Reading Loss in Arabic Language During COVID-19 in the UAE and Proposed Solutions: The Perspectives of Primary-Grade Arabic Language Teachers

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The COVID-19 pandemic caused significant disruptions in the field of education worldwide, including in the United Arab Emirates. Teachers and students had to adapt to remote learning and virtual classrooms, leading to various challenges in maintaining educational standards. The sudden transition to remote teaching could have a negative impact on students' reading abilities, especially in the Arabic language. To gain insight into the unique challenges encountered by Arabic language teachers in the UAE, a survey was conducted to explore their assessment of teaching quality, student-teacher interaction, and learning outcomes amidst the COVID-19 pandemic. The results of the survey revealed a significant decline of student reading abilities and identified several major issues in online Arabic language teaching. These issues included limited interaction between students and teachers, challenges in monitoring students' class participation and performance, and challenges in effectively assessing students' reading skills. The results also demonstrated some other challenges faced by Arabic language teachers, including a lack of preparedness, a lack of subscription to relevant platforms, and a lack of resources for online learning. Several solutions to these challenges are proposed, including reevaluating the balance between depth and breadth in the curriculum, integrating language skills into the curriculum more effectively, providing more comprehensive teacher professional development, implementing student grouping strategies, utilizing retired and expert teachers in specific content areas, allocating time for interventions, and improving support from both teachers and parents to ensure the quality of online learning.

Keywords: reading loss, Arabic language teachers, primary grades, online learning, United Arab Emirates

Introduction

The rapid spread of COVID-19 led to the implementation of safety measures around the world such as lockdowns, quarantines, and social distancing, as governments aimed to reduce face-to-face contact and limit group gatherings (Alvi, Bilal, & Alvi, 2021; Khlaif, Salha, Affouneh, Rashed, & ElKimishy, 2021). Policymakers in many countries took immediate action to temporarily close schools and other educational institutions, resulting in a massive shift from in-person to online learning. Researchers estimated that the pandemic affected 1.6 billion learners in more than 190 countries, with school closures impacting 94 percent of the world's student population (Zhdanov et al., 2022). As online learning and teaching emerged to ensure continuity of

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education amidst school closures, educators worldwide, who were generally unprepared for the sudden transition to a digital learning environment, faced significant challenges and had to establish alternative methods of learning and teaching to maintain flexibility and efficiency (Adedoyin & Soykan, 2020; Haron & Rakami, 2021; Riwanda, Nor, Ridha, & Islamy, 2022; Mustapa, Saad, & Ghani, 2021).

For language teachers, the rapid transition to remote teaching brought about new obstacles to effective language instruction, resulting in a significant reading loss among students. According to international data, the COVID-19 pandemic and the transition to online learning had a significant impact on global reading loss, as students faced difficulties in developing their reading skills, vocabulary knowledge, and overall language proficiency (Jakubowski, Gajderowicz, & Patrinos, 2023; Patrinos, Vegas, & Carter-Rau, 2022; Schleicher, 2020).

Arabic language teachers, specifically, encounter various difficulties in maintaining a high quality of education and addressing the reading loss experienced by their students (Alkhatnai, 2022). The process of learning the Arabic language typically takes place in classrooms, where students can benefit from educational materials, facilities, and infrastructure (Rahmawati & Febriani, 2021). Therefore, online learning exacerbates the challenges faced by Arabic language teachers and students as they transition towards comprehensive e-learning platforms (Mohammed & Mudhsh, 2021; Ritonga et al., 2021). In the context of a digital learning environment for Arabic language education, one of the major challenges to mastering the Arabic language among school students is the lack of basic vocabulary knowledge and skills (Rahimi, Nasri, & Samihah, 2021). Researchers have also reported that the global reading loss has been further exacerbated by a decrease in motivation to learn and use Arabic in the United Arab Emirates (UAE), where students faced subsequent difficulties in developing their language domain skills including listening, speaking, reading, and writing (Ellili-Cherif & Alkhateeb, 2015).

