite deep, specialized, rich in academic language, and extensive, thus requiring fluency. Strategies for reading comprehension instruction include summarizing or retelling printed text, filling in missing information, or answering questions involving recall or higher-order critical thinking. These instructional strategies are only appropriate at the right stage in a reader's development. For example, asking a very early beginner reader to guess a missing word from the context is not as beneficial in terms of learning to read as asking them to sound out a word using their knowledge of phonics (Castles, Rastle, and Nation 2018).

The Early Grade Reading Assessment (EGRA), originally developed by RTI International under USAID's Education Data for Decision Making Initiative and adapted and applied in over 70 countries, measures the subskills of reading, including those described above (Gove and Wetterberg 2011).

In an effort to help countries address high rates of learning poverty, the World Bank has developed "The Early Grade Reading Rainbow" (box 1). The rainbow is intended to clarify (1) what children must learn to become fluent readers, and (2) how this content should be structured. The actions and skills set out in the rainbow address the findings of the research into how children learn to read and the pedagogies that strengthen literacy in any language.

FACTORS INFLUENCING ARABIC LANGUAGE LEARNING OUTCOMES

Arabic is spoken by over 467 million people across 60 countries of the world.[5] It is the official or co-official language of 25 countries. With young populations and high rates of learning poverty in the Middle East and North Africa (MENA's) Arabic-speaking countries, this means that there are millions of children who are not being adequately supported in learning to read. Therefore, a close look at the factors influencing Arabic language learning outcomes is crucial. This section of the report starts by examining aspects of the Arabic language (such as its orthography, morphology, and syntax) that have specific implications for the teaching and learning of Arabic among native speakers over and above the general principles outlined in the previous section. This is followed by a discussion of other key factors influencing Arabic language learning outcomes, including the early childhood period from birth to school, Arabic language curricula, approaches to the teaching of Arabic, teachers, texts and children's literature, time allocated to Arabic language instruction, perceptions of Arabic language learning, and support for struggling readers.

Aspects of the Arabic language

Arabic is often referred to as a diglossic language because it includes two varieties used under different conditions: one a high, standardized variety known as Modern Standard Arabic (MSA), common across Arabic-speaking countries, and one a colloquial version differing across Arabic-speaking countries and regions (Ferguson 1959). However, Arabic language can also be considered a continuum of forms, from the formal Classical Arabic—the language of the Qur'an and pre-Islamic poetry—to the various semiformal, educated spoken Arabic informal or colloquial versions used in everyday communication. MSA lies at the formal end of the continuum, with some linguists referring to it as a version that dates back to the nineteenth century in which some structures and word-usages from Classical Arabic were dropped and some new technical vocabulary was added in response to the times (Versteegh 1997).

MSA is predominantly used as a written form across Arabic-speaking countries, particularly for literary works, official documentation, mass media, and educational texts. MSA is also used in spoken form in television news and some other television shows including cartoons, radio, and social media. However, local dialects predominate these oral media forms. MSA is not usually acquired at home, but rather it is predominantly acquired through formal education (Al-Huri 2015; Zughoul 1980). To be considered fluent in Arabic, one needs to master both one or more dialects and MSA.

There are many varieties of colloquial Arabic spoken across countries or groups of countries, including Egyptian, Gulf Arabic, Hassaniya, Levantine, Maghrebi, Iraqi, Sudanese, and Yemen, among others. At the extreme colloquial end of the spectrum of Arabic varieties is "e-Arabic" or "Arabish"

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5   Includes first and second language speakers; based on a 15-yearlong study by Ulrich Ammon, University of Düsseldorf, Population Reference Bureau.
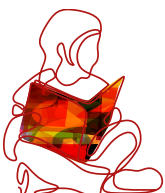
used by young Arabs on social media, which mixes across other languages and symbols (Daoudi 2011). Whereas MSA has not changed much over time, colloquial forms of Arabic have been rapidly adapting, particularly through social media, press, and television, possibly leading to increasing gaps between the two ends of the spectrum (UNESCO 2019).

MSA and colloquial forms of Arabic differ linguistically in several significant ways, and this "linguistic difference" can create additional challenges for children learning Arabic. MSA consists of a more complex grammatical system and richer lexicon (vocabulary) than colloquial forms, among orthographic and sociolinguistic complexities (Abadzi and Martelli 2014; Al-Issa 2020; Abu-Leil, Share, and Ibrahim 2014; Zughoul 1980). The visual and grammatical complexities may suggest additional efforts are needed to become fluent, freeing up mental resources for other processing, such as comprehension (Abadzi 2017). For example, when brain activity was examined among Arabic compared to Spanish speakers, differences in the left and right sides of the brain appeared to relate to the maintaining of different meanings associated with unvowelled text (Al-Hamouri et al. 2005). This suggests that there are aspects of the language itself that have implications for how it is learned and how it should best be taught.

Despite having limited previous exposure to MSA, when children start school they are presented with a set of rigid rules to acquire. They are encouraged to "unlearn" or suppress habits built up from their exposure to and use of colloquial forms; and they have to learn new sounds and vocabulary. This results in a perception among children that they are not free to use and innovate in MSA, unlike children learning other native languages (Maamouri 1998).

In addition, while MSA is intended to be the language of instruction, in practice teachers and university lecturers tend to give instruction in colloquial forms of Arabic. In essence, students are receiving their education orally in one form of the language and reading and writing in another (Abdulaziz 1986).

However, the challenges often described as being due to the "diglossic" nature of Arabic are not insurmountable. In fact, while MSA is not considered a "mother tongue," there is passive exposure to MSA among young children in daily life, which supports the learning of MSA through formal instruction during the school years (Uhlmann 2010). This includes through the various mass media sources, parents and caregivers reading to children (albeit this is less common than in other countries), watching cartoons dubbed in MSA (though these have become less common), and listening to the Qur'an being recited at home (where applicable). When children experience greater exposure to MSA (both oral and aural), especially in the early years, the transition to MSA in school is eased (Abu-Rabia 2000; Feitelson et al. 1993). Therefore, policies that promote early exposure to MSA through, for example, parent education, increased access to MSA media for young children, teacher training, and evidence-based curriculum design would support the transition to MSA and the overall learning of the Arabic language.

In addition, despite clear differences, there is significant overlap between colloquial forms of Arabic and MSA. This includes overlap not only in terms of exact word matches, but also in terms of words that have the same root or similar origin (cognates). The degree of overlap is greater in some countries than in others. In a study of the lexical distance of Arabic dialects, Kwaik et al. (2018), for example, found that Palestinian appears to be the closest dialect to MSA. Another study found that 21 percent of words in the lexicon of five-year-old native speakers of Palestinian Arabic were identical to MSA words (Saiegh-Haddad and Spolsky 2014). Of the remainder of the five-year-olds' lexicon, one-half were cognate words—partially overlapping with MSA—and the other one-half were unique words. This means that around 60 percent of the five-year-olds' lexicon was the same as, or very close to, MSA. While the degree of overlap will be different in other countries, and further research is needed to quantify the degree of overlap in each context and its impact on teaching and learning, the fact that there are many words that are exactly the same and even more that are very similar can be harnessed in the teaching and learning of MSA through appropriately targeted and sequenced curricula. This issue of harnessing the overlap between dialect and MSA in the teaching and learning of MSA is discussed further under the following sections, "Arabic language curricula, standards, and assessment" and "Approaches to the teaching of Arabic language."

In the above section on the science of learning to read, the importance of beginner readers (of all alphabetic languages) learning to decode while also continuing to build oral language comprehension was highlighted. In addition to these principles, the Arabic language has a number of specific aspects that have implications for beginner readers. These include diacritics, syntactical awareness, and morphological (or derivational) awareness, as discussed below.

In Arabic, while letters and i'jam (consonant pointing diacritics) represent the consonants and long vowels of a word, short vowels and consonant length are generally left out. This means that different words can look the same, and the correct meaning of a word in those instances needs to be ascertained through knowledge of the syntax of the sentence or an understanding of the meaning of the sentence. However, tashkil (supplementary diacritics representing the missing vowels and consonant length) are provided in certain situations, including in texts for children, for beginner Arabic learners, and in religious texts to support correct pronunciation. This "vowelized" text is used in the early grades of school to help children correctly read and understand words, while the use of "unvowelized" text is generally expected from around grade 4. At this point, when the vowels are dropped, children need to rely on their knowledge of syntax, vocabulary, and morphology, along with contextual clues, to be able to correctly read the words. Children who have not developed this knowledge to the required degree will struggle with the transition to unvowelized text.

The most appropriate stage in a beginner learner's development to remove diacritics has been a topic of research interest (Abu-Rabia 2000; Oweini and Hazoury 2010; Taha 2016; Taha and Azaizah-Seh 2017). While diacritics help with the accuracy of pronunciation and comprehension, they can also slow a competent reader down, particularly when they are not needed (for example, when the words are unambiguous) (Hussien 2014; Maroun and Hanley 2017). Research is lacking, though, on the ways

that learners' individual needs can be addressed during the period of transitioning from vowelized to unvowelized text. Not every child in a grade 4 or 5 class would be ready for unvowelized text or would be able to cope with it in all contexts (such as in longer or more difficult texts). The move should be skill based and not grade or age based. Providing the option of vowelized text would support the principles of evidence-based effective instructional strategies such as Universal Design for Learning (UDL), Aligning Levels of Instruction with Goals and the Needs of Students (ALIGNS), and Teaching at the Right Level (TaRL).[6] Further research into appropriate curriculum and pedagogical strategies to support all children to transition to unvowelized text would be helpful to provide the evidence needed to move beyond a "one-size-fits-all" response and to raise learning outcomes for all.

The skills of syntactical (sentence structure) awareness help children with decoding and comprehension, particularly in Arabic, given the issues of diglossia and the transition to unvowelized text. This is because understanding the placement of the word in the sentence gives clues as to the meaning of the word. Listening and talking are the main ways for children to learn syntactical awareness, and something children do every day before school age without necessarily having to memorize rules of grammar. Explicit teaching of sentence structure can also be helpful to children learning to read (Abdel Bari 2011). This is described as a "sentence approach" to reading instruction and is considered a holistic and natural approach to learning to decode (Halebah 2013), as opposed to approaches that focus on isolated or decontextualized words. Explicit instruction to increase syntactical knowledge via well-designed language activities would be best considered as an aid to decoding in early reading, not as a reason for teaching complex grammar in the early grades (USAID 2019).

Another skill that is important for children learning MSA to gain is morphological (or derivational) awareness, that is, knowledge of parts of words such as roots, word families, prefixes, and suffixes and their associated patterns. This knowledge helps children make links between their dialect and MSA, especially since Arabic can be considered a derivational language and given the degree of overlap in similar words derived from a common root. When children move to unvowelized words, morphological awareness helps them recover the missing phonological information and invent new words using that root word logic (Saiegh-Haddad and Geva 2008; Shalhoub-Awwad and Leiklin 2016; Mahfoudhi et al. 2010). Other benefits have been reported, including improved spelling and increased fluency and comprehension (Mahfoudhi et al. 2010; Taha and Saiegh-Haddad 2016). As a result, researchers are aligning their views that explicit teaching of morphological awareness is a necessary addition to phonics (decoding) strategies (Abu-Leil , Share, and Ibrahim 2014; Makhoul 2016; Saiegh-Haddad and Schiff 2016; Taha Thomure 2017). This is a finding that is at odds with approaches that have tended to be emphasized in donor-funded reading initiatives and by government education authorities across the MENA region (USAID 2019).

These findings on specific aspects of the Arabic language and their implications for learning to read and reading instruction point to the need for purposeful, explicit, and well-sequenced instruction targeting specific skills (such as phonemic awareness, morphological awareness, and syntax). Additionally,

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6   http://cast.org; Hwa, Kaffenberger, and Silberstein 2020; http://teachingattherightlevel.org.

investments in time and attention to important subskills both before children reach school age and in the early grades of school, such as aural comprehension and oral vocabulary through greater exposure to MSA are also needed.

The period from birth to school

With the above evidence on the importance of vocabulary and oral comprehension prior to learning to read, and the finding that children can transition easier from their mother tongue dialect to MSA if children's literature is read to them early on (Abu-Rabia 2000; Feitelson et al. 1993; Taha-Thomure 2019), it is concerning that there is a lack of a culture of reading to children in the MENA region. Research has shown that early literacy experiences, especially at home, have positive effects on children's language and literacy development, and school readiness in general. For example, home literacy has explained 20 percent of the variance in Arab children's literacy development (Korat et al. 2014).

Parents in the MENA region are less likely to read books to their children when they are young, aside from the Qur'an (where applicable) compared to parents in other countries (figure 6). For example, in countries such as Australia, the Netherlands, New Zealand, and Northern Ireland, around 80 percent of children are often read to by their parents or caregivers. By contrast in MENA countries, it is only around 20–25 percent. These estimates come from questions given to the parents of fourth-grade students in countries participating in the PIRLS 2016 assessment about the extent to which they read to their children before they began primary school.

