PISA 2018: EXPLORING THE ATTITUDES AND PRACTICES OF JORDAN'S STUDENTS AND SCHOOLS TOWARDS READING

April 2022

QUEEN RANIA
FOUNDATION
مؤسسة الملكة رانيا

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ACKNOWLEDGEMENTS

SUGGESTED CITATION

Al-Atari, S., Ghawi, G. (2022). PISA 2018: Exploring The Attitudes and Practices of Jordan's Students and Schools Towards Reading. Queen Rania Foundation.

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EXECUTIVE
SUMMARY

This paper, developed as one of the background papers to inform Jordan's National Literacy Strategy, explores data from the Organization for Economic Cooperation and Development's (OECD) Program for International Student Assessment (PISA) for the year 2018, with a focus on reading literacy scores in Jordan. PISA defines reading literacy as "understanding, using, reflecting on and engaging with written texts, in order to achieve one's goals, develop one's knowledge and potential, and participate in society (OECD, 2012; p.1)".[1]

This paper focuses on data around the reading activities and resources students are exposed to in Jordan as well as their attitudes and self-concept towards reading. The key findings of the analysis are highlighted below, categorized into findings at the school-level, classroom- and teacher-level, and student-level. In the executive summary, reference will be made to students and schools in Jordan, but it is important to note that this is specific to Jordan's 15-year-old students and their schools.

School level findings

The school-level data paints an overall positive picture of schools in Jordan, with policies in place to structure language learning, sufficient lesson time and the implementation of some extracurricular activities that can encourage language learning outside of the classroom.

1. Most schools in Jordan seem to have policies to structure literacy learning. Principal reports show that implementation of standardized policies, including a curriculum and supplementary materials, for language subjects was common across most schools (85%). A sizable proportion of principals reported doing so due to district/ministry policies.

2. Average Arabic language lesson time in Jordan was 4.4 hours per week, which was longer than the average OECD language lesson time (at 3.7 hours per week). There was no relationship between lesson time and student scores in Jordan; longer lessons were not associated with higher student scores.

3. More than half of principals reported that their schools offer students a debate club or debating activities, which may support in promoting their linguistic skills. However, there is a missed opportunity to promote literacy through other means; only 33% of principals reported their schools offered book clubs[2] to students and fewer than 40% of principals reported that their school collaborates with local newspapers.

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1 OECD. (2014). *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014)* : *Student Performance in Mathematics, Reading and Science (Summary),* OECD Publishing, Paris, https://doi.org/10.1787/efaa764e-en.
2 a book club is an activity that takes place at a predetermined time during the school week in which students gather to discuss and express their opinions on a book they've read.

Classroom-and teacher-level findings

Students seem to be learning in classrooms that are motivating and encouraging. Student reports suggest their teachers provide them with opportunities to express their opinions, give them feedback and adapt instruction to meet student needs. However, other practices may not be as conducive to learning, with the majority of students reporting limited practice in reading Arabic texts.

4. More than 60% of students reported that their teachers took actions to ensure students are engaged and encouraged to participate in class. Additionally, 80% of students believed teachers offer them a comfortable environment to express themselves and their ideas.

5. Students who reported that their teachers provide engaging, motivating and comfortable class environments scored higher on the reading domain.

6. More than half of students reported that their Arabic teachers often adapted lessons to class and individual requirements. This appeared to support students in their literacy development since students who reported that their teachers adapt lessons to class requirements generally scored higher on the reading domain.

7. While most students reported receiving feedback from their teachers, nearly 20% reported never receiving any form of feedback.

8. Student reports suggest they may not be reading enough for their Arabic language lesson, with four in every five students reporting that the longest text they ever had to read was 10 pages or fewer.

9. Students were more likely to report taking part in reading-related activities that may be considered traditional. More than eight in 10 students reported that their teachers ask them to answer questions about the book or the chapter after reading it.

Student level findings

Student-level data was somewhat contradictory. Most students believed they were good readers and that they read fluently, but many also reported struggling with answering questions about texts. However, the data suggest that students have metacognitive abilities relating to some reading tasks, which is positive. Perceptions towards reading were also inconsistent, with many students agreeing that reading is one of their favorite subjects yet also agreeing that they only read to get information they need. Additionally, a quarter of students reported never reading for enjoyment. Finally, the results in students' ability to utilize technology for reading and writing were also somewhat contradictory.

10. More than eight in 10 students believed they are good readers, despite students in Jordan scoring well below the OECD average on the reading domain. Female students had higher reported self-concept in reading than their male peers, and this gap was more pronounced across public school students.

11. Students seemed to have metacognitive skills regarding strategies used to summarize,

understand and memorize texts. This was evident as students were most likely to give the highest usefulness ratings to strategies that experts deemed as the most effective in tackling summarizing, understanding and memorizing texts.

12. Perceptions towards reading were contradictory; while most students agreed that reading is one of their favorite hobbies, many also reported only reading to get information they need. Students who had less favorable views towards reading achieved lower average scores on the reading domain.

13. A quarter of students reported they do not read for enjoyment, and the majority of those who did (33%), read for 30 minutes or less per day. Students who reported spending more time reading had higher average scores on the reading domain.

14. Many students seemed to be well equipped with using technology to reach content, with six in 10 of students reporting that they read the news online or searched for information online several times a day or week. However, other results were worrying; 20% of students did not even know what emails were.

Findings overall

Taking the findings from the school-, classroom- and teacher, and student-levels, it is evident that there are some promising practices that can support literacy learning. These include the implementation of set policies for language lessons, having sufficient lesson time, adaptive teaching practices, provision of feedback and learning in engaging classrooms. However, other findings suggest that more can be done to promote reading in the classroom as well as in students' homes. For example, too few students reported reading more than 10 pages of their Arabic language lesson, or reading for enjoyment. Additionally, some students reported not knowing what reading emails was. When looking at students' reading achievement on PISA overall, it is evident that students are not meeting the expected standards, with 40% of students not reaching minimum proficiency levels. Are the positive practices currently implemented not sufficient to encourage language learning? What more needs to be done to advance reading literacy? Considering this paper was descriptive in nature, it is difficult to ascertain the factors that determine literacy achievement. This will be further explored in Ghawi and Dahdah (2022).[3]

Ghawi, G., Dahdah, S. (2022). Determinants of student achievement on PISA 2018: the case of Jordan's public school students. Queen Rania Foundation – Amman. Additionally, it is important to note that the conclusions of this report are drawn from self-reported data from principals and students. As a result, the data reflects their perceptions of what is happening in schools and classrooms and should be interpreted with this in mind.

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3   Ghawi, G., Dahdah, S. (2022). Determinants of student achievement on PISA 2018: the case of Jordan's public school students. Queen Rania Foundation – Amman.