Teachers are tasked with finding effective solutions to address this reading loss and ensure that their students regain and strengthen their reading skills (Syafira & Dafit, 2022), which is particularly challenging when teaching a difficult language like Arabic (Ibrahim & Alhosani, 2020). Therefore, the primary aims of this study are to investigate the reading loss of Arabic language among primary-grade students in the UAE during the COVID-19 pandemic as perceived by Arabic language teachers, to examine the main challenges Arabic language teachers faced during this transition, and to identify strategies and solutions that Arabic language teachers have implemented and could implement to mitigate the detrimental impact of the shift to online learning.

Reading Loss During the Covid-19 Pandemic

In this research, "reading loss" refers to the decline in students' reading outcomes and skills as a result of prolonged school closures and the transition to online learning. According to the work of various researchers and language-specialized entities, there are several main reading outcomes for primary-grade students, including phonemic awareness, vocabulary development, reading fluency, comprehension ability and strategies, and interest and motivation in reading (Al-Homoud & Schmitt, 2009; Jafarpour, 2014; Nagaratnam & Al-Mekhlafi, 2013; Setiyadi, Mahpul, Sukirlan, & Rahman, 2016; Vojoudi, Tafti, & Ashkzari, 2017). Reading loss, thus, can be measured by comparing these reading outcomes using standardized reading comprehension assessments, as well as by analyzing students' writing samples before and after the pandemic. For example, a common assessment used to measure reading level and reading loss is the Reading Inventory or the

Developmental Reading Assessment. For primary grades, measuring reading loss can also be achieved through running records to assess students' reading fluency, administering informal reading inventories to track their progress, and analyzing their written responses to prompt questions or prompts (Sun et al., 2021).

Studying Arabic can be an immense challenge, even in an ideal learning environment (Kerras & Essayahi, 2022), let alone in an online setting. Research findings revealed that the primary challenges of online learning were limited student-teacher interaction, difficulties in monitoring students' class participation and performance, and challenges in assessing reading comprehension skills, which include phonics, vocabulary, grammar (micro-skills) and the overall interpretation of texts (macro-skills) (Setiyorini, Yulia, & Robiasih, 2022). Firstly, Arabic language teachers have encountered difficulties in maintaining meaningful interaction with their students during the transition to online learning (Almelhes, 2021). This limited interaction has impacted their ability to provide personalized feedback and support, resulting in decreased student engagement and comprehension (Srivastava, 2020). Secondly, in an online setting, it is challenging for Arabic language teachers to effectively monitor students' class participation and performance. Without the physical presence of students in a classroom, it becomes difficult to track their progress and identify areas of improvement (Aldosari, Alramthi, & Eid, 2022; Urrutia, Yousef, & White, 2015). Thirdly, assessing and evaluating students' reading skills, both at the micro and macro levels, has proven to be a significant challenge for Arabic language teachers during online learning (Riwanda et al., 2022). As a result, it is crucial to propose solutions that address these challenges and mitigate reading loss among students (Dashti, 2019; Djamdjuri, Suseno, Tajuddin, Lustyantie, & Chaeruman, 2021).

To achieve desired reading outcomes, Arabic language teachers need to effectively integrate the four language skills—listening, speaking, reading, and writing—into the curriculum in a balanced and comprehensive manner (Razman, Ismail, & Ismail, 2022; Sadiku, 2015). A pilot study of a new early-grade curriculum for teaching Arabic reading, which incorporates findings from linguistics and cognitive science, underscores the significance of evidence-based design and evaluation in Arabic language instruction (Eckert, Wilson, Abadzi, & Jeon, 2020). Through integrating these skills, teachers can create a more holistic and engaging learning experience for students. Arabic language teachers should prioritize assisting students in developing a solid understanding of the sounds and pronunciation of Arabic letters and words, as this serves the fundamental basis for achieving reading fluency (Vojoudi et al., 2017). Fostering vocabulary development is the second reading outcome. There is a positive correlation between vocabulary knowledge and reading comprehension (Jafarpour, 2014; Nagaratnam & Al-Mekhlafi, 2013). Thus, Arabic language teachers should employ strategies to assist students in expanding their Arabic vocabulary. These strategies may include implementing word walls, conducting vocabulary exercises, and exposing students to a diverse range of Arabic texts. Thirdly, reading fluency needs to be developed. Arabic language teachers should provide opportunities for students to practice reading aloud and engage in repeated readings to improve their fluency. Fluency assessments can also be incorporated to track students' progress and identify areas for improvement. According to the existing research, the use of appropriate Arabic reading materials is crucial in the learning process, as it helps create students' interest and facilitates their language mastery (Al-Saqqar, Al-Shatnawi, Al-Diabat, & Aloun, 2019). Teachers can implement activities that require students to analyze and interpret texts, make connections to their own experiences, and evaluate the credibility of information (Alsaleh, 2020). Thus, Arabic language teachers should be trained on how to design reading activities that go beyond simple comprehension and encourage the development of critical thinking skills.