Figure 6. **Frequency of Parents Reading Books to Children before They Begin Primary School**
Percent of fourth-grade students whose parents report reading to them often, sometimes, or never
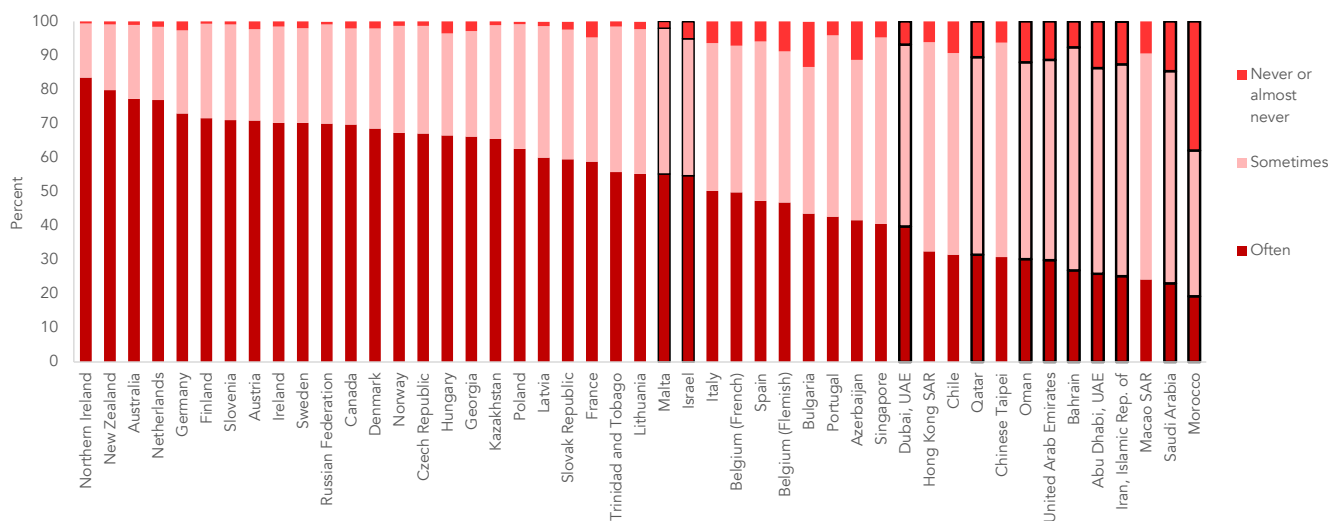
Source: IEA PIRLS 2016.

Another indication of a lack of reading to children in the MENA region is the low ownership levels of children's literature in homes (figure 7). For example, in Morocco and Saudi Arabia, more than 60 percent of fourth-grade students had fewer than 10 children's books in their homes. This is far above the PIRLS 2016 participating country average of 19 percent of children having fewer than 10 children's books in their home.

One reason for the low levels of reading to children and low ownership of children's books in the homes might be that, in the context of learning poverty across the region, many parents might not be literate in MSA and may not be able to support a language-rich, and particularly an MSA-rich environment. Another reason might be that many parents in the MENA region are not aware of the benefits of reading to their children as they were probably never read to as children themselves, making the habit culturally unfamiliar and in need of being brought to parents' attention through sustained national campaigns. This idea is supported by a study among Kuwaiti mothers, which found that those with higher levels of education were more likely to regularly engage in home-based literacy practices with their children (Alshatti, Al-Sulaihim, and Abdalla 2019).[7] Available evidence suggests that home-based literacy activities such as bedtime routines with story time are not common practice in the region (see, for example, Alshatti, Al-Sulaihim, and Abdalla 2019). Another reason is a pervasive and persistent belief among educators, teachers, and parents that MSA before preschool is not necessary (Abu-Rabia 2000) and that it is too hard for children to understand, making exposure to MSA inaccessible. This leads to fewer opportunities for children to hear MSA and increase their vocabularies before starting formal education.

Figure 7. Number of Children's Books in the Home
Percent of fourth-grade students whose parents report the number of children's books in the home
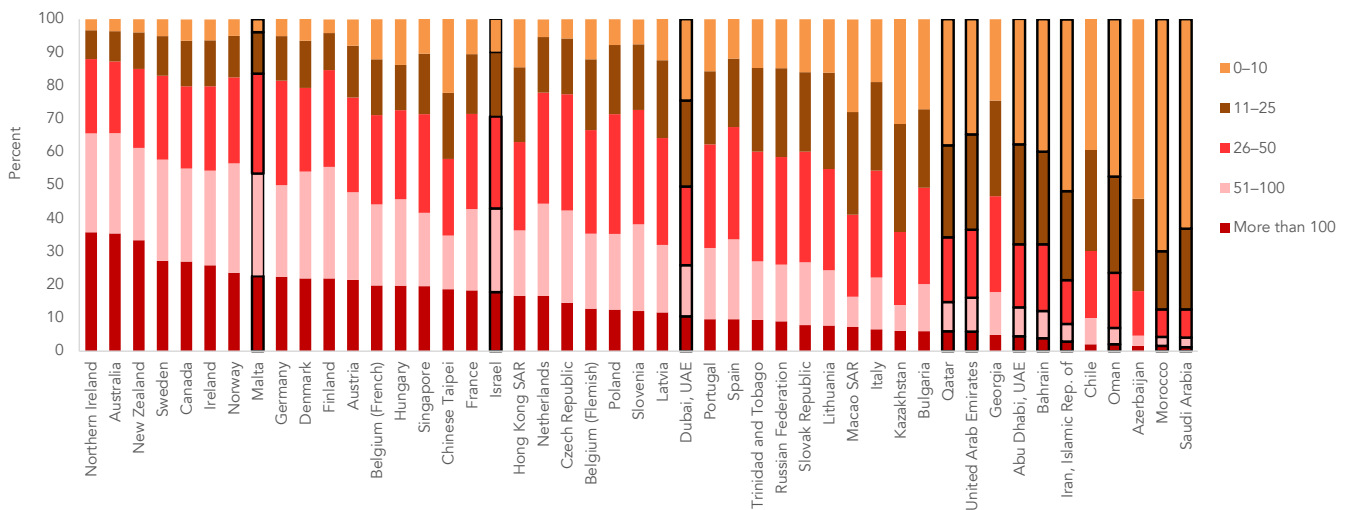
Source: IEA PIRLS 2016.

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7   In the wealthier GCC countries, an issue of foreign nannies raising children leads to even less exposure to MSA and also to any Arabic dialect.

Even without considering of exposure to books or reading to children, oral language development (in dialect) is a concern for many children across MENA. There are some cases in which parents infrequently talk with their young children, stifling the development of oral language. For example, in Morocco, 21 percent of parents never or almost never talked with their preschool-aged child about things they had done (compared to the international average of 4 percent); 35 percent never or almost never talked with their preschool children about what they had read (compared to 12 percent internationally); and 51 percent never or almost never played word games with them (compared to 16 percent internationally).[8]

There is also a lack of provision of, and participation in, preschool education, which can and should be a setting in which preliteracy skills are nurtured and the opportunity to increase exposure to MSA is capitalized upon. Children who were exposed to MSA dialogue in preschool were found to have greater comprehension of literary Arabic stories in grades 1 and 2 than those who were only exposed to dialect (Abu-Rabia 2000). The MENA region has the lowest average gross enrollment ratios (GERs) in early childhood education (settings aimed at zero to two-year olds) and preprimary education (settings aimed at three-year olds until school age), very closely followed by Sub-Saharan Africa (figure 8). On average in the MENA countries, 25 percent of zero to two-year olds (GER) are in formal education and care settings, compared to 49 percent in the Latin America and Caribbean (LAC) region and over 60 percent in the South Asia region (SAR), Europe and Central Asia (ECA), and East Asia and Pacific (EAP). Likewise, the average MENA preprimary GER is 32 percent, compared to 62 percent in SAR and over 75 percent in LAC, ECA, and EAP.

Television shows for young children have changed over the years, leading to less MSA cartoons, for example, and which tend to be provided more frequently in English or Arabic dialects. Decisions on this have sometimes been made to engage children more, with the view that they will be more likely to understand the cartoon if it is in a dialect they understand. With the need for more online learning and entertainment materials for young children due to the social distancing requirements of the COVID-19 pandemic, there is an opportunity now to develop and share new content in MSA.

Within early years' education settings, including kindergarten, there is a need to ensure that teachers and caregivers are familiar with the relevant evidence-based literacy strategies. For example, a study of early childhood educators in GCC countries found that experienced teachers were more likely to use evidence-based literacy strategies, as were those with higher qualifications and early childhood-related qualifications (Al-Qaryouti et al. 2016).

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8 Data are from IEA PIRLS 2016 database.

Figure 8. **Gross Enrollment Ratios in Early Childhood Education and Preprimary Education, 2019**

Total enrollment in early childhood education (ECE) and preprimary education, regardless of age, expressed as a percent of the total population of official ECE and preprimary education age
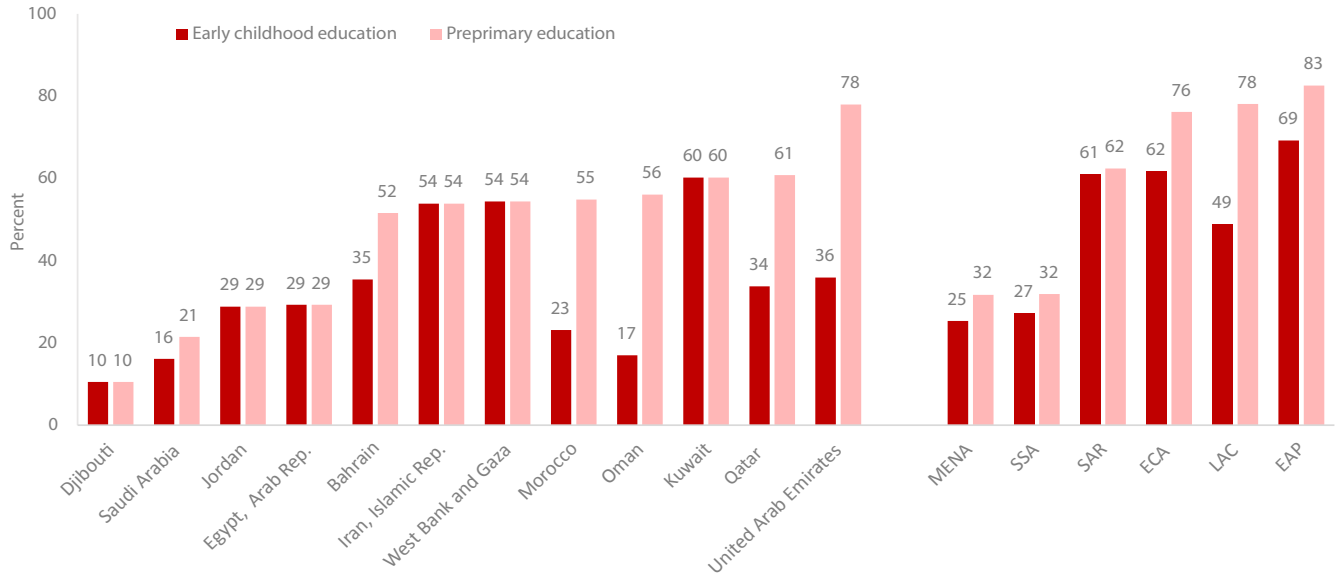
Source: UNESCO Institute for Statistics downloaded from the World Bank's EdStats database.
Note: GERs can exceed 100 percent due to the inclusion of overaged and underaged students because of early or late entrance and repetition. Data are for most recent year available (mostly 2019). Early childhood education refers to programs for children in the age range of zero to two years, while preprimary education is designed for children from age three years to the start of primary education.

In some MENA countries, there are growing provision and interest in foreign-language preschool education, possibly due to a lack of, or delay in, government preschool provision. This may have an impact on those children's experiences of learning MSA once they reach school age. In addition, practices common in early childhood curricula from western countries have started to be introduced in MENA countries, and their effectiveness in a different linguistic and cultural context has not yet been well studied (Al-Othman et al. 2015), pointing to the need for a research agenda in this area.

Arabic language curricula, standards, and assessment

Across all subjects, the curriculum in MENA countries is generally considered to be the same as the textbook approved and mandated by ministries of education (Taha-Thomure and Speaker 2018). This differs with many other countries and regions in which the curriculum is considered to be a description of a set of student experiences that could be gained in a number of different ways (of which the textbook is one). More recently, a movement toward curriculum standards has taken place (starting in the United States in the 1980s), which is now starting to gain momentum in countries of the MENA region. By describing curriculum standards and using standards-based instruction, teachers are theoretically able to draw on any number of relevant resources to help their students reach the

expected standards. The idea is to be transparent and consistent in defining expected student learning or performance outcomes, allowing teachers to judge and communicate their students' progress to learners, parents, and others. The focus shifts from the delivery of content to progress and mastery; and from whole class to individual student learning.

How curriculum standards are, or will be embedded in MENA's education systems, which have traditionally viewed the textbook as the curriculum, remains to be seen. Standards for Arabic language education have been developed in several MENA countries; in some cases they have been used in a smaller subset of schools such as private schools, and in other cases how they are being used or plan to be used is not yet clear (box 2). Information on the experiences of teachers in using Arabic language curriculum standards in their teaching is not yet available. However, Taha-Thomure and Speaker (2018) found that teachers applying Arabic language arts standards in a small number of private schools had positive experiences in terms of their effect on teaching and collaborating, albeit with some challenges related to finding resources and lesson preparation time.

Box 2. **Standards for Arabic Language Education**

Several countries in the MENA region have adopted a standards-based philosophy in the past two decades including Qatar, the United Arab Emirates, Saudi Arabia, Egypt, and Jordan.

In Qatar and the United Arab Emirates, these content standards have been integrated into curricula and performance indicators by which students are assessed. Moreover, content standards for all other school subjects have been developed and integrated. In the United Arab Emirates, the mathematics and language components of the curriculum have mirrored the United States Common Core standards.

In other countries, work is still underway on embedding the new standards into the various aspects of the education system, including in the training of teachers and in the development of curricula and teaching and learning materials.

In many of these countries, teachers and educational leaders in schools are still in need of training in standards-based philosophy and classroom applications.

Source: Taha-Thomure and Speaker 2018.