BACKGROUND

The ability to read with comprehension contributes to success in formal education (Niklas, Cohrssen & Tayler, 2016).[4] Reading literacy is a prerequisite to becoming successful in not only schooling, but life (Kirsh et al., 2002).[5] The ability to understand and comprehend language at early stages is of extreme importance for future reading proficiency (Niklas et al., 2016).[6] This puts pressure on schools, teachers, ministries and parents to encourage reading at school and home. Jordan has been achieving below international standards on reading literacy for several years.[7]

Many students do not even reach minimum proficiency levels in international reading assessments (40%).[8] It is essential to understand the reasons underpinning this underachievement and the Arabic language learning context in schools, to find ways to advance student learning. The Program for International Student Assessment (PISA), an international assessment administered to 15-year-olds worldwide by the OECD triennially, offers a wealth of data to better understand students' reading achievement. The assessment typically explores students' literacy in reading, math and science, with a focus on one of the domains more heavily each cycle. The latest 2018[9] cycle focused on reading literacy, which will allow for a thorough exploration of the nature of reading activities in Jordan's schools, classrooms and in students' daily lives.

4   Niklas, F., Cohrssen, C., & Tayler, C. (2016). The Sooner, the Better: Early Reading to Children. *SAGE Open, 6*(4). https://doi.org/10.1177/2158244016672715

5   Kirsch, I., De Jong, J., Lafontaine, D., McQueen, J., Mendelovits, J., & Monseur, C. (2002). Reading for change. Performance and engagement across countries. Results from PISA 2000. Retrieved from: https://www.oecd.org/education/school/programmeforinternationalstudentassessmentpisa/33690904.pdf

6   Niklas, F., Cohrssen, C., & Tayler, C. (2016). The Sooner, the Better: Early Reading to Children. *SAGE Open, 6*(4). https://doi.org/10.1177/2158244016672715

7   Ghawi, G., Dahdah, S. (2020). PISA 2018: Exploring Jordan's performance. Queen Rania Foundation. Retrieved from: https://www.qrf.org/sites/default/files/2020-10/pisa_2018_exploring_jordans_performance_in_the_2018_cycle_-_qrf.pdf

8   Ibid.

9   Data from the 2018 PISA cycle was released on the OECD website in December 2019.

THIS PAPER

This paper was developed as part of the deliverables submitted to Jordan's National Literacy Strategy task force, to assess the system's capacity to deliver literacy learning outcomes. It builds off previous analysis the Queen Rania Foundation has conducted on the PISA 2018 data,[10] which explored student performance in Jordan's schools in the three domains of PISA (reading, mathematics, and science), compared to past performance in previous rounds (2006-2018). Student achievement by student and school characteristics was also explored.

This paper aims to explore the nature of reading activities in Jordan's schools and classrooms, the learning environment in Arabic language classrooms in addition to students' perceptions of reading and their self-concept. This is done through descriptive analysis on the publicly available PISA data obtained from the OECD website.[11][12] Student scores were also explored across these different variables to better understand the relationship between literacy practices, perceptions and performance. As such, the following research questions around school level, classroom/ teacher level and student level data were explored:

School-level

1. Are there school level policies or initiatives that promote reading in Jordan's schools?

Classroom and teacher level

2. What is the nature of reading activities taking place in classrooms in Jordan?
3. What are common practices of Arabic language teachers, as reported by students?

Student-level

4. What is the nature of students' self-concept towards their own reading abilities?
5. Do students have meta-cognitive awareness as it relates to strategies to tackle reading-related tasks?
6. What are students' general perceptions towards reading?
7. What type of reading activities do students conduct outside of school?

Cross-cutting

8. How do student scores vary based on the aforementioned?

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10 Ghawi, G., Dahdah, S. (2020). PISA 2018: Exploring Jordan's performance. Queen Rania Foundation. Retrieved from: https://www.qrf.org/sites/default/files/2020-10/pisa_2018_exploring_jordans_performance_in_the_2018_cycle_-_qrf.pdf

11   https://www.oecd.org/pisa/data/2018database/

12   The final paper will explore the determinants of reading achievement, building off of papers 1 and 2.

THE PISA 2018
JORDAN SAMPLE

Nearly nine-thousand 15-year-old students were sampled for the 2018 PISA cycle from public and non-public schools across the Kingdom. Non-public schools included private and UNRWA schools. Seventy-nine percent of sampled students were in public schools and 21% were in non-public schools (Table 1).[13] There was a roughly balanced gender split in participation (51% female), with an average student age of 15.9 years.

In the findings section of this paper, reference will be made to students and schools in Jordan, but it is important to note that this is specific to Jordan's 15-year-old students and their schools.

TABLE 1 : DISTRIBUTION OF STUDENTS SAMPLED ON PISA 2018, DISAGGREGATED BY SCHOOL TYPE AND STUDENT GENDER

		Percent
School type	Public	79%
	Non-public	21%
Gender	Male	49%
	Female	51%
Total number of students		**8,963**

13   Non-public schools include both private and United Nations Relief and Works Agency for Palestinian Refugees (UNRWA) run schools. The data set does not contain further information that allows for the further disaggregation of non-public schools into the aforementioned categories.

SCHOOL LEVEL FINDINGS

Are there school-level policies or initiatives that promote reading in Jordan's schools?

Most schools in Jordan have set policies that support the structuring of literacy learning, such as the implementation of standardized policies for reading subjects.

Implementation of standardized policies for reading subjects was common across most schools in Jordan. Standardized policies included having a set curriculum in addition to instructional, staff development and training materials. Only 15% of principals reported a lack of standardized policies for reading subjects in their schools (Figure 1). Most schools have such policies as they are mandatory due to ministry policies. Three in five principals who reported having standardized policies, reported implementing such policies as they are mandatory based on district/ministry policies, whereas nearly two in five reported that it was based on their school's own initiative (Figure 1).