In addition, Arabic language teachers should instruct students in various comprehension strategies, including making predictions, summarizing, and asking questions. Research has shown that utilizing these

comprehension strategies enhances students' capacity to analyze texts and improves their reading performance (Al-Homoud & Schmitt, 2009). The ability to infer meaning from context and to identify and analyze literary elements is acquired through language lessons. Arabic language teachers should teach students how to use contextual clues and analyze word relationships (Mohamed Mokhtar, 2020). Finally, interest and motivation in reading should be developed and enhanced. In Arabic language classrooms, the use of culturally relevant texts could increase students' motivation and engagement (Jafarpour, 2014). Other strategies that Arabic language teachers should employ include incorporating interactive activities and providing opportunities for students to choose their own reading materials. Research has shown that Arabic language teachers must also be proficient in utilizing appropriate technology for the four Arabic language skills (Al-Busaidi, Al Hashmi, Al Musawi, & Kazem, 2016). According to a study conducted by Wargadinata and his fellow researchers (2020), the most popular learning material used by Arabic language learners during the pandemic was videos. This indicates that despite the lack of traditional student-teacher interaction, students were still able to access important language acquisition inputs through video materials. However, it is important to note that video materials alone may not be sufficient to promote effective reading instruction (Wargadinata, Maimunah, Febriani, & Humaira, 2020).

Methods

To achieve the research aims and objectives, a mixed-methods approach was employed. First, a structured survey was conducted among primary-grade Arabic language teachers in the UAE. The survey aimed to provide insight into teaching experiences of Arabic language teachers in the UAE during the COVID-19 pandemic. It focused on challenges they faced and the potential solutions they have implemented or suggested for promoting reading skills online. The survey was conducted online and teachers were invited through a WhatsApp group. 165 primary-grade Arabic language teachers volunteered to participate in the survey. Google Forms was used to gather data, and Excel was utilized to analyze the survey findings.

Table 1 illustrates the demographic information of the participants. Participants were predominantly female (73.08%) and held a bachelor's degree (61.54%). All participants were aged 31 years or older. Most of them worked in public schools and had taught online classes for five to 12 months during the pandemic.

Table 1

Participants' Demographic Information

Demographic information	%
Gender	
Male	26.92
Female	73.08
Age	
21-30 years	0
31-40 years	38.46
41-50 years	38.46
Above 50 years	23.08
Education level	
Diploma level	0
Bachelor's undergraduate level	61.54
Graduate studies	38.46

Table 1 to be continued

School type	
Public	80.77
Private	19.23
Other	0
Duration of online learning/school closure	
1-4 months	7.69
5-12 months	50
More than 12 months	42.31

Next, qualitative interviews were conducted with a subset of the available Arabic language teachers. The interview data collected were analyzed using thematic analysis, which enabled the identification of common themes and patterns related to the challenges faced by teachers and the proposed solutions for addressing reading loss during online instruction. The survey data and interview data were triangulated in the analysis to achieve cross-validation and complementarity.

Results

Reading Loss During COVID-19

Overall, according to the assessment of the teachers, most of the students were found to be six months to over a year behind in their progress along the curriculum due to the learning loss experienced during the COVID-19 pandemic (see Table 2). Many Arabic teachers further elaborated during the interviews that students' reading loss was estimated to be approximately by a decrease of around one grade level or more in terms of their reading abilities.