With significant disruption caused by the COVID-19 pandemic and the move toward distance education for over a year for many MENA countries, new online teaching and learning resources have been developed and integrated into virtual classrooms or asynchronous learning. While learning losses during this period are inevitable, the interruption to teachers' "business as usual" may provide an opportunity to move away from reliance on the textbook as the curriculum and to the use of curriculum standards to cater to the progress of individual students and groups of students through a wide array of core and enrichment teaching and learning materials. The experiences of countries such as Saudi Arabia (with the "Madrasati" learning platform) and the United Arab Emirates (with the "Madrasa" platform) show that technology can be helpful in amassing and organizing useful materials that teachers can draw on to prepare suitable learning experiences for their students.

The Arabic language curriculum should take account of the general evidence-based principles for language learning, and the specific considerations for Arabic language learning outlined above, with consistent application and coherent sequencing. Currently, the curriculum (predominantly the textbook) promotes learning and reinforcing of grammar and spelling rules in abstract and rote ways (Taha 2017).

Revisions to curricula that would align with the findings above include:

1. Clearly sequence the development of subskills for each stage of learner development, with appropriate relevant emphasis and explicit teaching. This includes listening comprehension, phonemic awareness, vocabulary, fluency, expressive language, and comprehension.
2. Link to children's existing knowledge and skills, including by gradually bridging from dialect to MSA through sequencing of word introduction, and harnessing the overlap between dialect and MSA in exact words and similar words. This means starting with easy MSA words that are the same in the dialect, and then moving to MSA words that have similar roots to words in the dialect in an organized and purposeful sequence.
3. Include significant time and student experiences that provide oral and aural exposure to MSA.
4. Explicitly teach phonics/decoding (sounding out words), morphological awareness, and syntactical awareness.
5. Provide a longer period of transition from vowelized to unvowelized texts, with opportunities for learners to decide.

One area requiring further research is on the use of "sight words." There is some evidence that carefully selected sight words could help children with morphological awareness, and that this might be an efficient and effective strategy for early Arabic readers (despite being deemed not as useful for other language learners) (Oweini and Hazoury 2010). Such sight words are ideally used to form the first readers, and are often also the common first spoken words, giving a symmetry to oral and reading development. Various lists of sight words have been devised, dependent on the country context; for example, the Hanada Taha Sight Words, which are freely available.[9] Other lists have been developed in the past in Egypt, Morocco, and the United Arab Emirates. However, given that written MSA is less country specific than spoken language, the sharing of sight word lists, combined with further guidance and research on their best use, would be beneficial.

Assessments of the subskills related to children's reading development allow policy makers and planners to determine needs related to teacher professional development, and teaching and learning materials, and allow reporting of individual progress (and average progress across groups) in relation to expected curriculum standards. Many MENA countries participate in PIRLS and this provides them with a rich source of robust data. Predominantly, PIRLS (and Trends in International Mathematics and Science Study [TIMSS]) text has been unvowelized, which fourth graders may have been finding difficult (Asadi, Khateb, and Shany 2017). It would be worthwhile for countries to carefully consider in advance of these international assessments of fourth grade whether the texts should be vowelized or unvowelized or whether an option should be given to students.

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9   https://hanadataha.com/groundbreaking/sight-words/.

Diagnostic assessments in earlier grades can help guide teachers in their planning of lessons and support to individual students and groups of students. They can also support selection of students for remedial support. Several MENA countries have used Early Grade Reading Assessment (EGRA) (box 3). Whether a nationally developed reading assessment, an existing or adapted EGRA, or a commercially available assessment tool is used, linking to curriculum standards supports interpretation of the results.

Box 3. **Assessing Early Grade Arabic Reading**

Fundamental to enhancing learning is the appropriate assessment of student progress and achievement from the start of formal schooling all the way to graduation. While education systems across the world have come to appreciate this notion, the reality is that, in many countries, basic information on what students know and do not know is not readily available to those who can respond to it in a way that will benefit student learning (World Bank 2018). For example, failure to adequately assess student progress may result in teachers moving on through the curriculum before students have mastered the prerequisite skills; parents may have limited or inaccurate information on their children's achievements, thereby not knowing when additional support for their child is needed; and ministries of education may be unaware of overall achievement levels in relation to expected standards, or whether these are improving or declining, or whether certain groups of students require additional attention and support. This is particularly important for reading given that it is a gateway to further learning and opportunities for children.

A variety of assessment strategies are needed to ensure that key stakeholders understand and can take action on children's mastery of MSA, as follows.

Informal classroom assessment

Teachers need to know the degree to which their students are attaining the subskills that make up reading in line with the curriculum standards. Classroom assessment methods including good questioning, quizzes, informal tests, and homework can help teachers ascertain this and validate their observations and impressions. Effective questioning strategies can engage students and gain their interest, help them link previous work, and foster higher-order thinking skills. These types of questions often start with words such as "why", "how", or "explain." Teachers with good questioning skills often use incorrect answers as teaching opportunities, avoid "yes"/"no" responses, pause to allow reflection, ask follow-on questions to illustrate interest and delve deeper, and carefully consider students' answers to make decisions on the pace of the lesson and subsequent material.

Diagnostic assessments and screening checks

To check for attainment of key reading skills, in-depth diagnostic assessments or brief screening checks can alert teachers and parents to aspects of reading and writing that children may be struggling with. The results of such assessments can be collated to provide information at school, regional, and national levels. The EGRAs are an example of a diagnostic assessment, and have been adapted in several countries across the region and the world and most often used to determine the effectiveness of early grade reading interventions. They provide detailed information by reading subskill, but can also be summarized into a "reading profile." [10] EGRAs have been conducted on a pilot basis or nationally in Egypt, Jordan, Lebanon, Morocco, West Bank and Gaza, and Yemen, with a tablet-based EGRA recently implemented in Tunisia.

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10   See, for example, USAID Indonesia 2014.

A simple screening check can be an alternative to the in-depth EGRA, implemented informally in regular classes, and giving "just-in-time" information to teachers and parents on children's progress toward becoming readers. These can be aggregated to inform those responsible for curriculum, teacher training, education policies, and so forth. In a short time, these could check, for example, whether children are making sufficient progress in phonics skills, such as being able to associate sounds with letters and sound out simple words. [11] The results can be used to identify children needing additional support so that they can receive that at an early stage before they fall behind in this crucial skill.

Diagnostic assessments and screening checks should be closely aligned with developmentally-appropriate curriculum standards and learning materials, and implemented periodically by teachers to understand learners' needs. If standardized across the country, the results can be collated and aggregated to provide useful information for education decision-makers including those responsible for teacher training and curriculum development.

National and international student assessments

Some countries have developed and implemented sample-based, large-scale assessments of Arabic at the primary-school level to gauge national and sometimes subnational levels of reading achievement. In the MENA region, these tend to have been intermittent and unpublished. Census-based national assessments of reading, such as the National Assessment of Educational Progress (NAEP) in the United States or the National Assessment Program—Literacy and Numeracy (NAPLAN) in Australia, are not yet found in the region. However, an increasing number of MENA countries are participating in international student assessments in reading such as PIRLS and PISA.

Approaches to the teaching of Arabic language

Beyond curriculum, standards, and assessment, teachers make daily choices in how they will engage students, present materials to them, and follow up to check progress and understanding. In MENA countries, children tend to be taught to read and write with a focus on grammar and accuracy and a lack of playfulness and inquiry (Taha-Thomure 2019). Teachers tend to correct children as they learn to read and write, and making up words or spellings is considered inappropriate (Taha-Thomure 2008). The result is a lack of exploration and fun with the language, which affects student motivation in the subject. This differs from children's experience in high-performing education systems where engagement with stories is emphasized, playing with language is encouraged, and grammar and accuracy are taught but not so rigidly that it inhibits young children's engagement.

Phonics-based methods ("sounding out" words) are rarely used in MENA countries (Taha-Thomure 2019), despite research from neuroscience and education consistently showing their importance (Abadzi and Martelli 2014; Castles, Rastle, and Nation 2018). The idea of breaking words down to teach sound–symbol correspondences and checking for understanding through the use of nonwords is either not known or considered inappropriate. While phonics-based instruction has been introduced to some degree in almost all MENA countries, the history of whole-word approaches to teaching have not subsided, with misconceptions and ineffective practices remaining, suggesting a need to for greater attention to scale up teacher education, mentoring, and support materials. For example, in Israeli Arab schools, a new phonics-based reading curriculum became mandatory in all schools in 2009; however, this does not yet appear to have changed preconceived ideas on the best way

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11   See for example the Year 1 phonics screening check in the United Kingdom: https://www.gov.uk/education/phonics.

to teach reading (Saiegh-Haddad and Schiff 2016). Overall, based on the evidence outlined in the above sections, teachers should explicitly teach phonics, along with morphological awareness and syntactical awareness.

With these language patterns—phonemic, morphological, and syntactical awareness—being explicitly taught, great care would be needed to ensure that they are taught in a way that engages children's interests and prior knowledge and not in rigid ways that make children afraid of making mistakes. In addition, teachers should use opportunities to link children's learning with their background knowledge by highlighting words that overlap between MSA and their dialect, and by looking for patterns in parts of words, thus differentiating from teaching in the local dialect.

In terms of order of introducing letters, there does not yet appear to be consensus on the most appropriate order, which would usually be based on the frequency of use in words typically used in early grade teaching and learning materials. For example, the order of letters presented in a new "Iqra curriculum" differs to that presented in the Pearson "BilArabi" series, while researchers in Morocco recommend a progression that follows the ease of writing the letters and visual recognition. Further research in this would be warranted.

Teaching methods have tended to be teacher centered and bound to the textbook, without attention to the alignment of instruction to curriculum and assessment (Taha-Thomure 2008). Given the reliance on textbooks, scripted lessons and other teacher guides and materials that scaffold teaching, as part of a well-designed curriculum and package of materials for Arabic language education in the early grades, may be helpful ways to help move teachers to more effective methodologies. However, it would also be important to develop the teaching profession, including through building teaching skills, for example in lesson planning.

Where teachers purposely use MSA in the classroom and take opportunities to expose children as much as possible to MSA, good results have been achieved (Feitelson et al. 1993). Currently, teachers are tending to use dialects to explain language features (Taha 2017; Taha-Thomure 2008). This shows a lack of confidence with MSA among Arabic language teachers to plan for supporting children's move from dialect to MSA. Conversely, some researchers have highlighted international evidence pointing to easier and more efficient reading for children in their mother tongue and suggested that Arabic-speaking children should learn to read in their dialect (Saiegh-Haddad and Schiff 2016). However, significant attitudinal changes would be needed for this. Also, if the aim of having all children reading fluently with comprehension in MSA in primary school remains, the building up of MSA vocabulary needs to start early, though as discussed earlier, bridging between dialect and MSA with carefully planned sequencing of word introduction and use would be helpful.

A language-rich classroom environment includes a purposeful dialogue between teachers and students, and among students. However, there is little research into classroom dialogue and interactions between teachers and students in MENA. One study comparing kindergarten classrooms

in the United Arab Emirates and Finland found that there were fewer episodes of educational dialogue in the United Arab Emirates than in Finland (Muhonen et al. 2020). The researchers suggested that this difference may be due to a lack of teacher training on the benefits of dialogue, including child-initiated dialogue, as an effective teaching method.

Arabic language teachers

A recent analysis of the latest evidence on how to attract the best candidates into the teacher profession and then how to prepare them, select them, support them, and motivate them concluded with a set of good practice across contexts summarized in box 4. The study found that the most effective interventions to improve student learning rely on teachers, and that a successful teacher can make a major difference to a student's learning trajectory. During the period of COVID-19-related distance education, the importance of the role of teachers has come to the forefront (Saavedra 2021; UNESCO 2020). However, teachers do not always have the skills and support they need to be fully effective, and the principles for good practice outlined in box 4 are not always implemented by countries across the world. Several of these principles are particularly relevant for Arabic language teachers across the MENA region, especially those related to preparing teachers for school and supporting teachers in school.

Box 4. **Successful Teachers, Successful Students:**

Recruiting and Supporting Society's Most Crucial Profession

Principles for Good Practice across Contexts

Objective	Principles for good practice	Additional considerations for low-income countries and countries affected by conflict
Make teaching attractive	○ Improve occupational prestige by using communication strategies ○ Peg salaries to competing professions ○ Use career progression structures effectively	○ Ensure salaries reach teachers on time ○ Provide job security to reliable, effective teachers
Improve personnel policies	○ Incorporate tests of subject knowledge and pedagogical ability into the hiring process ○ Use probationary periods to identify and retain the most effective teachers ○ Recognize, promote, and reward effective teachers ○ Use a fair and transparent process to allocate teachers where they are needed most ○ Adopt a meritocratic hiring system for teachers and school leaders	○ Where data systems do not allow for extensive testing, still include meritocratic elements in the hiring process ○ Recognize good teachers even when test-based value added is not possible ○ In refugee settings, allow teachers who have migrated to update their credentials and teach

Prepare teachers for school	○ Ensure that teachers have content mastery ○ Provide teachers with practical pedagogical skills ○ Train teachers to manage classrooms effectively, including classrooms with students at varied learning levels	○ Ensure that teachers at least have knowledge of the content they are supposed to teach ○ Focus teacher preparation on practical skills
Support teachers in school	○ Introduce high-quality teacher professional development—tailored to teachers' needs—that includes practice among teachers and a subject-specific, practical focus ○ Provide teachers with structured lesson guides ○ Introduce regular teacher coaching, potentially leveraging technology and strong school leadership to do so	○ Provide intensive teacher professional development in stages rather than light touch, likely ineffective professional development to the full teaching force at one time ○ Highly structured lesson guides can be particularly valuable in environments where teachers have limited educational backgrounds themselves

Source: World Bank 2019c, p. 38.