FIGURE 1 : PRINCIPAL REPORTS ON THE IMPLEMENTATION OF STANDARDIZED POLICIES FOR READING SUBJECTS

15%

85%

37%

63%

Yes   No

Yes, this is mandatory, e.g. based on district or ministry policies

Yes, based on school initiative
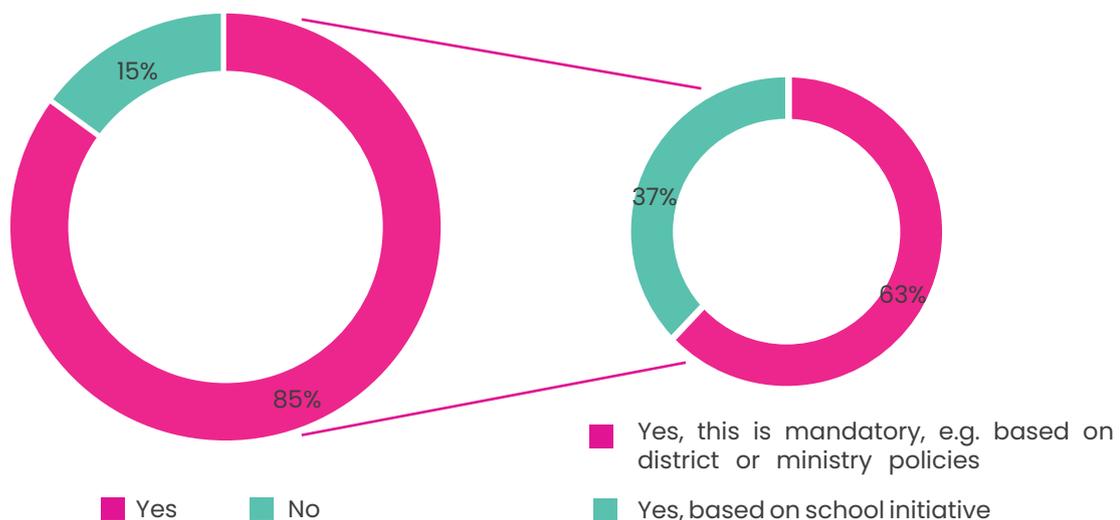
Non-public school principals were more likely to report having standardized policies for reading subjects compared to their public school counterparts; 93% compared to 83%, respectively (Figure 2). Most public school principals reported having standardized policies as they are mandatory, whereas non-public school principals were more likely to implement them as a result of the school's own initiative.

FIGURE 2 : PRINCIPALS REPORT ON IMPLEMENTATION OF STAN-DARDIZED POLICIES FOR READING SUBJECTS, BY SCHOOL TYPE

	Yes, this is mandatory	Yes, based on school initiative	No
Overall	48%	37%	15%
Public	51%	32%	17%
Non-Public	38%	55%	7%

■ Yes, this is mandatory, e.g. based on district or ministry policies   ■ Yes, based on school initiative   ■ No
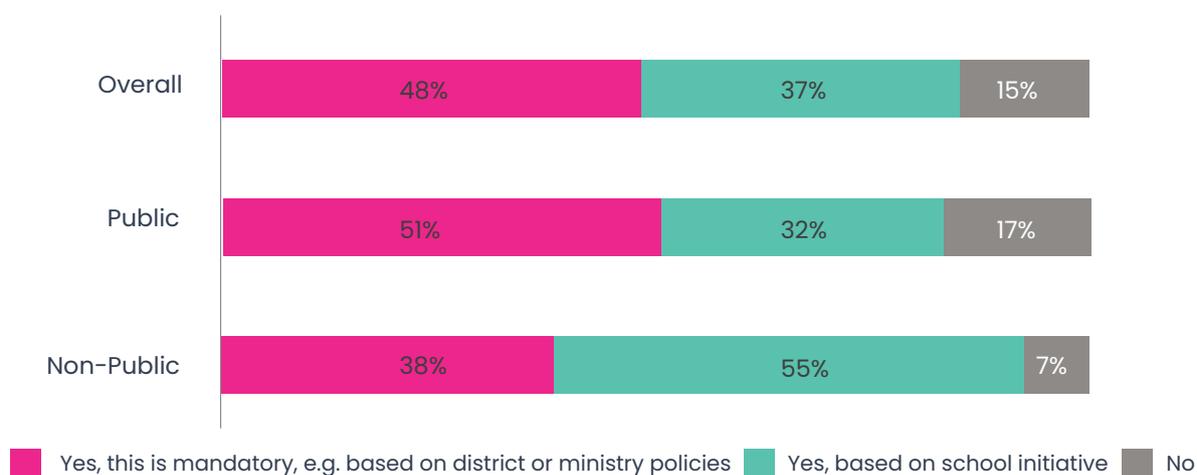
Average Arabic language lesson time appeared to be sufficient and longer than the average OECD language lesson time, but was not associated with student achievement in Jordan.

Average lesson time amounted to 4.4 hours per week (52 minutes per day) according to student reports. This was slightly longer than the average language lesson time in OECD countries, which was equal to 3.7 hours per week (OECD, 2020).[14] A correlation revealed there was no relationship between lesson time and average reading scores in Jordan. Longer lesson time may not necessarily mean more teaching time or higher quality teaching. These results may indicate that teachers may not be using classroom time effectively, and/or may not have the skills or knowledge to implement quality teaching practices in class, despite having the time to do so. Indeed, a 2018 national teacher survey in Jordan showed that a large proportion of lesson time is not spent on teaching and learning activities. Teacher reports showed an average of 58% of lesson time was spent on teaching and learning compared to an average of 78% in OECD countries (Ghawi & AlQbeilat, 2020).[15] A large proportion of lesson time was dedicated to keeping order in the classroom (25%) and administrative tasks (17%). To adopt quality teaching practices, it is important for teachers to capitalize on classroom time to implement them (OECD, 2020).[16] Teacher professional development focused on the implementation of high-quality teaching practices and using lesson time effectively should be prioritized.

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14 OECD (2020), PISA 2018 Results (Volume V): Effective Policies, Successful Schools, PISA, OECD Publishing, Paris, https://doi.org/10.1787/ca768d40-en

15   Ghawi, G., AlQbeilat, N. (2020). Jordan's Teachers in a Global Landscape. Ministry of Education – Queen Rania Foundation: Amman. Retrieved from: https://www.qrf.org/sites/default/files/2021-01/jordans_teachers_in_a_global_landscape.pdf

16 OECD (2020), TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en.

While many principals reported their schools offered debating clubs, which can improve students' literacy, there are other potential avenues that can be explored to engage students' learning outside the classroom.

More than half of principals reported that their schools offer students extracurricular activities that promote linguistic skills, such as a debating club or debating activities (Figure 3). These results are positive, as debating activities have various benefits, of which are improving students' literacy, critical thinking and communication skills (Akerman & Neale, 2011).[17] In addition, 40% of principals reported that their schools collaborated with local libraries. Such collaborations may be a good option for schools that do not have a library and face resource shortages. However, this was not necessarily reflected in the Jordanian context; principals who reported that the school's capacity is hindered by lack of educational materials (textbooks, IT equipment, library, or laboratory material) "to some extent" or "a lot" were less likely to report collaborating with local libraries. Less resourced schools may be located in more disadvantaged areas of Jordan, where local libraries may be unavailable, which could explain these findings.

Furthermore, only 33% of principals reported their schools offer book clubs (Figure 3). Not only would book clubs assist in the educational development of a student, but they can also enhance relationships among peers (Petrich, 2015).[18] Collaboration with local newspapers was the least commonly reported school-based initiative. Fewer than two in 10 principals reported that their school collaborates with local newspapers.