Table 2

The Percentage of Students That Experienced Reading Loss Measured by Arabic Language Teachers

Reading loss extent	%
1-3 Months	11.54
3-6 months	15.38
6-12 months	26.93
More than a year behind	46.15

More specifically, reading loss in Arabic language among primary-grade students in the UAE can be classified into the following main categories based on the existing literature and teachers' responses (see Table 3). *Phonemic awareness*: Phonemic awareness refers to the ability to identify and manipulate individual sounds in words. Nearly 90% of the teachers reported that phonemic awareness was a significant challenge in promoting reading development during online instruction and a major area where reading loss occurred. Teachers generally expressed difficulty in assessing students' phonemic awareness skills remotely and providing effective instruction to develop these skills. This finding suggests that greater emphasis should be placed on phonics instruction and phonemic awareness activities in the online learning environment. *Reading fluency*: Due to limited student-teacher interaction and fewer opportunities for practice, students experienced a decline in reading fluency. This was observed by almost all the teachers in the survey (95.76%). *Reading comprehension*: 83.64% of teachers attributed student's declining reading comprehension skills to the teachers' difficulties in effectively monitoring students' class participation and progress. *Vocabulary development*: 81.82%

of the teachers reported that students' vocabulary skills were significantly affected during the transition to online learning. Limited exposure to printed materials and contextualized language, as well as the absence of in-person discussions in the online environment, posed challenges for Arabic language teachers in effectively teaching vocabulary. These challenges may have hindered students' acquisition of new vocabulary words. *Reading strategies*: The transition to online learning may have posed challenges for teachers in teaching specific reading strategies and comprehension skills to students, as confirmed by 83.03% of the teachers in the survey. *Reading motivation*, however, was only considered as an area of reading loss by nearly half of the respondents.

Table 3

Reading Loss Areas Demonstrated by Primary-Grade Students

Reading loss areas (multiple choices)	%
Phonemic awareness	90.30
Reading fluency	95.76
Comprehension skills/reading comprehension	83.64
Reading motivation	53.94
Vocabulary development	81.82
Utilizing metacognitive strategies	29.09
Utilizing reading strategies	83.03

Major Challenges Reported by Arabic Language Teachers During Online Teaching

The results depicted in Table 4 demonstrate a variety of prominent practical challenges experienced by Arabic language teachers during online learning. The most common severe challenge experienced was the lack of individualized support and feedback (53.94%), followed by difficulties in monitoring students' class participation and performance (48.48%), insufficient parent involvement and support (48.48%), and limited student-teacher interaction during online learning (41.82%). Limited social interaction and reduced language input, and limited student motivation and engagement were also identified by over one in five of the participants.

Table 4

Major Challenges of Online Learning Faced by Arabic Language Teachers

Major challenges (multiple choices)	%
Limited access to resources and materials	4.85
Limited social interaction and reduced language input	28.48
Lack of individualized support and feedback	53.94
Lack of access to digital assessment tools in Arabic	7.27
Insufficient parent involvement and support	48.48
Students' absence due to illness	12.73
Students' familiarity with apps and platforms	19.39
Limited access to technology and internet connectivity	16.36
Limited student motivation and engagement	23.03
Insufficient teacher training	16.97
Limited student-teacher interaction	41.82
Difficulties in monitoring students' class participation and performance	48.48

Teachers' Priorities During the Transition Back to In-person Learning

When schools reopen and Arabic teachers are faced with addressing the reading loss experienced by students during online learning, it is essential to have a well-thought-out plan in place. The main strategies implemented after the resumption of in-person learning involved evaluating and understanding current reading levels, reviewing the curriculum, bridging the gaps in the curriculum to catch up on academic learning, and offering intervention programs and extra academic assistance such as increased reading exercises and targeted instruction in small groups (see Table 5).