In many cases, Arabic language teachers, and those looking to enter the profession, do not have sufficient mastery of the language itself. This is not surprising given that teachers are themselves the product of ineffective Arabic language education. In addition, teachers of other subjects likely lack the training and confidence with using MSA as a medium of instruction and might not see it as part of their role to use MSA. In this case, teacher preparation programs may need to address the problem of remedial needs of teachers so that their graduates feel confident enough in the language to use it in the classroom. In addition, teacher preparation programs need to engrain in teacher candidates that every teacher is a teacher of reading, whereby the language needs of each subject are identified and teachers are trained to recognize and support children's reading development in their subject.[12]

In general, policies are changing across the MENA region with more countries mandating bachelor-level or higher degrees, although these changes will take time to work their way through the systems. For example, in Morocco, only 42 percent of grade 4 teachers have a bachelor's degree or higher (World Bank 2019b).

There are very few teacher training colleges or education faculties of universities that specialize in Arabic language pedagogical studies or that include a unit on teaching and learning Arabic language across the MENA region (Taha 2017). This helps to explain the lack of research in many aspects of teaching and learning Arabic. However, it may also explain why teachers appear to generally be unprepared to effectively teach Arabic reading and writing, as the results of assessments of student learning tend to show. University Arabic language teacher preparation programs should include specific studies on language development and methods for teaching Arabic from the early years to the more advanced levels, such as courses on phonics, early literacy, and children's literature. This

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12 See, for example, the First Steps and Stepping Out programs from Western Australia's Department of Education: http://det.wa.edu.au/stepsresources/detcms/portal/.

is an area where collaboration across university faculties of education and teacher training colleges across the MENA region could help to build expertise and share resources and research.

For practicing teachers, in-service professional development courses have generally not yet focused on building teachers' understanding of the evidence-based practices related to teaching and learning any language, and the effective practices specific to the Arabic language (Taha 2017). Therefore, there is an urgent need to develop and improve in-service teacher training, as well as the guidance materials and sample lessons to accompany the training. Effective models include coaching, mentoring, sharing practice, and establishing communities of practice, all of which provide a sustainable strategy for teacher professional development.

Developing a cadre of well-prepared Arabic language teachers who are able to move from rigid, ineffective approaches to the teaching of Arabic grammar and to more effective strategies that foster higher-order thinking skills, will have a knock-on effect in other subjects, moving beyond memorization and rote learning to problem solving and more advanced thinking and reasoning.

Arabic language texts and children's literature

In the early years, exposure to MSA is important to build children's vocabularies. However, as noted in the section on "The period from birth to school," there are few children's books in homes across MENA countries, and parents rarely read to children. This indicates a need for greater awareness among parents, targeted campaigns, provision of books, and the development of a culture of reading to children, possibly through the use of libraries (where other services can be connected).

Once children reach preschool and school age, teachers can take on a greater role to encourage children's (and their parents') interaction with books. For example, teachers can regularly read aloud to children from engaging books, starting a routine that can extend into homes. The Arabic Reading Challenge (where millions of books were read by children) is an example of a way to encourage children to read. However, school libraries tend not to be well stocked in MENA countries. For example, PIRLS 2016 found that, on average across all participating countries, 73 percent of fourth-grade students were in a school with a library containing 500 or more books. In MENA countries, this was much lower. Only 9 percent of children in Morocco and 18 percent of children in Saudi Arabia were in a school with a well-stocked library.

In terms of early readers (books developed and organized for beginner readers) and texts for use with beginner readers, there tends to be resistance across MENA countries to make use of the language that children are familiar with when they enter school, even when these are shown to be simple MSA words (Taha-Thomure 2008). However, it is possible to develop early readers that use words that are identical between MSA and dialect and that are already familiar to children, while using sentence structures that are closest to those used by young children. Some publishers are starting to do this. To do this, curriculum designers, authors, and publishers need to identify (or use already identified)

common words across MSA and dialect and understand the types of language young children are familiar with when they enter school. This requires organization and oversight, with ministries of education creating the demand for these types of teaching and learning resources.

Some of the visual features of the Arabic language can make reading more difficult if attention has not been given to make font types, sizes, and spacings appropriate for beginner readers (Abadzi and Martelli 2014). This may be an issue in cases in which publishers and ministries of education have aimed to reduce costs at the expense of educational need.

As children develop into readers, it is important that they find "reading for pleasure" material that is engaging to them and that motivates them to read more, such as a book series, comics, and magazines. Not only does this reinforce and improve their reading skills, building up their higher-order reading skills such as fluency and comprehension, but reading for pleasure has other benefits. In fact, reading for pleasure has been found to be the most important indicator of a child's future success, more so than their family circumstances or parents' educational background or incomes (OECD 2002). Teachers can foster this relationship of children's love of books in class, with spillover effects to their home lives. Students' relationships with their teacher has been shown to have a positive correlation with engagement in reading (OECD 2002). When children interact with teachers, parents, or other children over books, their social and oral skills develop, leading to increased social interaction and oral language development (Clark and Rumbold 2006). In addition, reading for pleasure has health benefits, including reduced stress, slowing heart rates, and tension; this happens when reading silently for as little as six minutes (Lewis 2009).

However, in MENA countries on average, children are rarely asked to read longer fiction books with chapters in class, unlike the average in most other countries (figure 9). For example, on average across PIRLS 2016 participating countries, 18 percent of fourth-grade students are never or almost never asked to read fiction books with chapters during class. However, in all Arabic-speaking MENA countries this rate was above the international average, including 64 percent of Moroccan students and 55 percent of Saudi Arabian students never, or almost never, being asked to read fiction books with chapters during class.[13]

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13 The PIRLS results include public and private schools.

Figure 9. **Students Never (or almost never) Asked to Read Fiction Books with Chapters during Class, 2016**
Includes in print or digital form
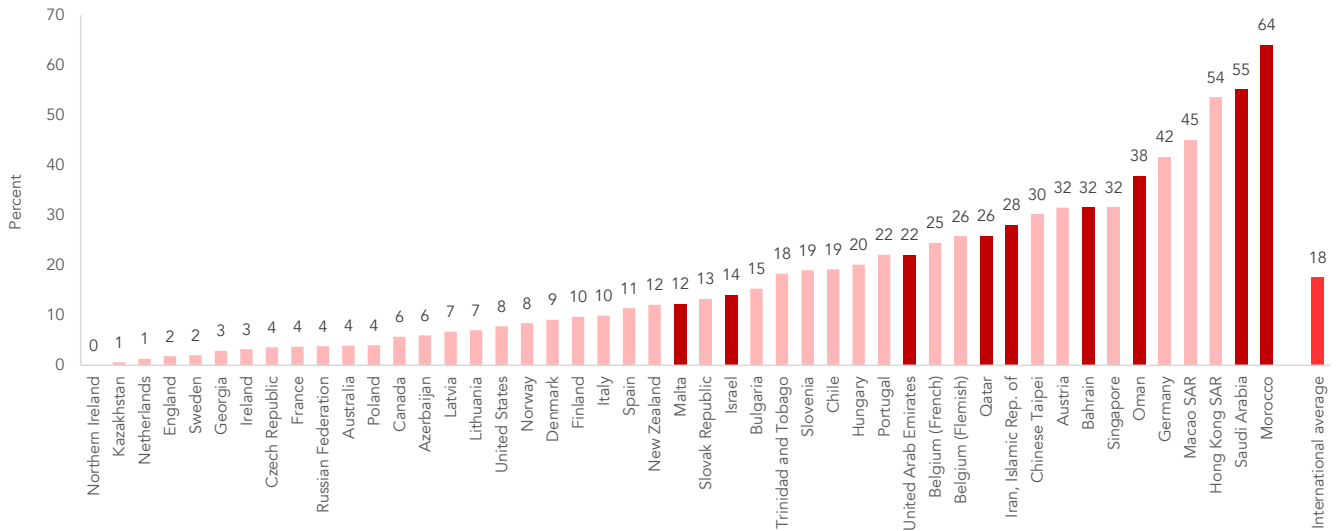
Source: IEA PIRLS 2016 (teacher questionnaire).

Children's literature has been increasing in volume in recent years, and there are many young children's authors in the Arab world. However, the content of children's literature tends to remain didactic and less engaging than it could be (Taha Thomure, Kreidieh, and Baroudi 2020). Working with children's authors and publishers to encourage practices that could lead to greater educational value for children learning to read would be helpful. This could include encouraging the use of certain vocabulary (for various ages) and the use of patterns and rhymes, for example. Teachers have an important role to play in helping students find reading material that will interest them. A text leveling system can be useful in identifying reading material appropriate to each student's level (Harb 2019).

Time allocated to Arabic language instruction

Sufficient time is needed for Arabic language instruction, including reading. To be able to read, children need to practice reading and its associated subskills. Daily time devoted to reading and associated literacy activities is the norm in high-performing education systems. For Arabic language, this may be even more important given the visual and grammatical complexity (Abadzi 2017). Time is needed for enriching children's vocabulary in MSA, facilitating MSA oral comprehension, and actively engaging children in activities to acquaint them with letters and sounds.

Comparable official data on the time countries devote to language and, within that, reading, writing, and listening, are not available. However, the PIRLS assessment includes questions to school principals that can be averaged across schools to give an indication of the number of hours of language instruction that children in the fourth grade receive (figure 10). This shows that there is

quite a lot of variety across MENA countries, but all except two countries are below the international average of PIRLS participating countries (those two are Qatar and Egypt). In Saudi Arabia and Kuwait, for example, the time devoted to Arabic language instruction in the fourth grade is less than one-half of the time in the countries with the highest time (the Netherlands and Trinidad and Tobago), and just under three-fourths of the average time of all PIRLS 2016 participating countries.

Figure 10. **Number of Hours of Fourth-Grade Language Instruction per Year, 2016**

Includes reading, writing, speaking, literature, and other language skills
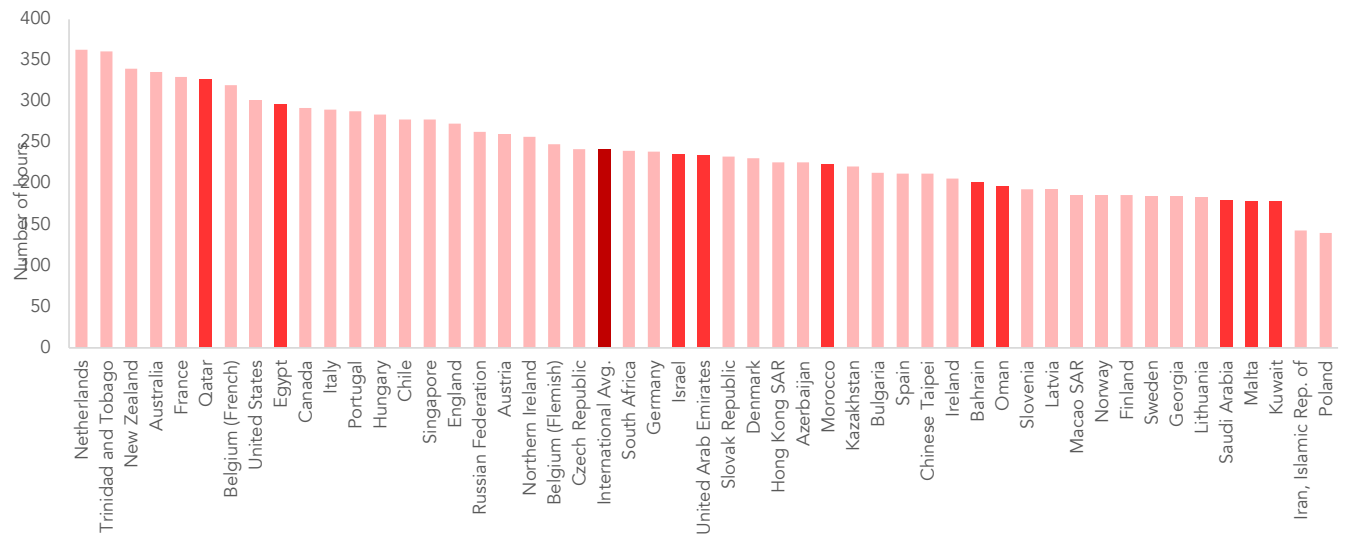
Source: IEA PIRLS 2016, based on questions to school principals.

With overcrowded curricula, there are difficult decisions for governments and private education providers to make about the relative weight for each subject. However, since reading is a fundamental skill that is crucial for further learning, it needs to be a focus in the early grades of schooling. During the COVID-19 pandemic-associated distance education, countries have had to prioritize learning content, and several have done so with basic literacy and numeracy skills, recognizing their importance. In MENA countries, though, curricula tend to be compartmentalized by subject area with little overlap, and this means that successful initiatives from other countries that take advantage of all subjects to teach and reinforce literacy skills would be more difficult to implement. Each subject has its own reading and writing demands, too, meaning that teachers of all subjects need to have some knowledge and understanding of literacy development.[14] Subjects other than Arabic language studies can be harnessed to promote MSA and reading in general. This would involve teachers of those subjects being trained to increase the use of dialogue in their classes, to read aloud for exposure to MSA, and so on.

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14   See, for example, Christie and Derewianka 2008; Humphrey 2017; and Western Australia's "First Steps Literacy" materials: http://det.wa.edu.au/stepsresources/detcms/navigation/first-steps-literacy/.

A revolving door of new subjects and competencies added to the curriculum also puts pressure on the time for foundational skill building. For example, the early introduction of foreign languages, particularly English, has become common, and in some cases (particularly private schools) there is dual Arabic-English instruction. There are some indications that, at least in some situations, this may not help children develop adequate proficiency in either language (Shamim 2018), which may be due to a lack of sufficient instructional time.

On the use of time within Arabic language studies, in many school systems of the region, weekly class time is divided into dedicated sessions for spelling, grammar, and reading, which is likely to lead to fragmentation of language learning, with a heavy emphasis on language structure and grammar, as opposed to building and practicing language more holistically.