Non-public school principals were more likely to report that their schools offered initiatives and activities that promote linguistic skills compared to their public school counterparts. This was especially true regarding collaborations with local libraries. Fifty-nine percent of non-public school principals reported their schools collaborated with local libraries, as opposed to 37% of public school principals (Figure 3).

Students whose principals reported that their schools offered such extracurricular activities had higher average reading scores. While this may indicate that having these initiatives improves student learning, it may also be a function of the school's socioeconomic background. Well-resourced schools, with better infrastructure, may be better positioned to provide such activities, given the dependency on spaces and materials.

17   Akerman, R., & Neale, I. (2011). Debating the Evidence: An International Review of Current Situation and Perceptions, http://debate.uvm.edu/dcpdf/ESU_Report_debatingtheevidence_FINAL.pdf
18   Petrich, N. (2015). Book Clubs: Conversations Inspiring Community. I.E.: Inquiry in Education, 7(1), 4.

FIGURE 3: PRINCIPAL REPORTED INITIATIVES THAT MAY DEVELOP STUDENTS' LINGUISTIC SKILLS, ON A NATIONAL LEVEL AND BY SCHOOL TYPE (PUBLIC AND NON-PUBLIC)[19]
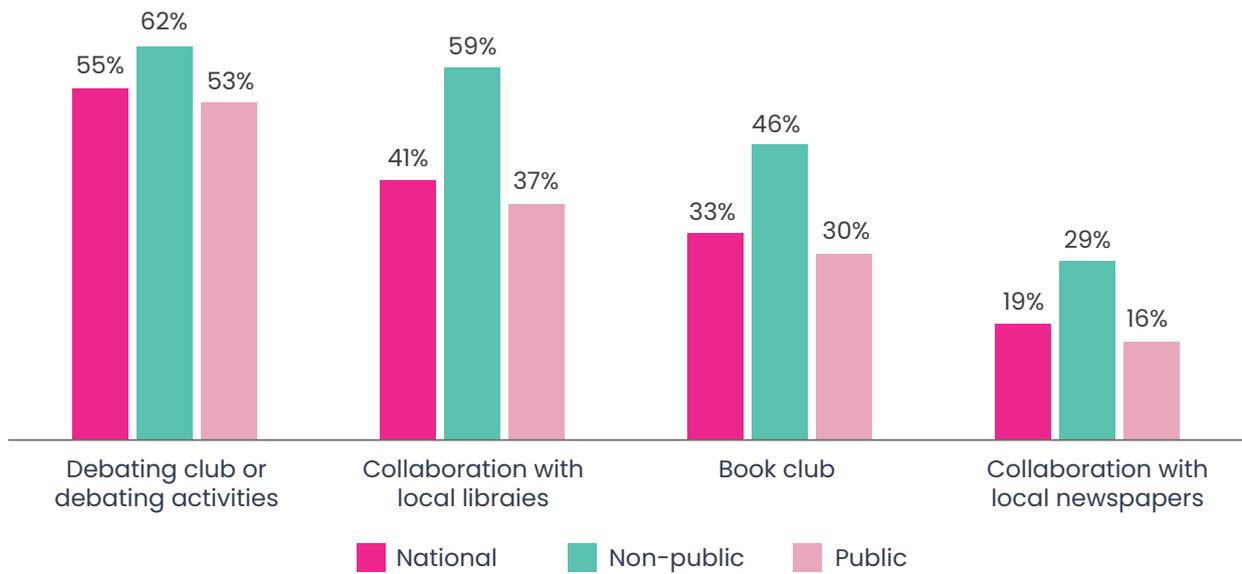
19 It is worth noting that the following activities: debating club/debating activities, collaboration with local libraries, book clubs, and collaboration with local newspapers, were chosen by the authors of this paper as initiatives that can develop students' linguistic skills.

CLASSROOM AND TEACHER LEVEL FINDINGS

WHAT IS THE NATURE OF THE READING ACTIVITIES TAKING PLACE IN CLASSROOMS IN JORDAN?

Reading may not be thoroughly embedded in classroom practices.

Students may not be reading enough for their Arabic language lesson, with four in five students reporting that the longest text they ever had to read was 10 pages or fewer (Table 2). In addition, fewer than one in 10 students reported having to read between 11 and 50 pages, and only five percent of students reported reading more than 100 pages.

Exploring the number of pages read against students' average scores yields surprising results. In some instances, the expected trend is observed between the amount of pages read and student achievement; students who read more had higher average reading scores. For example, students who reported reading one page or fewer had an average score of 411, compared to an average score of 442 among students who reported reading between two and 10 pages. Additionally, students who reported reading between 11 and 100 pages had lower average scores than students who reported reading between 101 and 500 pages. In other instances, the opposite trend is observed; students who reported reading fewer pages had higher average scores on the reading domain than their peers who reported reading more (Table 2). For example, students who reported reading between two and 10 pages scored an average of 442, while those who reported reading between 51-100 pages scored an average of 391.

It is difficult to pinpoint the reason behind these results. One potential explanation may be that teachers assign under-achieving students with more reading tasks to improve their literacy skills. Alternatively, the level of text difficulty may not match students' actual abilities. Therefore, although students may be required to read long texts, they may not be comprehending them. This may have potential implications on the texts students are required to read for school and teaching practices. As such, it is worth exploring the level of texts students are required to read and if they match their abilities, so that teachers can teach at the right level to different groups of learners in the classroom and provide appropriate materials and tasks to lead to learning gains among students (Education Endowment Foundation, 2018).[20]

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20   Education Endowment Foundation. (2018). Within-class attainment grouping. Teaching and Learning Toolkit. Retrieved from: https://educationendowmentfoundation.org.uk/

TABLE 2 : STUDENT REPORTS AND AVERAGE READING SCORES BY LONGEST NUMBER OF PAGES THEY EVER HAD TO READ FOR THE ARABIC LANGUAGE LESSON

Longest piece of text ever had to read	Percent of students	Average reading scores
One page or fewer	26%	411
Between 2 and 10 pages	54%	442
Between 11 and 50 pages	8%	389
Between 51 and 100 pages	6%	391
Between 101 and 500 pages	3%	429
More than 500 pages	2%	377

Female students in non-public schools were slightly more likely to report having read more pages (more than 50 pages) compared to their male counterparts; 18% compared to 12%. On the contrary, male students in public schools were twice as likely to report reading longer texts compared to their female counterparts; 15% compared to seven percent (Figure 4).