Table 5

Priority of Teachers Following School Resumption

Priorities (multiple choices)	%
Assessing students' progress and providing feedback	29.70
Assessing students' reading levels and providing targeted instruction	41.82
Reviewing the curriculum and identifying any missed objectives or skills	49.70
Bridging the gap to the new/current curriculum	58.79
Providing intervention programs	93.33
Providing ample opportunities for reading practice	78.18
Using appropriate and leveled Arabic language reading materials	67.27
Utilizing technology to enhance teaching and learning	47.88
Implementing small group instruction	81.82
Ensuring a supportive and inclusive learning environment	29.70

Professional Development Needs

To address the reading loss faced by students, it is also important to focus on teachers' professional development. This will enable them to implement effective strategies to overcome students' reading loss. The results presented in Table 6 illustrate the needs for professional training programs reported by the respondents for both online teaching and improving the teaching of reading. Among the required professional development needs, designing reading activities and creating supporting materials, implementing differentiated instruction, and assessing students' reading levels and providing targeted instruction topped the list. The majority of teachers also emphasized the need for training in establishing strong partnerships with parents. This was reinforced by the interview data, in which almost all teachers stated that it was essential for parents to receive training in order to guide their children in online learning.

Table 6

Professional Development Required by Arabic Language Teachers

Professional development needs (multiple choices)	%
Implementing technology in Arabic language instruction	51.52
Assessing students' reading levels and providing targeted instruction	90.30
Implementing differentiated instruction	90.91
Using interactive and engaging teaching methods	78.79
Creating a supportive and inclusive learning environment	67.88
Designing reading activities and supporting materials	92.12
Promoting critical thinking and comprehension skills	16.97
Utilizing online resources and digital platforms	23.64
Establishing strong partnerships with parents	77.58

Discussion

This study explored reading loss and examined the challenges contributing to learning loss due to the shift to online learning during the COVID-19 pandemic, as reported by Arabic language teachers in the UAE. Teachers reported an evident and significant extent of reading loss, as the majority of their students were at least six months behind their expected reading level as required by the curriculum. Furthermore, many teachers did not discover this issue until in-person learning resumed. Most of the major reading loss areas identified by this research are consistent with the literature (Jafarpour, 2014; Setiyadi et al., 2016; Vojoudi et al., 2017), although Arabic language teachers considered reading motivation to be a less significant area of reading loss.

Teachers expressed concerns about online learning due to the limited opportunities for students to engage in discussions and participate in interactive activities that promote language development and reading comprehension. Some specific areas of concern regarding Arabic reading loss included a decline in students' phonemic awareness and reading fluency and skills, a disparity in curriculum requirements, and an increased learning loss among students from lower economic backgrounds, each of which resulting in a grater number of students requiring extra assistance. These findings are consistent with those of Wahyudi (2021), who demonstrated that learning loss caused by reduced interaction between students and teachers was a significant negative outcome of the pandemic, and with the work of Zhdanov et al. (2022), who identified that learning loss due to inadequate online learning mechanisms caused many students to lag behind in the curriculum. Rahmawati and Febriani (2021) produced similar findings, linking learning loss to the interruption in communication between teachers and students during the pandemic. Overall, the survey and interview data gathered by this research indicate that in-person education prevails over online learning, especially in the context of language learning. The shift to online learning has resulted in limited opportunities for students to engage in extensive reading, which is crucial for developing vocabulary, comprehension skills, and overall language proficiency.

As a result of school closures and the shift to online learning, teachers reported having to deal with a series of challenges. The remote nature of online learning and the lack of face-to-face interactions make it difficult for teachers to provide individualized support and feedback. The absence of structured reading activities and assessment tools has made it challenging for Arabic language teachers to monitor and evaluate students' progress in reading. Other notable challenges reported by the sample of teachers in this study included low student-teacher interaction, limited student motivation, and low parental engagement. These findings support those of Al-Assaf (2021), Haron and Rakami (2021), Kerras and Essayahi (2022), and Rahmawati and Febriani (2021), who all indicated that conducting online learning posed a challenge for teachers and they found it difficult to provide suitable feedback to students. Together, the current findings align with existing literature, highlighting that the transition from conventional in-person learning to online learning was an unprecedented event that presented substantial challenges.