Perceptions and other factors related to Arabic language learning

Certain perceptions of Arabic language learning, and other factors, have an impact on learning outcomes. Many of these perceptions are beyond the scope of Arabic language teaching and learning, but they are issues warranting further consideration. For example, some believe that predominantly oral cultures, by which they include Arabic-speaking countries, may experience more difficulty in encouraging a reading culture (Freimuth 2014). Others see young people less willing to engage in Arabic and more likely to want to read in foreign languages, for example, given the prevalence of digital content in other languages (UNESCO 2019). Furthermore, they see the gap between MSA (which they view as being a static language) and colloquial forms increasing due in part to social media and entertainment (UNESCO 2019). These are just a few examples on top of the ones described below. Taken together, these point to the need for holistic and comprehensive national strategies to foster the use of Arabic, raise its importance across society, and improve its teaching and learning.

One most important perception is that Arabic tends to be the least liked subject of students (AlZeny 2016). This may be due to the way in which it has been taught in the past, emphasizing rigid adherence to grammar rules and accuracy over hearing and reading MSA stories and enjoying fun activities in the process of learning grammatical Arabic language features. In addition to disliking Arabic language studies, students feel insecure about their abilities and therefore do not enjoy reading and writing (Maamouri 1998; Taha-Thomure 2019). Relatedly, the recent "Arabic Language Status and Future Report" found that students have favorable attitudes toward Arabic but unfavorable views on how it is taught (United Arab Emirates Ministry of Culture and Youth 2020). In the United Arab Emirates, 70 percent of teachers and students believed that Arabic language teaching is all about grammar, while 67 percent of students said they have difficulty with grammar (United Arab Emirates Prime Minister's Executive Office 2014).

There are other pressures, including social and economic, in MENA countries to learn foreign languages. This does not preclude learning Arabic well, but it may place additional time restrictions on Arabic learning. Parents are evidently incentivized to introduce foreign languages to their children

at an early age to help them be competitive in labor markets that favor foreign language skills or due to social perceptions about the value of certain foreign languages. In some cases, this includes enrolling their children in schools using partial or full foreign language instruction. This is an issue that affects not only those able to afford high-end international private schools but also those looking at low-cost private schools as well as government language schools (with fees), as is the case in Egypt, for example, and preschools. Another driver for parents choosing these schools is the (at least perceived) higher quality of instruction in these foreign language schools. In some cases, governments have made decisions to introduce foreign languages earlier in the curriculum with more exposure to that language, possibly competing with time for Arabic language instruction.

Finally, there are indications that there may be a lack of awareness across governments and the public of the severity of the problem of low learning outcomes in the Arabic language in MENA countries. For example, when asked about their own levels of fluency in MSA and the degree to which they love reading, 15-year olds have given higher ratings on average in MENA countries than in other countries.[15] In some MENA countries, grade inflation is known to be a problem, whereby teachers and national examination graders allocate high scores to students and, with no moderation mechanisms across schools or reporting against standards, parents accept the results without any other information. Governments without well-functioning national assessment systems to track student performance or monitor Arabic language learning standards or a national literacy strategy are also left in the dark. Taken together, these factors may contribute to the disconnect between beliefs about the effectiveness of Arabic language teaching and learning and the actual outcomes, as shown by international assessments of student learning such as EGRAs, PIRLS, and the Programme for International Student Assessment (PISA).

Supporting struggling readers

In any language, students who struggle in the beginning stages of learning to read need early intervention so they do not fall too far behind and are able to keep up with the curriculum. This requires being able to identify children with additional needs in language learning and reading and support them in early interventions. Teachers are able to identify children requiring more support in their day-to-day interactions on reading activities with children and through diagnostic testing. There is a wealth of information on both remedial support to reading and on effective strategies to use in classrooms to support a wide range of reading abilities. In a review of effective strategies, the UK's Education Endowment Foundation concluded with the four overarching recommendations outlined in box 5.

In MENA (more than any other region), struggling readers are predominantly, but not exclusively, boys, as shown by the gender differences in learning poverty rates. Relatively little attention has been given to boys' underperformance in MENA countries (Jha and Pouezeyara 2016). However, there is a wealth of information on ways in which to engage boys in reading activities from other countries, and these would be of particular relevance to MENA countries given that boys' relative underperformance

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15   This is from OECD PISA 2018 data.

is greater in MENA than in other regions. Therefore, further research on supporting struggling readers (including boys) in the context of Arabic language learning in MENA countries is needed.

Box 5. Helping Students Who Are Struggling with Their Literacy

Recommendations from a review of evidence on improving literacy in the early grades includes:

1. Schools should initially focus on ensuring that they offer high-quality in-class support for the whole class. However, even when excellent classroom teaching is in place, it is likely that a small but significant number of children will require additional targeted literacy support.
2. Use accurate assessment of capabilities and difficulties to ensure interventions are appropriately matched to pupil needs.
3. Use one-to-one and small-group tutoring ideally involving structured interventions. There is consistent evidence this approach supports children struggling with aspects of literacy.
4. Regularly review children's progress while they are part of the intervention to ensure the support indeed enhances their learning.

Source: Education Endowment Foundation 2020, p. 9.

The strategies that are most helpful for supporting boys' reading are also ones that support girls' reading. For example, England's four-year initiative on "Raising Boys' Achievement" found that strategies such as the following were particularly helpful for boys but also effective for girls (Younger et al. 2006):

1. Paired reading, which involves one student (the tutor, a more accomplished reader) supporting the other (the tutee) with their reading, combined with shared reflection whereby the children are given the space to talk and reflect on their reading and share ideas about the text.
2. Acknowledging the central importance of speaking and listening.
3. Writing activities that encourage collaboration in story development.
4. Realistic and challenging target setting and mentoring.
5. Developing a team ethic and class identity supported by humor and informality.

These take time to be embedded and to be successful. Regardless of the specific strategy, the initiative concluded that it "all depends at the most basic level on inspiring, imaginative and exciting pedagogy, which generates enthusiasm for learning and achievement, and on a school ethos which encourages and facilitates achievement in its widest sense" (Younger et al. 2006, p. 149).

In addition, several countries have developed initiatives particularly focused on boys' reading, such as the Premier League Reading Stars in the UK—a flexible 10-session reading intervention involving grade 5 and grade 6 students working with teachers and authors, aligned to the English and Welsh curricula, giving opportunities to practice their reading skills using football-related resources and texts. This was found to raise the progress of three out of four children by at least six months, and one in three children made a year's progress or more.[16] Similarly, in Germany, the one-year "Kicking and Reading" program aimed at lower secondary school boys mixed soccer training with reading to raise literacy levels (Brozo 2019).

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16   https://plprimarystars.com/resources/reading-stars-pack; https://www.premierleague.com/news/61431.

Engaging boys in reading throughout their schooling requires creative thinking on the part of teachers and parents, particularly for struggling readers and through the adolescent ages (Brozo 2019). In a study of five countries' PISA results, Brozo et al. (2014) concluded the following five guidelines for literacy policy and practice would elevate boys' reading literacy competencies:

1. Support wide and regular reading of a variety of texts related to boys' individual interests.
2. Support boys' use of digital texts and alternative media.
3. Involve fathers and other adult male role models in programs for boys.
4. Focus on practices for boys that promote reading engagement.
5. Set priorities for addressing the literacy needs of boys.

Each of these warrants further research and attention in Arabic-speaking countries, particularly those in which there are large instances of boys' underachievement. However, these can also be applied to all children (including girls) in the context of making Arabic language learning more fun and engaging in MENA countries than current practices allow.

This section of the report has examined a large number of factors that are influencing Arabic language learning outcomes across MENA countries, along with factors that are known to be related to language learning more generally across other regions. In the next section, efforts to address these factors through the development of national strategies, policies, or initiatives for Arabic language education are summarized and discussed.

NATIONAL STRATEGIES, POLICY, AND INITIATIVES FOR ARABIC LANGUAGE EDUCATION

There are few MENA countries with a national-level strategy or policy, but most have initiatives planned or underway, or undertaken in the past, to try to improve Arabic language learning outcomes. A few of these are summarized in this section and discussed in terms of the factors identified in the above section that influence Arabic language learning outcomes.

A multidimensional, national approach to Arabic literacy—the United Arab Emirates

In the United Arab Emirates, there has been a push from the highest levels to preserve the Arabic language and modernize its pedagogy. The Vice President and Prime Minister of the United Arab Emirates and ruler of the Emirate of Dubai has launched several large Arabic language initiatives at the federal and government of Dubai level, and allocated the funding and human resources needed (Taha-Thomure 2019). These have proven to be popular and effective, garnering attention throughout MENA (Akhanian 2016; Bell 2016). This started in 2012 with an Arabic Language Charter, which served as a frame for all policies and laws related to modernizing and preserving the Arabic language. This charter included 13 initiatives including:

1. Emphasizing the Arabic language as the official language of the United Arab Emirates, and therefore the language of official communication, laws, and decrees, and the language of all government services.
2. Encouraging all private schools and language centers to offer Arabic language classes for non-native learners.
3. Allocating responsibility to higher education institutions and research centers in the United Arab Emirates for enriching the Arabic language with new terminology and lexicon, and conducting academic research to inform the field of Arabic language teaching and learning, including translating international research into Arabic.

In 2013, the BilArabi ("In Arabic") initiative was launched to encourage the public to preserve the Arabic language by using MSA as their primary form of communication in social media (Taha-Thomure 2019). While this initiative garnered supporters, it is not yet known the degree to which young people took this up. Other associated initiatives in the United Arab Emirates included the "Arabic Award," which recognizes outstanding contributions in teaching and learning Arabic, technology, culture, media, language policy, translation, and others (Taha-Thomure 2019).

Two key publications were developed. Firstly, "Arabic for Life" in 2014, which included proposed ways to modernize the teaching and learning of Arabic, including through curriculum development, developing a culture of reading, teacher preparation and training, the role of the media, and Arabic for non-native learners (United Arab Emirates Prime Minister's Executive Office 2014). Secondly, the "Arabic Language Status and Future Report" (United Arab Emirates Ministry of Culture and Youth 2020) (box 6).
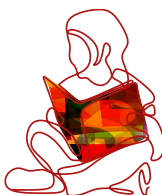
Box 6. Findings from the Arabic Language Status and Future Report

In 2020, the United Arab Emirates Ministry of Culture and Youth published its "Arabic Language Status and Future Report." This report was the culmination of extensive qualitative and quantitative research involving a survey of over 5,000 tertiary education students from various fields of study across 16 Arabic-speaking countries, along with in-depth focus groups, to ascertain views on the Arabic language and on the teaching and learning of Arabic.

The study found that Arab university students have a love of the Arabic language and see it is integral to their identity. However, they tend to believe that Arabic is difficult and becoming less relevant in the current times of technology and social media, and that it is not as helpful in professional pursuits as other languages. There was widespread belief that the teaching of Arabic in schools is grammar and rules focused.

Students tended to express that the curriculum and schools do not do a good job of promoting the Arabic language. In fact, 59 percent strongly agreed that governments should do more to promote Arabic. A large majority (88 percent) believed that education technologies would enhance Arabic learning, and 93 percent believed that modern texts would help in the learning of Arabic.

The influence of foreign languages were considered a key driver of poor Arabic language learning outcomes, followed by teaching practices and pedagogy.

Overall, the key message from this in-depth study has been that there is a fundamental love of the Arabic language among young people, but that the teaching of the language has led to disengagement with the language and feelings that it is a difficult language that is dominated by form and grammar.

Source: United Arab Emirates Ministry of Culture and Youth 2020.

In 2015, the Arabic Reading Challenge was launched in the United Arab Emirates to instill a love for reading and create a habit of reading, with many millions of children around the world joining in. In 2016, the first "Reading Law" in the region was issued in the United Arab Emirates. This mandates that reading is a right available to all. As part of this law, every Emirati newborn receives three book bags targeting ages birth to four years (Salama 2016). In addition, all school and university libraries and public libraries are asked to enrich and increase their collections on an annual basis. All reading "goods" and materials became tax exempt under this law. In addition, one month a year is dedicated to reading in the United Arab Emirates (Taha-Thomure 2019).

Secondly, "Living Arabic" was launched in 2016 by the Knowledge and Human Development Authority (KHDA) in Dubai. This is a platform for educators to share and develop innovative solutions for Arabic language teaching and learning among the emirate's majority private schools (Taha-Thomure 2019). Following this, in 2017, a directive was issued to all public and private schools requiring all Arabic language teachers to use MSA during conversations and curriculum delivery. In addition, school inspectors were to assess teachers' language use with the understanding that MSA is a priority.

Finally, a national Arabic language strategy was developed in 2017. The strategy focuses on grades 1 to 3 and the training of teachers in phonetic and literature-rich approaches to teaching reading. Within this strategy, classrooms are to have "reading corners." Teaching approaches are to include four types of reading—reading aloud, shared reading, guided reading, and independent reading—

along with word study. The strategy has been piloted with a view to expanding to all public schools across the United Arab Emirates.

This unprecedented attention to the Arabic language and its learning in the United Arab Emirates is a good example of a multidimensional, national approach. Several elements are particularly promising in light of the factors identified as being most important for effective Arabic language learning. For example, the focus on the early years, having a culture of books and reading, emphasizing the use of MSA in classroom dialogue, and the training of teachers in phonetic and literature-rich approaches is in line with evidence-based practices. Time will be needed to evaluate the outcome of these initiatives. In the meantime, it will be important to keep up the momentum, especially in terms of having a vision to ensure new teachers are prepared, and practicing teachers and school leaders are trained and supported to make real and lasting changes to the traditional ways of teaching the Arabic language.