FIGURE 4 : STUDENT REPORTS REGARDING THE LONGEST NUMBER OF PAGES THEY EVER HAD TO READ FOR THE ARABIC LANGUAGE LESSON, BY SCHOOL TYPE AND STUDENT GENDER
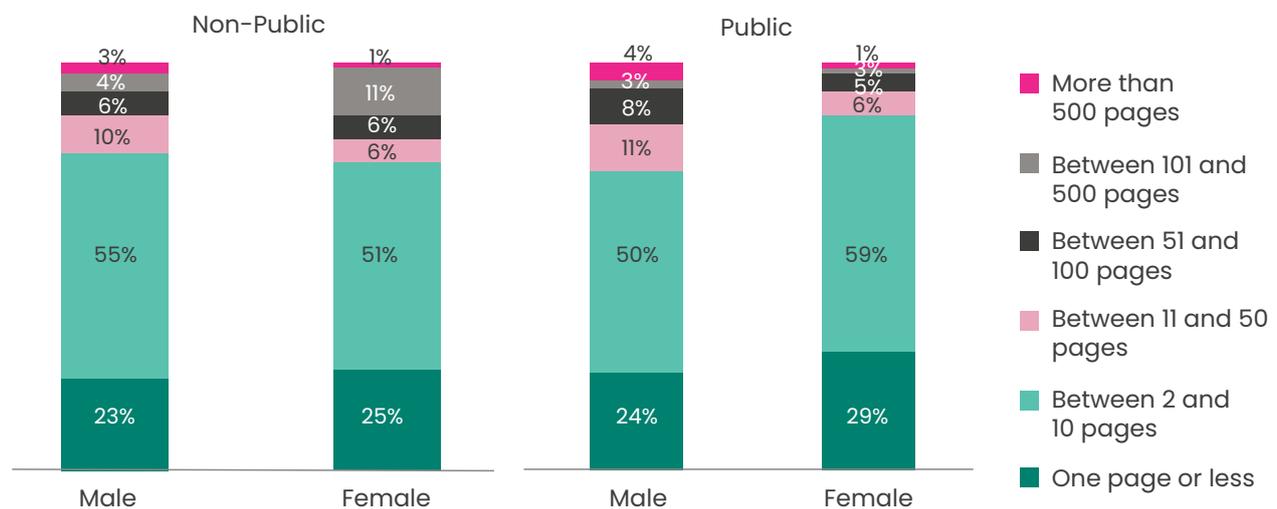
Students seem to be exposed to a variety of reading content for school to varying degrees.

Students were most likely to report reading text that includes diagrams/maps and fiction during the month prior to the survey, and less likely to report reading digital texts including links. Two in five students reported reading text that includes diagrams/maps and fiction "many times", as opposed to 25% who reported reading digital texts including links "many times" (Table 3).

Texts appear in either continuous formats, meaning that they are either structured in sentences

and paragraphs, or non-continuous formats in lists, tables, graphs and diagrams (Kirsch and Mosenthal, 1990).[21] Variation in text format in the classroom can ensure students' ability to comprehend and digest different texts and sources of information, and may aid in making the learning process more engaging for learners.

Across public and non-public schools, student reports suggest male students were reading a variety of content more frequently compared to their female counterparts. This gap was especially pronounced for reading text that includes diagrams/maps; more than four in 10 male students reported reading them "many times" compared to three in 10 female students. Although male students reported reading a variety of texts often, these practices did not seem to translate into higher achievement; male students scored an average of 51 points below their female counterparts on reading.

Surprisingly, it is observed that students who reported more frequent reading of texts that included diagrams/maps achieved lower average scores on reading than those who did not read as frequently. Those who reported reading such texts many times achieved an average of 406, while those who reported not reading such texts at all achieved an average of 435 (Table 3). Similar trends were observed for students who reported more frequent reading of texts that included tables or graphs or digital links. Reading texts may not necessarily signify that students are comprehending them. It may be beneficial for future rounds of PISA to explore the frequency of reading these texts, in addition to the extent to which students comprehend them.

TABLE 3 : STUDENT REPORTED FREQUENCY OF READING SPECIFIC CONTENT DURING THE LAST MONTH FOR SCHOOL, AND THEIR AVERAGE READING SCORES

During the last month, how often did you have to read for school:		Not at all	Once	Two to three times	Many times
Texts that include diagrams or maps	Average reading score	435	423	434	406
	Percent of students	25%	18%	19%	38%
Fiction (e.g., novels, short stories)	Average reading score	425	423	422	423
	Percent of students	18%	19%	25%	38%
Texts that include tables or graphs	Average reading score	434	415	428	413
	Percent of students	30%	21%	22%	28%
Digital texts including links	Average reading score	433	422	425	408
	Percent of students	41%	18%	17%	25%

Students were more likely to report taking part in reading-related tasks that may be considered traditional.

The most common task students reported completing after reading a book or chapter was answering questions about it; with more than eight in 10 students reporting doing so. Additionally,

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21   Kirsch, I. and P.B. Mosenthal (1990), "Exploring document literacy: Variables underlying the performance of young adults", *Reading Research Quarterly, 25*(1) Wiley, Hoboken, NJ, page 5-30.
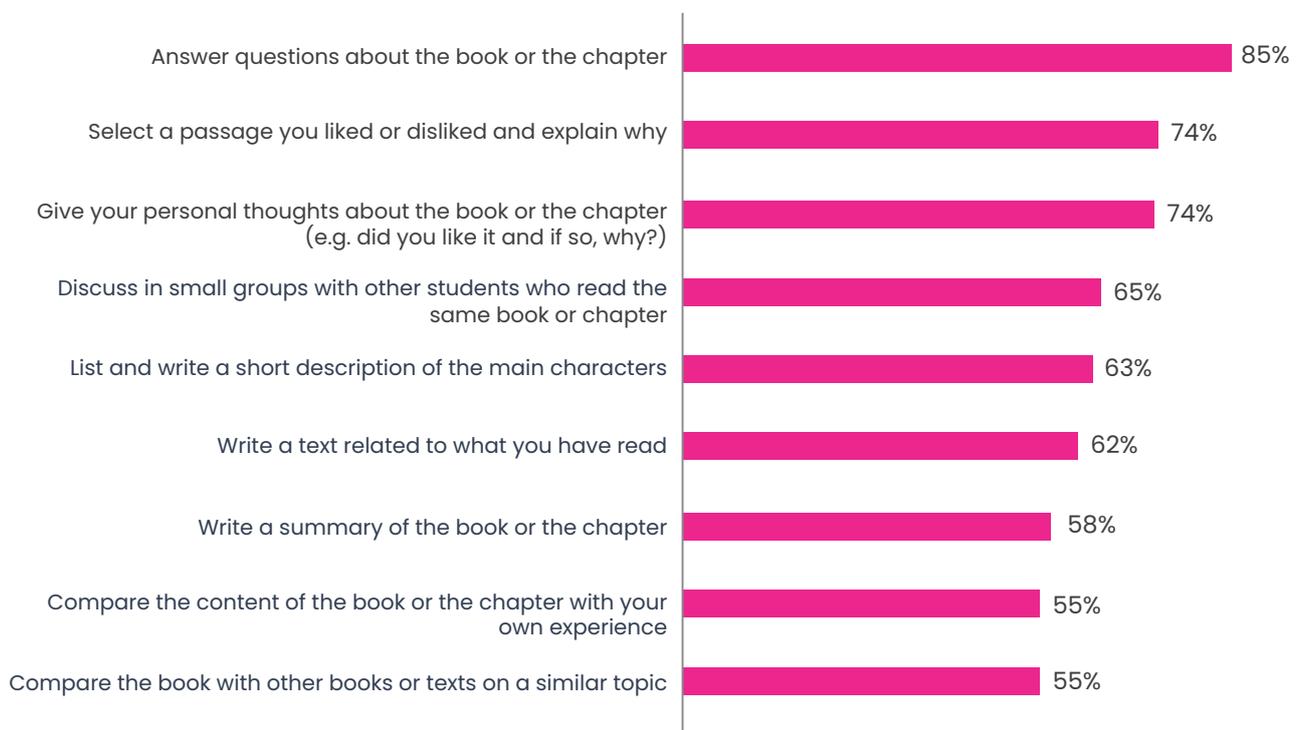
74% of students reported their teachers encouraged them to select a passage they liked/ disliked to explain why, as well as give their personal thoughts about the book or the chapter. The aforementioned activities may be considered more traditional compared to the least common activities carried out by students. For example, a comparative approach was the least common; 55% of students reported comparing the content of the book or the chapter with the student's own experience, or comparing the book with other books/texts on a similar topic (Figure 5). Research emphasizes the importance of using non-traditional (progressive) learning techniques. Progressive learning encourages students to learn based on experience and construct meaning from that experience rather than normal classroom activities (Kamii, 1984).[22]