Additionally, our findings illustrate that much effort is still needed to implement online education in UAE schools. Successful transition to virtual learning environments requires not only systemic changes in infrastructure that make high-quality online learning resources more widely available, but also changes in perspectives within schools and among parents about how education should be implemented. A previous study examining the reading achievement of 4th graders in the UAE highlighted the important role of self-efficacy, extrinsic motivation, and the home literacy environment in influencing student reading performance (Yang,

Badri, Al Rashedi, & Almazroui, 2018). Undoubtedly, the lack of suitable online learning platforms and limited opportunities for student-teacher interaction, coupled with inadequate school support and insufficient parental involvement, have contributed to the decline in educational processes and outcomes.

The results of this study provided insight into how teachers implemented strategies to overcome the challenges posed by online learning during the pandemic. For example, teachers created interventions based on data, learned tactics from other colleagues, and extended school days. These findings support those of Al-Assaf (2021), who identified several strategies for addressing learning loss, including goal planning, using diverse teaching methods, enhancing motivation, and assisting students in utilizing online learning. Al-Assaf (2021) postulated that learning loss could be mitigated through the implementation of effective strategies, though it was acknowledged that addressing learning loss is a challenging task. Moreover, Kasradze and Zarnadze (2021) also suggested that teachers must adapt to new circumstances and transition to new teaching models, and that they need technical and digital competencies to carry out effective online teaching.

Conclusions and Recommendations

The potential long-term effect of reading loss experienced by school-age children is a concerning impact of the COVID-19 pandemic. This research aimed to explore the topic of reading loss and the low resumption of in-person teaching during the pandemic from the perspective of primary-grade teachers. It also sought to identify the strategies that teachers have been implementing to mitigate the impact of transitioning to online learning. A survey conducted with Arabic language teachers in the UAE revealed that, despite the merits of online education, structural changes to educational paradigms and approaches are needed for successful online learning.

To address the student reading loss experienced by Arabic language teachers in the UAE during COVID-19, several potential solutions have been identified. Firstly, it is essential for Arabic language teachers to effectively integrate the four language skills—listening, speaking, reading, and writing—into the curriculum. By integrating these skills, teachers can create a more holistic and immersive learning experience for students. To achieve this, Arabic language teachers should receive training on how to design reading activities that go beyond basic comprehension and promote critical thinking skills. Teachers can implement activities that require students to analyze and interpret texts, make connections to their own experiences, and evaluate the credibility of information.

Secondly, priority should be given to teacher training and professional development in order to equip Arabic language teachers with the necessary skills and knowledge to effectively teach reading online. Relevant teacher training programs may include training on effective online teaching strategies specifically tailored for reading instruction. These may involve techniques for promoting active engagement and interaction in virtual classrooms, incorporating various types of reading activities and assessments, and utilizing technology tools and multimedia resources to enhance reading comprehension, as well as providing guidance on adapting and modifying traditional reading instruction strategies for online delivery. These measures would facilitate a smooth transition towards fully online or hybrid education models, if necessary.

Thirdly, to ensure that students achieve reading outcomes and master basic skills, it is encouraged for teachers to collaborate in developing targeted, focused strategies. Greater flexibility in curriculum and assessment delivery is needed, with teachers focusing on the most significant themes in the curriculum and essential learning outcomes. This may involve altering the balance between depth and breadth of the curriculum.

A modified curriculum plan may be necessary, with lengthier blocks to address missed learning requirements and topics. Catch-up courses may also become necessary. Teachers could divide students based on their learning gaps in order to attend to their specific needs more closely. Additional instructional time could be allocated in person or virtually. Principals may need to hire expert teachers to compensate for lost learning and may consider utilizing retired teachers to enhance their capacity to conduct "extra-time" interventions. Teachers should implement regular assessment and monitoring of students' reading skills and maintain student interest by using online learning and reading platforms, with student online collaboration and personalized support being more widely employed.

Another proposed solution is to integrate interactive and engaging online reading platforms and applications that can offer students a variety of texts and activities to improve their reading skills. Teachers can leverage various online resources, such as interactive reading websites and educational applications, to provide students with captivating reading materials and enhance their reading instruction.

Lastly, creating a wider, more supportive and collaborative learning environment, where teachers establish an inclusive and supportive classroom, can help foster a sense of community and collaboration among students. This encourages peer-to-peer learning and fosters a strong home-school connection, which is crucial in mitigating reading loss.

Declaration of Conflicting Interests

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