Scaffolding and sustained support to teachers—an Israeli Palestinian intervention

A seven-month intervention in Israeli Palestinian kindergartens in low socioeconomic areas was highly successful in raising children's letter knowledge, alphabetic awareness, and phonological awareness (Levin et al. 2008). The intervention consisted of forming homogenous small groups of four to five children organized by their levels of literacy. Attention was given to the formation of these groups, including based on friendships or avoiding potentially disruptive pairings. Each group participated in literacy games, adapted to their level, for 25 minutes a week. These included, for example, linking letter shapes and names; rhyming words, segmenting initial/final syllables, and inventing word spelling (phonological awareness activities); and letter–sound mapping. The teachers gave the children corrective feedback and encouraging comments throughout.

Remarkably, the children in the intervention group raised their letter knowledge, alphabetic awareness, and phonological awareness compared to the comparison group. The success of the intervention was attributed to the following factors:

1. Teachers involved in the intervention took part in professional study groups (where they met with experts) and received ongoing mentoring through the study group and individually. This mentoring aimed at increasing their subject-related knowledge (since Arabic language has particular challenges for beginner readers) and pedagogical knowledge.
2. The children were carefully placed in small homogenous groups, allowing targeting of the level of the activities.
3. Teachers were provided with printed guidelines for activities but were also encouraged to deviate from the instructions when they noticed that the activities were too difficult or easy, or not sufficiently engaging for the particular group of children.
4. The activities focused on a well-defined and limited set of literacy-related skills, which allowed teachers and students to focus on those skills.

These factors closely align with some of the well-documented effective teaching and learning strategies, including the use of mentoring for teacher professional development and the importance of high-quality support material and guides for teachers (World Bank 2019c), as well as small group teaching "at the right level."[17]

Coordinated supports to early grade reading—West Bank and Gaza

In September 2017 a USAID-funded program to support the West Bank and Gaza Ministry of Education and Higher Education on early grade reading interventions was established, although the originally planned five-year program was cut short in early 2019 due to factors outside of the control of the implementers (RTI International 2019). However, during this time, much was achieved, and a strong base was provided for future development on which lessons could be shared.

Through this program, Palestinian teachers were supported with additional strategies and resources to help build their students' reading and writing skills. The focus was on changing classroom practices for reading and writing instruction in kindergarten to grade 2 in the West Bank through three components: (1) evidence-based standards and curriculum revisions, (2) instructional improvements, and (3) parental engagement activities.

The outputs of the program (completed and partially completed) included:

1. Book leveling criteria. These can be used to facilitate the development or procurement of books for schools;
2. Teacher training modules on early grade reading and writing skills;
3. A reading remediation manual;
4. A school-based professional development model;
5. Materials for parents to use to enhance their children's reading skills (activity cards);
6. A pre-reading and writing skills assessment;
7. Reviews of standards;
8. Oral reading fluency benchmarks;
9. A glossary of kindergarten to grade 2 word texts, phonetically and by grade;
10. Leveled readers; and
11. Cards to stress kindergarten to grade 2 MSA vocabulary words that align with dialects.

The information gathered and communicated during the program helped form the government's decision to optimize classroom MSA instructional time by eliminating homework in grades 1 to 4, phase in kindergartens in each school, and provide university students with community service hours for mentoring beginner readers and assisting in early grade classrooms.

This program, though cut short, developed a set of resources that align with many of the key factors identified as important for the teaching and learning of Arabic. These include determining pre-reading and writing skills that children arrive to kindergarten with so that teachers can provide appropriate

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17   http://teachingattherightlevel.org.

activities, and providing well-organized reading materials to support children's progress, along with support to parents to enrich MSA activities outside of the classroom.

A community—school intervention—Care International Egypt

To address reading and writing problems faced by grades 4 to 6 students in Egypt, Care International Egypt has undertaken two projects: (1) the Early Grade Literacy in Egypt (EAGLE) project supported by HSBC Bank (2014–2016), and (2) the Ana We Madrasty Project (2016–2021) supported by Dubai Cares. These have been implemented in 20 and 30 schools, respectively.[18]

An assessment which measures 10 basic literacy skills, was used in both projects. Using this, children were placed into one of three groups. As a result of the projects, on average children scored 80 percent higher in the post-intervention assessment. Most children in the lowest group moved up a group and some moved to the top group.

The intervention included:

1. A comprehensive specialized capacity building program on Arabic literacy for teachers, supervisors, social workers, and community volunteers.
2. Activities for children in and out of school, such as broadcasted activities, weekly remedial classes for eight weeks, interscholastic competitions, support for libraries, learning through sports and drawing, and reading competitions through libraries and mobile learning apps.
3. Awareness sessions for parents on literacy problems, positive parenting, and ways to follow up and support children.
4. Community awareness efforts to increase engagement to support literacy efforts.

In addition to literacy progress achievements, both interventions noted positive behavioral changes among children, including increased self-confidence; academic achievement in other subjects, such as sciences and social studies; and parental changes, including greater confidence in their own ability to support their children and in their schools. In addition, teachers' attitudes toward students became more positive.

Enjoying Arabic through a new curriculum—Morocco

In August 2020, Morocco's Ministry of Education released the first complete draft of its primary education curriculum (grades 1 to 6), including a revamped Arabic language curriculum. This is the result of six years of work by the ministry with USAID on its "Reading for Success—National Program for Reading." This work involved many technical experts in language and pedagogy, academics, teacher educators, and teachers across the country (Creative Associates International 2020).

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18   https://care.org.eg/.

This work began with three situational analysis studies on reading instruction: (1) classroom context, teacher attitudes, and skills; (2) teacher training and supervision systems; and (3) curriculum and teaching and learning materials. These studies concluded that the primary school literacy curriculum was failing students and teachers. Finding solutions to the problem—agreeing how to make Arabic language learning enjoyable and worthwhile—took longer given different perspectives. A curriculum framework, with scope and sequence, was developed by a technical team in collaboration with the Ministry of Education and regional inspectors and teacher trainers. This was piloted in a group of 90 schools, including the training and coaching of teachers in the new curriculum and its delivery methods. These trained teachers supported the nationwide rollout in 2018 by training other teachers.

The COVID-19 pandemic interrupted the curriculum reform process. However, the curriculum had been rolled out across the country in the school years 2018–2019 and 2019–2020 for grades 1 to 4, with the rollout to continue for grades 5 to 6.

Practice and repeated exposure to build speed and accuracy—the Iqra curriculum

Drawing on brain science, the Iqra curriculum was developed to explicitly train grade 1 students in decoding and to provide repeated exposure to MSA patterns so as to increase children's speed and accuracy. The aim is to free up processing space for the more advanced processes required in learning Arabic. This is a low-cost add-on program to the grade 1 curriculum which requires minimal resources, training, and external support. Its methods are similar to remedial reading programs in other languages whereby repeated exposure and practice are emphasized. The curriculum pays particular attention to aspects such as font size and spacing.

The Iqra curriculum has been implemented in a small number of schools in the United Arab Emirates and shows promising results (Wilson et al. 2020). Over the period of one year, the intervention group had five regular 45-minute Arabic lessons and two additional 45-minute lessons using the Iqra curriculum (when other children did extracurricular activities). The control group had five regular 45-minute Arabic lessons only. At the end of one year, children in the intervention group were able to read more letters and words correctly on average in one minute than those in the comparison group. A pre-pilot of two adaptations of this curriculum were due to start in Jordan, though have been interrupted due to the COVID-19 pandemic-related school closures. One method will be to embed this curriculum in regular whole-class instruction. The other will be to use it with small groups of struggling readers during weekly free activity periods.

Harnessing the MSA/dialect overlap—the Pearson bilArabi program

To fill the gap in complete early grade literacy programs that purposely link children's skills at entry to school with instruction, harnessing the overlap of MSA with their dialect, and engaging them with sentence structures and lexicon at their levels, the bilArabi program was developed by Dr. Hanada Taha, the Endowed Chair Professor of Arabic Language at Zayed University, in collaboration with

Pearson company.[19] The program includes curriculum standards, literature-based program content, and components that include teacher resources, learner books, a digital platform, e-books and e-learning resources, data-driven assessment tools, and professional development. As of 2021, the Pearson bilArabi program is being used by 20 schools in 11 countries, with a pilot underway in three public charter schools in Abu Dhabi.

Evidence-based teacher engagement campaign—Jordan

In an effort to fill the gap in evidence-based resources to support Arabic language classroom practice for grades 1-6, in 2019, Queen Rania Foundation launched a Teachers' Engagement Campaign. This campaign started with a comprehensive framework for teaching and learning foundational Arabic literacy, drawing on international research on mother-tongue language learning. The framework includes teacher-friendly recommendations and specific learning targets to help teachers working with their students. Around 200 resources have been produced as part of the Teachers' Engagement Campaign. These resources were mostly shared through social media channels, but were recently compiled and organized within a dedicated website.[20]

Other developments

There are many other Arabic language education initiatives that are, and have been, planned and implemented in countries across the MENA region. For example, a national consultation toward the development of a National Literacy Strategy is being considered in Jordan at the time of preparation of this report.

The need for emergency distance education caused by the COVID-19 pandemic rapidly steered attention to digital resources for students of all levels. Education technologies (EdTech) can have benefits for language learning in several ways if applied with careful consideration, planning, and alignment with the context and curriculum (box 7). Arabic literacy and preliteracy apps such as the Queen Rania Foundation's Karim and Jana have appeared in greater numbers, while other technology tools that have connected teachers to their students have proved invaluable.[21]

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19 https://middleeast.pearson.com/K12/bilarabi.html.
20 https://www.qrf.org/en/educational-resources/resources-arabic-language-teachers.
21 https://karimandjana.com/site/.

Box 7. Education Technologies (EdTech) for Arabic Literacy

With advancements in EdTech, there is now a multitude of software, applications, and digital materials that can enhance the teaching and learning of all subjects, including Arabic. The COVID-19 pandemic has accelerated teachers' and students' use of EdTech, alongside a growing interest in technological investments that enable education continuity while also enriching students' learning experiences. This includes technologies that help to make reading materials more widely available, that enhance communication between teachers and students, and that organize learning materials and experiences, whether in the classroom or remotely.

Literacy applications have become popular and more prevalent as parents and educators have looked for ways to encourage and motivate children to read. There tends to be two types of literacy applications. Firstly, those that introduce children to core content using a sequence of concepts that build on each other to help children gain skills. These types of applications often include indicators of progress to help educators ascertain students' progression in reading and writing. Secondly, those that provide opportunities for practice and reinforcement of key concepts and skills; for example, to provide support to reading at home.

Compared to the high costs of traditional printing of reading materials, literacy applications can be relatively cost-effective. There is also the advantage in some literacy applications of embedded technologies such as text-to-speech and speech-to-text, which can be particularly helpful for students with disabilities that limit sight, speech, and hearing. With significant data analytics abilities, literacy applications have the potential to provide a rich source of data to educators to monitor children's progress and identify specific difficulties.

For Arabic language learning, new and popular literacy applications include, among others, Feed the Monster, Antura and the Letters, Karim and Jana, Kamkalima, and News-O-matic.

However, there are several important points that should be considered before literacy applications are incorporated into programs for children. Firstly, literacy applications are generally not designed to align with specific national curricula and the resulting misalignment in children's educational experiences can cause confusion. Many such applications are also not designed with educational quality or child development standards in mind or with rigorous applied research (Vaala, Ly, and Levine 2015). Therefore, an important step in the selection or development of a literacy application is to clearly define the target audience and their educational needs in relation to existing curriculum standards.

In addition, literacy applications are often rolled out without cultural translation, meaning that they are not as relevant to the local context as they were to the context in which they were developed. As a result, they can be less meaningful and engaging for children at best, and cause confusion at worst. The early testing of literacy applications is important since localizing (with cultural translation) is a significant investment and a decision that should be made after the application has been shown to be effective with a diverse set of teachers and learners in the local context.

Source: Based on 2021 unpublished PowerPoint presentation, World Bank Edtech Team.

While this innovation is encouraging, there appears to be a common issue across several MENA countries in which promising initiatives have often not scaled up, and overarching direction of Arabic language education has been unstated or unclear. In the case of Arabic language standards, for example, these have been developed in many countries but are not obviously linked to teachers' instructional decisions, teaching and learning materials, and student assessments and reporting. Reasons for these disconnects may be due to a lack of explicit support and direction from the highest levels, or a need for capacity development in middle management levels of government. The role and engagement of partners, including donor partners, may need to be further developed to ensure deeper embedding of effective initiatives within overall strategies for Arabic language teaching and learning. The greater involvement of key organizations, such as local university faculties of education, teacher training colleges, publishers, and research institutes, would likely help in embedding new methods across education systems. With high-quality vendors for the development of teaching and learning materials in the region being in high demand, and experts in Arabic pedagogy being scarce, the sharing of existing resources in the form of global public goods would give a wider benefit to more children of the region.

A PROPOSED PATH TO REDUCE LEARNING POVERTY IN MENA

Amyriad of factors influences the learning of Arabic among children in the MENA region. Many of these factors can be addressed through changes in education policy and related programming. Such changes are critical if countries of the region are to reduce the high rates of learning poverty—given that 59 percent of MENA's children are unable to read and understand an age-appropriate text by age 10, the urgency is clear.

To assist MENA countries in their efforts to eliminate learning poverty, a path is proposed that identifies the most critical actions. The path is based on (1) the analyses in this report, including the extent of learning poverty; (2) the factors that influence Arabic language learning outcomes; and (3) lessons learned from successful national strategies and initiatives.

How can countries advance Arabic language teaching and learning?
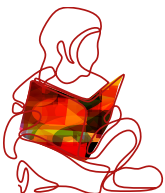
1. Develop specific, quantifiable goals for children's Arabic language learning outcomes in the short and long term with support from the highest levels of government and clear links to countries' social and economic policy goals, for example through a national literacy strategy.