Students who reported taking part in traditional reading activities had higher average reading scores compared to students who did not partake in such activities. Meanwhile, students who reported participating in less traditional reading activities achieved lower average scores on reading than their counterparts who did not participate in such activities. If traditional learning approaches are used in effective ways, they may be beneficial for student learning. For example, the question-and-answer approach, which was common among Jordan's teacher practices, can improve quality education if questions are asked in an effective way that can encourage student's critical thinking (Tofade, Elsner, & Haines, 2013).[23]

FIGURE 5 : PERCENT OF STUDENTS WHO REPORTED THAT THEIR TEACHERS ENCOURAGED THESE READING RELATED ACTIVITIES

Activity	Percent
Answer questions about the book or the chapter	85%
Select a passage you liked or disliked and explain why	74%
Give your personal thoughts about the book or the chapter (e.g. did you like it and if so, why?)	74%
Discuss in small groups with other students who read the same book or chapter	65%
List and write a short description of the main characters	63%
Write a text related to what you have read	62%
Write a summary of the book or the chapter	58%
Compare the content of the book or the chapter with your own experience	55%
Compare the book with other books or texts on a similar topic	55%

22   Kamii, C. (1984). Autonomy: The Aim of Education Envisioned by Piaget. *The Phi Delta Kappan, 65*(6), 410-415. Retrieved from: http://www.jstor.org/stable/20387059

23   Tofade, T., Elsner, J., & Haines, S. T. (2013). Best practice strategies for effective use of questions as a teaching tool. *American journal of pharmaceutical education, 77*(7), 155. https://doi.org/10.5688/ajpe777155

Female students were generally more likely to report taking part in various reading related activities compared to their male counterparts.

Female students were more likely to report being involved in listing and writing a short description of the main characters, discussing in small groups with other students who read the same book/ chapter, giving personal thoughts about the book/chapter, answering questions about the book/ chapter, and selecting a passage they liked/or disliked compared to their male counterparts. For example, a large gap was observed regarding students' selection of a passage they liked/disliked and explaining why; 81% of public school female students reported doing so, compared to 66% of public school males (Table 4).

Males were slightly more likely to report participating in activities that may be considered less traditional. For example, male students were more likely to report being asked to write a summary compared to their female counterparts. Fifty-nine percent and 66% of non-public and public male students reported so, compared to 52% and 51% of their female peers.

TABLE 4 : PERCENT OF STUDENTS WHO REPORTED THAT THEIR TEACHER ENCOURAGED THESE READING RELATED ACTIVITIES, BY SCHOOL TYPE AND STUDENT GENDER

|	Non-Public		Public	
	Male	**Female**	**Male**	**Female**
Answer questions about the book or the chapter	83%	90%	79%	90%
Select a passage you liked or disliked and explain why	69%	76%	66%	81%
Give your personal thoughts about the book or the chapter (e.g. did you like it and if so, why?)	72%	79%	66%	79%
Discuss in small groups with other students who read the same book or chapter	59%	65%	64%	68%
List and write a short description of the main characters	61%	66%	60%	67%
Write a text related to what you have read	59%	61%	63%	62%
Write a summary of the book or the chapter	59%	52%	66%	51%
Compare the content of the book or the chapter with your own experience	55%	51%	58%	54%
Compare the book with other books or texts on a similar topic	54%	55%	59%	52%

WHAT ARE COMMON PRACTICES OF ARABIC LANGUAGE TEACHERS, AS REPORTED BY STUDENTS?

Students seem to be learning in engaging class environments.

Student reports suggest that most teachers took actions to ensure students are engaged and encouraged to participate in class. More than three in five students reported that their teachers practiced the following in most or in all lessons: encouraging students to express their opinion about a text, helping students relate the stories they read to their lives, showing students how the information in text builds on what they already know, and posing questions that motivate students to participate actively (Figure 6). The most common reported practice was teachers posing questions to students (at 72%).