   Promote the goals widely and accompany them with associated action plans for all key actors, along with mechanisms to monitor and evaluate progress toward the goals. Key actors include government departments responsible for education, child development, finance, and planning, as well as university faculties of education, research centers, teacher training colleges, teacher professional organizations, educators, developers of curriculum and teaching and learning materials for Arabic language and all subjects, children's authors, producers of children's entertainment, and researchers, among others. Use media to reinforce key messages and engage the whole of society in efforts to raise Arabic language learning.

2. Define and harness common features and vocabulary between MSA and colloquial forms of Arabic to build a bridge between children's knowledge of colloquial Arabic and learning of MSA.

   Explicitly teach links between colloquial and formal Arabic using targeted materials, recognizing the extent of overlap and using this to support children's learning. This includes starting with simple words that are used in MSA and dialects, highlighting common patterns, and explicitly teaching phonemes that exist in MSA.

3. Expand children's early exposure to MSA, especially vocabulary and syntax, in engaging ways.

Encourage parents to increase their children's exposure to MSA, including reading to their children in MSA from an early age. In school, explicitly teach sounds, vocabulary, and syntax from MSA that are not found in local colloquial Arabic. Inside and outside school, increase children's access to engaging children's literature, cartoons, and children's television programs in MSA. Implement strategies to bolster children's early oral language development and engagement with literacy activities and MSA, in and out of school, especially for boys given the significant underperformance of boys in many MENA countries.

4. Set detailed standards for reading progression based on the science of learning to read, with aligned high-quality and contextualized teaching and learning resources (including digital resources), teacher guides and professional development (to scaffold teaching), and diagnostic assessments.
    Focusing initially on the early grades of formal schooling, incorporate a phonics-based introduction to reading, enrich vocabulary and listening comprehension, explicitly teach word patterns, and enhance comprehension skills (especially higher-order thinking skills) through direct and explicit instructional strategies (for example, daily reading aloud of children's literature in class, more freedom to use "less formal" MSA words, and classroom environments rich in children's literature that appeals to boys and girls). To monitor children's progress, build activities into lesson plans that help teachers "check for understanding" daily, determine student understanding of new concepts, and apply early grade reading assessments periodically. This structured start to Arabic language learning should be built on across the K to 12 grades to promote higher-order reading and critical thinking skills.

5. Revisit Arabic language teacher education programs (pre-service) and teacher professional development programs (in-service) to add Arabic language pedagogy studies, extensive practical experience with students, and effective planning for student learning.
    Improve teachers' understanding of the principles of teaching the Arabic language and effective methods of teaching, and their ability to implement these methods, including phonics methods, plus their skills in managing and planning for learning, including explicit strategies for supporting boys' learning.

6. Ensure that every school has a robust early grade Arabic instructional program with sufficient time allocated, aligned school leader responsibilities, and support for teachers.
    Develop resources for schools to create clear instructional goals for each child and corresponding simple monitoring tools to assist follow-up and ensure learning for each individual. Provide essential materials and training to the leadership and instructional teams in every school. Materials should include engaging learning materials for every child and supportive guides for every teacher with supplementary reading materials. Training should include continuous professional development for school leaders and teachers on effective literacy instruction, teacher coaching by experienced school-level or external personnel, and formative supervision. Ensure sufficient time for reading instruction and practice. Give priority to Arabic language development, particularly reading and writing. This might require

less compartmentalization of subjects in the early grades and support for literacy learning across subjects.

7. Identify, support with early intervention, and monitor struggling readers, especially in the early grades.

   Encourage teachers to use diagnostic assessment to understand learners' needs, engage and motivate reluctant readers by providing appropriately leveled reading materials that match students' interests, and involving parents and caregivers. Delay the move to unvowelized text until developmentally appropriate and give choice across the grades in which children are transitioning. For those who need more support, continue to provide vowelized text. Ensure that early intervention programs include targeted screening for vulnerable populations, including children with disabilities and refugees.

How could regional collaboration support country efforts?

Opportunities for sharing and collaborating across Arabic-speaking countries include developing:

1. Detailed standards for the development of early grade Arabic language teaching and learning materials that promote the use of structured phonics, fluency, and comprehension instruction, and appropriate sequencing of literacy skill development.
2. Guidance to authors of children's literature and early grade readers on selection and use of words to assist early readers. For example, developing and using lists of words common across countries, and having leveled texts, emphasizing patterns and rhymes in the case of the youngest learners.
3. Exemplar open licensed lesson plans, beginning readers, teacher guides, and teacher training that can be shared through digital platforms and adapted to local contexts.
4. A network of university faculties of education across the region to build specialization in Arabic language pedagogy. The network could take forward the agenda of improving Arabic language teaching and learning from a research and practice perspective.
5. The development of multifaceted promotional campaigns focused on reading at home and in other settings outside of school.
6. A prioritized research agenda to continuously strengthen the knowledge base on Arabic pedagogy, and to develop a shared understanding of the science of reading and effective teaching of the Arabic language to raise student outcomes and reduce learning poverty.

REFERENCES

Abadzi, Helen. 2017. "Improving Students' Academic Achievement: The Crucial Role of Rapid Reading and Grammar Mastery in the Early Grades." Policy Paper No. 20. Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research.

Abadzi, Helen, and Marialuisa Martelli. 2014. *Efficient Reading for Arab Students: Implications from Neurocognitive Research."* Paper presented at the World Summit of Innovation in Education (WISE) November 5, 2014. Doha, Qatar.

Abdulaziz, M. H. 1986. "Factors in the Development of Modern Arabic Usage." *International Journal of the Sociology of Language* 62: 11–24.

Abdul Bari, M. S. 2011. "The Holistic Approach to Reading." Retrieved in 2013 from Arab Bureau of Education for the Gulf States: https://www.abegs.org/Aportal/Post/Show?id=10871&forumid=23.

Abu-Leil, Aula Khateeb, David L. Share, and Raphiq Ibrahim. 2014. "How Does Speed and Accuracy in Reading Relate to Reading Comprehension in Arabic?" *Psicológica* 35: 251–276.

Abu-Rabia, S. 2000. "Effects of Exposure to Literary Arabic on Reading Comprehension in a Diglossic Situation." *Reading and Writing: An Interdisciplinary Journal* 13: 147–157.

Akhanian, M. 2016. "Arabic Language Initiative in the UAE Reaches Millions of Arabs." *Gulf News*. https://gulfnews.com/uae/government/arabic-language-initiative-in-uae-reaches-millions-of-arabs-1.1945198.

Al-Hamouri, Firas, Fernando Maestu, David del Rio, Santiago Fernandez, Pablo Camp, Almudena Capilla, Emilio Garcia, Javier Gonzalez-Marques, and Tomas Ortiz. 2005. "Brain Dynamics of Arabic Reading: A Magnetoencephaligraphic Study." *Cognitive Neuroscience and Neuropsychology* 16 (16).

Al-Huri, Ibrahim. 2015. "Arabic Language: Historic and Sociolinguistic Characteristics." *English Literature and Language Review* 1 (4): 28–56.

Al-Issa, Ali S. M. 2020. "The Language Planning Situation in the Sultanate of Oman." *Current Issues in Language Planning.* doi:10.1080/14664208.2020.1764729.

Allington, R. L. 1977. "If They Don't Read Much, How They Ever Gonna Get Good?" *Journal of Adolescent and Adult Literacy* 21: 57–61.

Allington, R. L. 1983. "Fluency: The Neglected Reading Goal." *The Reading Teacher* 36 (6): 556–561.

Al-Othman, Hanadi, Eve Gregory, John Jessel, and Azza Khalil. 2015. "Early Literacy Model in a Saudi Arabian Preschool: Implementation in a Different Cultural Context." *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)* 5 (2): 2511–2522.

Al-Qaryouti, Ibrahim A., Fathi M. Ihmeideh, Ghanem J. Al bustami, and Maayyad A. Homidi. 2016. "Evidence-based Strategies to Support Children's Emergent Literacy in the Gulf Cooperation Council (GCC) Countries." *European Journal of Developmental Psychology* 13 (5): 545–562. http://dx.doi.org/10.1080/17405629.2015.1124038.

Alshatti, Tareq, Nailah Al-Sulaihim, and Fauzia A. Abdalla. 2019. "Home-Based Literacy Practices of Arab Mothers from Kuwait." In Speech, Language and Hearing. In doi:10.1080/205057 1X.2019.1581464.

AlZeny, I. 2016. "A Conversation with One of the World's Most Influential Arabic Teachers." Al-Fanar Media. https://www.al-fanarmedia.org/2016/11/conversation-one-worlds-influential-arabic-teachers/.

Asadi, I. A., A. Khateb, and M. Shany. 2017. "How Simple is Reading in Arabic? A Cross-sectional Investigation of Reading Comprehension from First to Sixth Grade." J*ournal of Research in Reading* 40, S1–S22. https://onlinelibrary.wiley.com/doi/full/10.1111/1467-9817.12093.

Bell, M. 2016. "School Principals Insist Focus is on Improving Arabic Classes. *The National*. https://www.thenationalnews.com/uae/education/school-principals-insist-focus-is-on-improving-arabic-classes-1.230195.

Blachman, B. A. 2000. "Phonological Awareness." *Handbook of Reading Research*, edited by M. L. Kamil, P. B. Mosenthal, P. D. Pearson, and R. Barr. 3: 483–502. Lawrence Erlbaum Associates Publishers.

Brozo, William G. 2019. *Engaging Boys in Active Literacy. Cambridge*, UK and New York, NY: Cambridge University Press.

Brozo, William G., Sari Sulkunen, Gerry Shiel, Christine Garbe, Ambigapthy Pandian, and Renate Valtin. 2014. "Reading, Gender, and Engagement: Lessons from Five PISA Countries." In *Journal of Adolescent and Adult Literacy,* 57 (7).

Castles, Anne, Kathleen Rastle, and Kate Nation. 2018. "Ending the Reading Wars: Reading Acquisition from Novice to Expert." *Psychological Science in the Public Interest* 19 (1): 5–51.

Christie, F., and B. Derewianka. 2008. *School Discourse: Learning to Write Across the Years of Schooling*. London: Continuum.

Clark, Christina, and Kate Rumbold. 2006. *Reading for Pleasure: A Research Overview.* UK National Literacy Trust. https://literacytrust.org.uk/research-services/research-reports/reading-pleasure-research-overview/.

Creative Associates International. 2020. "Successful Arabic Language Curriculum Reform in Morocco." https://www.creativeassociatesinternational.com/insights/successful-arabic-language-curriculum-reform-in-morocco/.

Cunningham, P. 1979. "Beginning Reading Without Readiness: Structured Language Experience." *Reading Horizons: A Journal of Literacy and Language Arts* 19 (3). https://scholarworks.wmich.edu/reading_horizons/vol19/iss3/8.

Daoudi, A. 2011. "Globalization, Computer-mediated Communications and the Rise of e-Arabic." *Middle East Journal of Culture and Communication* 4 (2): 146–163. https://doi.org/10.1163/187398611X571328.

Education Endowment Foundation. 2020. *Improving Literacy in Key Stage 1: Guidance Report.* https://educationendowmentfoundation.org.uk/tools/guidance-reports/literacy-ks-1/.

Feitelson, Dina, Zahava Goldstein, Jihad Iraqi, and David L. Share. 1993. "Effects of Listening to Story Reading on Aspects of Literacy Acquisition in a Diglossic Situation." *Reading Research Quarterly* 28 (1): 71–79. https://doi.org/10.2307/747817.

Ferguson, Charles A. 1959. "Diglossia" *WORD* 15 (2): 325–340. doi:10.1080/00437956.1959.11659702.

Freimuth, Hilda. 2014. "Challenges to Building a 'Knowledge Society': The Role of Literacy in Promoting Critical Thinking in the UAE." Policy Paper No. 10. Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research.

Harb, Majed. 2019. "Hanada's Text Leveling System (HTLS) from Text Engagement to Text Engagingness." Academic Journal of Interdisciplinary Studies 8 (2): 272-276.

Gove, A., and A. Wetterberg, eds. 2011. *The Early Grade Reading Assessment: Applications and Interventions to Improve Basic Literacy.* RTI Press. RTI Press Publication No. BK-0007-1109. https://doi.org/10.3768/rtipress.2011.bk.0007.1109.

Hedrick, W. B., and J. W. Cunningham. 2002. "Investigating the Effect of Wide Reading on Listening Comprehension of Written Language." *Reading Psychology 23* (2): 107–126. doi:10.1080/027027102760351025.

Humphrey, S. 2017. *Academic Literacies in the Middle Years: A Framework for Enhancing Teacher Knowledge and Student Achievement.* New York and London: Routledge.

Hussien, A. M. 2014. "Reading Arabic Shallow and Deep Genres: Indispensable Variables to Science of Reading." *Journal of Education and Learning* 3 (1): 60–69.

Hwa, Y., M. Kaffenberger, and J. Silberstein. 2020. "Aligning Levels of Instruction with Goals and the Needs of Students (ALIGNS): Varied Approaches, Common Principles." RISE Insight Series. 2020/022. https://doi. org/10.35489/BSGRISE-RI_2020/022.

Jha, Jyotsna, and Sarah Pouezevara. 2016. "Measurement and Research Support to Education Strategy Goal 1: Boys' Underachievement in Education: A Review of the Literature with a Focus on Reading in the Early Years." Prepared for USAID by RTI International.

Juel, C. 1988. "Learning to Read and Write: A Longitudinal Study of 54 Children from First through Fourth Grades." *Journal of Educational Psychology* 80 (4): 437–447. doi:10.1037/0022-0663.80.4.437.

Halebah, M. 2013. "Methods of Teaching Reading for Beginners: Tenth Lecture. Retrieved in 2013 from Umm Al-Qura University: http://uqu.edu.sa/page/ar/121401.