FIGURE 6 : PERCENT OF STUDENTS WHO REPORTED THAT THEIR TEACHERS CARRY OUT THE FOLLOWING PRACTICES
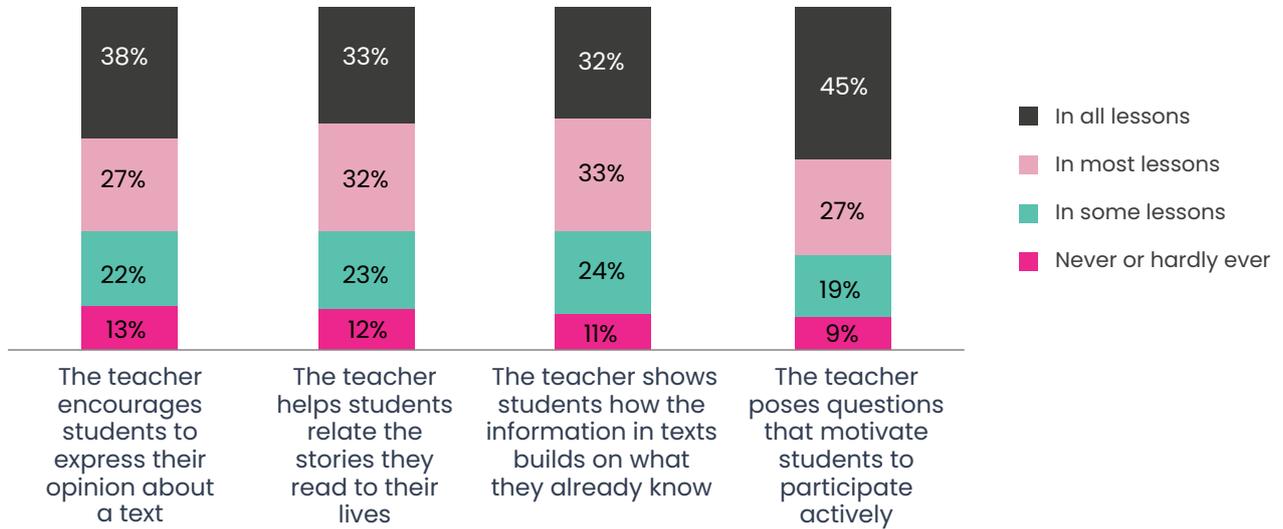
A relationship between students' perceptions of encouraging and motivating teacher practices and reading scores was observed. Students who reported that their teachers provided encouraging and motivating class environments, had higher average reading scores. For example, students who reported that teachers encourage students to express their opinion about a text "in all lessons", scored an average of 431, whereas those who reported "never or hardly", scored an average of 372 (Table 5).

TABLE 5: STUDENT READING ASSESSMENT SCORES BY FREQUENCY OF THE FOLLOWING TEACHER PRACTICES

How often in the [Arabic] language class ...	Average reading scores for students who answered this question with ...			
	Never or hardly	Some lessons	Most lessons	All lessons
The teacher encourages students to express their opinion about a text	372	421	433	431
The teacher helps students relate the stories they read to their lives	403	414	426	432
The teacher shows students how the information in texts build on what they already know	395	419	428	429
The teacher poses questions that motivate students to participate actively	388	416	428	429

The data suggest that female students were more likely to be taught by teachers who encourage and engage them, when compared to their male counterparts.

Female students were more likely to report that teachers encourage them to express their opinion about a text "in most lessons" or "in all lessons" (75% of non-public and 70% of public female

students, compared to 64% of non-public and 58% of public school male students). Additionally, female students were more likely to report that their teachers help them relate the stories they read to their lives (70% of non-public and 68% of public school female students, compared to 65% of non-public and 59% of public school male students) (Table 6).

TABLE 6: PERCENT OF STUDENTS WHO REPORTED THAT THEIR TEACHERS PRACTICE THE FOLLOWING, BY TYPE OF SCHOOL AND STUDENT GENDER

		Non-Public		Public	
		Male	**Female**	**Male**	**Female**
The teacher encourages students to express their opinion about a text	**Never or hardly ever**	15%	6%	21%	7%
	In some lessons	21%	20%	21%	23%
	In most lessons	28%	33%	25%	28%
	In all lessons	36%	42%	33%	42%
The teacher helps students relate the stories they read to their lives	**Never or hardly ever**	11%	9%	16%	10%
	In some lessons	24%	21%	25%	22%
	In most lessons	31%	30%	30%	33%
	In all lessons	34%	40%	29%	35%
The teacher shows students how the information in texts builds on what they already know	**Never or hardly ever**	11%	7%	14%	8%
	In some lessons	22%	23%	23%	26%
	In most lessons	32%	34%	32%	33%
	In all lessons	35%	36%	30%	33%
The teacher poses questions that motivate students to participate actively	**Never or hardly ever**	9%	5%	13%	7%
	In some lessons	15%	17%	19%	20%
	In most lessons	26%	27%	26%	29%
	In all lessons	50%	51%	42%	44%

Most students believed that their Arabic language teachers offered them a comfortable environment to express themselves and their ideas.

Nearly four in five students "agreed" or "strongly agreed"[24] with the statements; "The teacher made me feel confident in my ability to do well in the course", "The teacher listened to my view on how to do things", and "I felt that my teacher understood me" (Figure 7). Female students in public schools were generally more likely to agree with the aforementioned compared to their male peers. Such differences were not observed in non-public schools. Classroom climate has been shown to positively impact student learning outcomes and academic achievement (OECD,

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24   Referred to collectively as "agreed" hereinafter

2009).[25] Indeed, the data generally showed that students who perceived greater support from teachers had higher average reading scores. This was especially true when it came to teachers listening to students' views on how to do things.

FIGURE 7 : STUDENTS' AGREEMENT OR DISAGREEMENT WITH THE FOLLOWING STATEMENTS
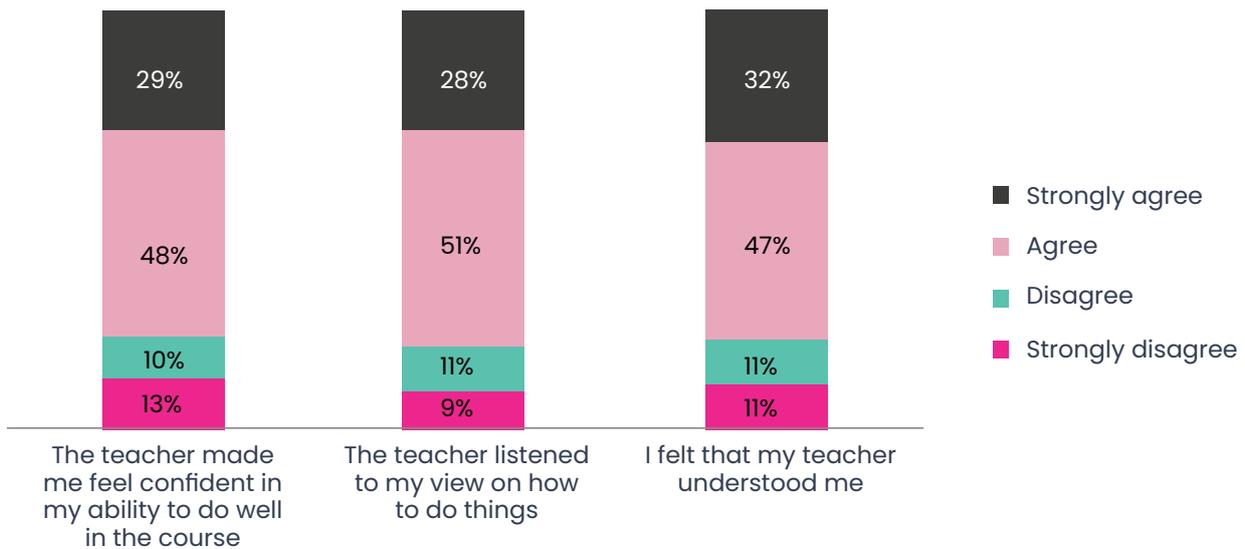
Most students reported that their Arabic language teachers often adapted lessons to class and individual requirements.