Kamil, M. L., G. D. Borman, J. Dole, C. C. Kral, T. Salinger, and J. Torgesen. 2008. *Improving Adolescent Literacy: Effective Classroom and Intervention Practices: A Practice Guide.* NCEE 2008-4027. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. http://ies. ed.gov/ncee/wwc/PracticeGuide8.

Kintsch, W., and K. A. Rawson. 2008. "Comprehension." *The Science of Reading: A Handbook*, edited by M. J. Snowling and C. Hulme, 211–226. Hoboken, NJ: Blackwell Publishing. doi:10.1002/9780470757642.ch12.

Korat, O., D. Aram, S. Hassunha Arafat, H. Hag-Yehiya Iraki, and E. Saiegh-Haddad. 2014. "Mother–Child Literacy Activities and Early Literacy in the Israeli Arab Family." In E. Saiegh-Haddad

and M. Joshi (eds.) *Handbook of Arabic Literacy: Insights and Perspectives,* 323–347. Dordrecht: Springer.

Kwaik, Kathrein Abu Kwaik, Motaz Saad, Stergios Chatzikyriakidis, and Simon Dobnik. 2018. "A Lexical Distance Study of Arabic Dialects." *The 4th International Conference on Arabic Computational Linguistics (ACLing 2018)*, UAE.

Levin, I., E. Saiegh-Haddad, N. Hende, and M. Ziv. 2008. "Early Literacy in Arabic: An Intervention Study Among Israeli Palestinian Kindergartners." *Applied Psycholinguistics* 29 (3): 413 436.

Lewis, D. 2009. *Galaxy Stress Research,* Mindlab International, Sussex University, UK.

Maamouri, M. 1998. "Arabic Diglossia and its Impact on the Quality of Education in the Arab Region." A paper presented at The World Bank Mediterranean Development Forum, Marrakech, Morocco (September 3–6).

Mahfoudhi, Abdessatar, Gad Elbeheri, Mousa Al-Rashidi, and John Everatt. 2010. "The Role of Morphological Awareness in Reading Comprehension Among Typical and Learning Disabled Native Arabic Speakers." *Journal of Learning Disabilities* 43 (6): 500–514. doi:10.1177/0022219409355478.

Makhoul, Baha. 2016. "Moving Beyond Phonological Awareness: The Role of Phonological Awareness Skills In Arabic Reading Development." *Journal of Psycholinguistic Research* 46: 469–480. doi:10.1007/s10936-016-9447-x.

Maroun, M., and J. R. Hanley. 2017. "Diacritics Improve Comprehension of the Arabic Script by Providing Access to the Meanings of Heterophonic Homographs." *Reading and Writing* 30 (2): 319–335. doi:10.1007/s11145-016-9677-1.

Miles, Katharine Pace, and Linnea C. Ehri. 2019. "Orthographic Mapping Facilitates Sight Word Memory and Vocabulary Learning." In Kilpatrick, D., R. Joshi, and R. Wagner (eds.) *Reading Development and Difficulties*. Springer, Cham. https://doi.org/10.1007/978-3-030-26550-2_4.

Muhonen, Heli, Eija Pakarinen, Marja-Kristiina Lerkkanen, Lydia Barza, and Antje von Suchodoletz. 2020. "Patterns of Dialogic Teaching in Kindergarten Classrooms of Finland and the United Arab Emirates." *Learning, Culture, and Social Interaction.* 25. Elsevier.

Mullis, I. V. S., M. O. Martin, P. Foy, and M. Hooper. 2017. *PIRLS 2016 International Results in Reading*. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: http://timssandpirls.bc.edu/pirls2016/international-results/.

Muter, V., and K. Diethelm. 2001. "The Contribution of Phonological Skills and Letter Knowledge to Early Reading Development in a Multilingual Population." *Language Learning* 51 (2): 187–219. doi:10.1111/1467-9922.00153.

Nagy, W. E., and J. A. Scott. 2000. "Vocabulary Processes." *Handbook of Reading Research*, edited by M. L. Kamil, P. B. Mosenthal, P. D. Pearson, and R. Barr 3: 269–284. Mahwah, NJ: Lawrence Erlbaum Associates.

OECD. 2002. *Reading for Change: Performance and Engagement Across Countries. Results from PISA 2000*. Paris: OECD.

Oweini, Ahmad, and Katia Hazoury. 2010. "Towards a Sight Word List in Arabic." *International Review of Education.* 56: 457–478.

RTI International. 2019. West Bank and Gaza. *USAID Early Grade Reading Final Report.* Research Triangle Park: RTI International.

Saavedra, Jaime. 2021. "The Urgency and Opportunity to Return to Learning." Education for Global Development (blog). January 24, 2021. https://blogs.worldbank.org/education/urgency-and-opportunity-return-learning.

Saiegh-Haddad, E., and E. Geva. 2008. "Morphological Awareness, Phonological Awareness, and Reading in English–Arabic Bilingual Children." *Reading and Writing: An Interdisciplinary Journal* 21 (5): 481–504. https://doi.org/10.1007/s11145-007-9074-x.

Saiegh-Haddad, E., and R. Schiff. 2016. "The Impact of Diglossia on Voweled and Unvoweled Word Reading in Arabic: A Developmental Study from Childhood to Adolescence." *Scientific Studies of Reading* 20 (4): 311–324. doi:10.1080/10888438.2016.1180526.

Saiegh-Haddad, E., and B. Spolsky. 2014. "Acquiring Literacy in a Diglossic Context: Problems and Prospects." In E. Saiegh-Haddad and M. Joshi (eds.), *Handbook of Arabic Literacy: Insights and Perspectives,* pp. 225–240. Dordrecht, the Netherlands: Springer.

Salama. S. 2016. "Reading Law Opens a New Chapter in UAE." *Gulf News.* https://gulfnews.com/uae/government/reading-law-opens-a-new-chapter-in-uae-1.1922410.

Samuels, S. 1979. "The Method of Repeated Readings." *The Reading Teacher 32* (4): 403–408. doi:10.1177/002221948301600205.

Scottish Government. 2012. "Growing Up in Scotland: Assessing Contribution and Impact. Executive Summary," June 2012. https://growingupinscotland.org.uk/wp-content/uploads/2015/01/Growing-up-in-Scotland-assessing-impact-final-June-2012.pdf.

Shalhoub-Awwad, Y., and M. Leikin. 2016. "The Lexical Status of the Root in Processing Morphologically Complex Words in Arabic." *Scientific Studies of Reading* 20 (4): 296–310. doi:10.1080/10888438.2016.1180525.

Shamim, Fauzia. 2018. "Language, Identity and Education on the Arabian Peninsula: Bilingual Policies in a Multilingual Context." *Current Issues in Language Planning* 19 (3): 335–339, doi:10.1080/14664208.2018.1444954.

Share, D. L. 2004. "Knowing Letter Names and Learning Letter Sounds: A Causal Connection." *Journal of Experimental Child Psychology* 88 (3): 213–233. doi:10.1016/j.jecp.2004.03.005.

Smith, D. D. 1979. "The Improvement of Children's Oral Reading through the Use of Teacher Modeling." *Journal of Learning Disabilities* 12 (2): 39–42.

Snow, C., M. Burns, and P. Griffin. 1998. *Preventing Reading Difficulties in Young Children*. Washington, DC: National Academy Press.

Stahl, S. A., and M. M. Fairbanks. 1986. "The Effects of Vocabulary Instruction: A Model-Based Meta-Analysis." *Review of Educational Research* 56 (1): 72–110. doi:10.2307/1170287.

Stahl, S. A., M. G. Richek, and R. Vandevier. 1990. "Learning Word Meanings through Listening." Paper presented at the Annual Meeting of the National Reading Conference, Miami Beach, FL, December.

Taha, H. 2016. "The Development of Reading and Spelling in Arabic Orthography: Two Parallel Processes? Reading Psychology" 37 (8): 1149–1161. doi:10.1080/02702711.2016.1193580.

Taha, H. 2017. "Arabic Language Teacher Education." In A. Gebril (ed.), *Applied Linguistics in the Middle East and North Africa. Current Practices and Future Directions* 269–287. USA: John Benjamins Publishing Company.

Taha, H., and E. Saiegh-Haddad. 2016. Morphology and Spelling in Arabic: Development and Interface." *Journal of Psycholinguist Research*. doi:10.1007/s10936-016-9425-3.

Taha, Haitham, and H. Azaizah-Seh. 2017. "Visual Word Recognition and Vowelization in Arabic: New Evidence from Lexical Decision Task Performances." *Cognitive Processing* 18 (4): 521 527.

Taha-Thomure, H. 2009. "AlGhoul, the Phoenix, the Loyal Friend and Reading." In the proceedings of *The Arab Thought Foundation's Conference on Literacy* held in Beirut, Lebanon, Fall 2009.

Taha-Thomure, H. 2017. *Arabic Language Arts Standards and Performance Indicators*. Dammam: Educational Book House Publishing. ISBN: 978-603-8147-32-0.

Taha-Thomure, H., and R. Speaker. 2018. "Arabic Language Arts Standards: Revolution or Disruption?" *Research in Comparative and International Education*. https://doi.org/10.1177/1745499918807032.

Taha-Thomure, Hanada. 2008. "The Status of Arabic Language Today." *Journal of Education, Business and Society: Contemporary Middle Eastern Issues* 1 (3): 186–192.

Taha-Thomure, Hanada. 2019. "Arabic Language *Education in the UAE." In Gallagher, K. (ed.), Education in the UAE: Innovation and Transformation*. Springer. doi:10.1007/978-981-13-7736-5_5.

Taha-Thomure, Hanada, Shereen Kreidieh, and Sandra Baroudi. 2020. "Arabic Children's Literature: Glitzy Production, Disciplinary Content." *Issues in Educational Research* 30 (1).

Treiman, R., R. Tincoff, K. Rodriguez, A. Mouzaki, and D. J. Francis. 1998. "The Foundations of Literacy: Learning the Sounds of Letters." *Child Development* 69 (6): 1524–1540. doi:10.2307/11132130.

Uhlmann, Allon J. 2010. "Arabic Instruction in Jewish Schools and in Universities in Israel: Contradictions, Subversion, and the Politics of Pedagogy." *International Journal of Middle East Studies* 42 (2): 291 309.

UNESCO. 2019. Building Knowledge Societies in the Arab Region: Arabic Language as a Gateway to Knowledge. Paris: UNESCO.

UNESCO. 2020. "How Teachers are Leading Efforts to Ensure Learning Never Stops During COVID-19 Education Disruption" (blog), September 23, 2020. https://en.unesco.org/news/how-teachers-are-leading-efforts-ensure-learning-never-stops-during-covid-19-education.

United Arab Emirates Ministry of Culture and Youth. 2020. *Arabic Language Status and Future Report* (Arabic).

USAID. 2019. "Arabic Literacy and Numeracy State of the Art Conference Desk Review Final Report." Prepared independently by Dr. Helen Boyle on behalf of Social Impact Inc.

USAID Indonesia. 2014. "Indonesia 2014: The National Early Grade Reading Assessment (EGRA) and Snapshot of School Management Effectiveness (SSME) Survey: Report of Findings." https://shared.rti.org/content/indonesia-2014-national-early-grade-reading-assessment-and-snapshot-school-management

Vaala, S., A. Ly, and M. H. Levine. 2015. *Getting a Read on the App Stores: A Market Scan and Analysis of Children's Literacy Apps*. The Joan Ganz Cooney Center at Sesame Workshop. http://www.joanganzcooneycenter.org/wpcontent/uploads/2015/12/jgcc_gettingaread_exec.pdf.

Versteegh, Kees. 1997. *The Arabic Language*. New York: Columbia University Press.

Wilson, Elisabeth, Soohyun Jeon, Holly Cook, and Helen Abadzi. 2020. "Perceptual Enhancement for Arabic Reading: An Intervention to Support Fluency and Automaticity in Grade One." *Gulf Education and Social Policy Review* 1 (2): 1–21.

World Bank. 2018. *World Development Report. Learning to Realize Education's Promise*. Washington, DC: World Bank.

World Bank. 2019a. Ending Learning Poverty: What Will It Take? Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/32553 License: CC BY 3.0 IGO.

World Bank. 2019b. *Expectations and Aspirations: A New Framework for Education in the Middle East and North Africa: Overview*. Washington, DC: World Bank Group.

World Bank. 2019c. *Successful Teachers, Successful Students: Recruiting and Supporting Society's Most Crucial Profeesion*. Washington, DC: World Bank.

World Bank. 2020. *The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19*. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/34432 License: CC BY 3.0 IGO.

World Bank. 2021. "Urgent, Effective Action Required to Quell the Impact of COVID-19 on Education Worldwide." Press Release, January 22, 2021. https://www.worldbank.org/en/news/immersive-story/2021/01/22/urgent-effective-action-required-to-quell-the-impact-of-covid-19-on-education-worldwide.

World Bank EdTech Team. "Literacy Applications for All." (Unpublished PowerPoint presentation, 2021).

World Bank. Forthcoming (a). *Educational Underachievement Among Boys and Men*. Washington, DC: World Bank.

World Bank. Forthcoming (b). *An Architecture for Literacy: Creating Effective Instructional Plans for the Grades*. Washington, DC: World Bank.

World Bank. Forthcoming (c). *The Early Grade Reading Rainbow: Plain-language Explanation of What Kids Need to Learn in Order to Become Readers*. Washington, DC: World Bank.

Younger, Michael Robert, and Molly Warrington. 2006. "Would Harry and Hermione Have Done Better in Single-Sex Classes? A Review of Single-Sex Teaching in Coeducational Secondary Schools in the United Kingdom." *American Educational Research Journal* 43 (4): 579–620.

Zughoul, M. 1980. "Diglossia in Arabic: Instigating Solutions." *Anthropological Linguistics* 22 (5): 201–217.