More than half of students reported that teachers adapted the lesson to the class' needs and knowledge, provided individual help when a student had difficulties understanding a topic or task, or changed the structure of the lesson on a topic that most students find difficult to understand in many or nearly all lessons (Table 7). These results are positive, as they suggest teachers are implementing adaptive teaching in the classroom, meaning that instruction is tailored to fit learners' different needs. This is opposed to traditional teaching methods, which typically cater to the average student in class (Lafuente, Peterson, Dumont, & Law, 2018).[26] Traditional methods may also be used in a substantial number of Jordan's schools, considering more than a third of students reported their teachers carry out the aforementioned practices "in some lessons" or "never/almost never" (Table 7).

Public and non-public school students seemed to experience adaptive instruction in similar ways. Similarly, no major differences were observed based on student gender.

A relationship between students' perceptions of teachers' adaptive learning practices and reading scores was observed. Students who reported that their teachers adapt lessons to class

25 OECD. (2009). Creating Effective Teaching and Learning Environments: First Results from TALIS. Retrieved from: https://www.oecd.org/education/school/43023606.pdf

26 Peterson, A., Dumot, H., Lafuente, M., & Law, N. (2018). Understanding Innovative Pedagogies: Key Themes to Analyse New Approaches to Teaching and Learning. *OECD working papers*. https://doi.org/10.1787/9f843a6e-en.

and student needs had higher average reading scores (Table 7). For example, students who reported that their teacher adapts the lesson to the class' needs and knowledge in every lesson scored an average of 430, compared to an average of 381 among students who reported that their teacher never does this.

TABLE 7 : STUDENT REPORTED FREQUENCY OF TEACHERS IMPLEMENTING ADAPTIVE TEACHING PRACTICES, AND THEIR READING AVERAGE SCORES

How often in the [Arabic] language class …		Never or almost never	Some lessons	Many lessons	Every lesson or almost every lesson
The teacher adapts the lesson to my class's needs and knowledge	Average score	381	422	435	430
	Percent of students	15%	30%	27%	28%
The teacher provides individual help when a student has difficulties understanding a topic or task	Average score	387	413	427	436
	Percent of students	11%	23%	28%	38%
The teacher changes the structure of the lesson on a topic that most students find difficult to understand	Average score	399	415	432	433
	Percent of students	17%	23%	27%	33%

The majority of students reported receiving feedback from their teachers. However, nearly one in every five reported that their teachers "never or almost never" do.

Student reports also suggest that teachers may not be providing enough balanced feedback to their students; teachers were more likely to focus on communicating to students how to improve performance as opposed to giving feedback on strengths. Six in every 10 students reported that their teachers communicate how to improve their performance in "many lessons" or "every lesson/almost every lesson", as opposed to five in 10 who reported similarly to providing feedback on strengths (Table 8). No differences were evidenced in the amount of feedback received based on school type or student gender.

Minor differences in reading scores were observed between students who reported receiving feedback and those who did not (Table 8). Feedback has been shown to have a noticeable impact on learning, and if not given accurately, might lead to negative outcomes. This may suggest that teachers in Jordan are not giving accurate or effective feedback. To ensure that students benefit from feedback, it should be specific, accurate and clear (Education Endowment Foundation, 2018).[27]

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27 Education Endowment Foundation. (2018). Feedback: Teaching and Learning Toolkit. Retrieved from: https://educationendowmentfoundation.org.uk/pdf/generate/?u=https://educationendowmentfoundation.org.uk/pdf/toolkit/?id=131&t=Teaching%20and%20Learning%20Toolkit&e=131&s=

TABLE 8 : STUDENT REPORTED FREQUENCY OF RECEIVING FEEDBACK FROM THEIR TEACHERS, AND THEIR AVERAGE READING SCORES

How often in the [Arabic] language class …		Never or almost never	Some lessons	Many lessons	Every lesson or almost every lesson
The teacher gives me feedback on my strengths in this subject	Average score	402	423	436	423
	Percent of students	21%	29%	26%	25%
The teacher tells me in which areas I can still improve	Average score	422	418	429	423
	Percent of students	17%	29%	29%	25%
The teacher tells me how I can improve my performance	Average score	412	424	430	422
	Percent of students	16%	26%	28%	31%

Student reports suggest that teachers expressed positive emotions in class.

Nearly 80% of students agreed or strongly agreed that "The teacher showed enjoyment teaching" (Table 9). Additionally, most students (84%) agreed or strongly agreed that "it was clear that the teacher likes to deal with the topic of the lesson". This is positive, as research suggests that a teacher's interest in the subject taught can improve a student's learning motivation (Davion, 2017).[28]

Public school female students were more likely to report that their teachers show enthusiasm and positive emotions towards teaching when compared to their male counterparts. For example, 88% of public school female students agreed that their teacher likes to deal with Arabic, compared to 78% of male peers (Table 9). This gap in student perceptions of teacher positivity was greater among public, compared to non-public, school students.

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28   Davion, J. (2017). The role of teachers in motivating students to learn. *BU Journal of Graduate Studies in Education, 9*(1), 2013–2016.

TABLE 9 : STUDENT AGREEMENT WITH THE FOLLOWING TEACHER PRACTICES, BY SCHOOL TYPE AND STUDENT GENDER

	Total percent (public and non-public)	Non-Public		Public	
		Male	Female	Male	Female
It was clear to me that the teacher liked teaching us	77%	78%	78%	72%	81%
The enthusiasm of the teacher inspired me	74%	72%	75%	69%	77%
It was clear that the teacher likes to deal with the topic of the lesson	84%	85%	87%	78%	88%
The teacher showed enjoyment in teaching	78%	80%	82%	74%	80%

STUDENT
LEVEL FINDINGS

WHAT IS THE NATURE OF STUDENTS' SELF-CONCEPT TOWARDS THEIR OWN READING ABILITIES?

While most students agreed that they were good readers, many reported facing difficulties with reading.

Students had high self-concept relating to reading abilities, with more than eight in 10 students agreeing with the statements "I read fluently" and "I am a good reader" (Figure 8), and only three in 10 students agreeing that they have always had difficulty with reading. This is despite the finding that two in every five students did not reach minimum reading proficiency on the PISA. Despite high reported self-concept in some areas of reading, when students were asked specific questions on reading comprehension, responses painted a different picture. Seven in 10 students agreed that they had to read a text several times to completely understand it and two in five agreed that they found it difficult to answer questions about a text (Figure 8). However, 78% agreed that they were able to understand difficult texts. These seemingly contradictory responses may signify that while students are able to understand texts, they struggle to do so.
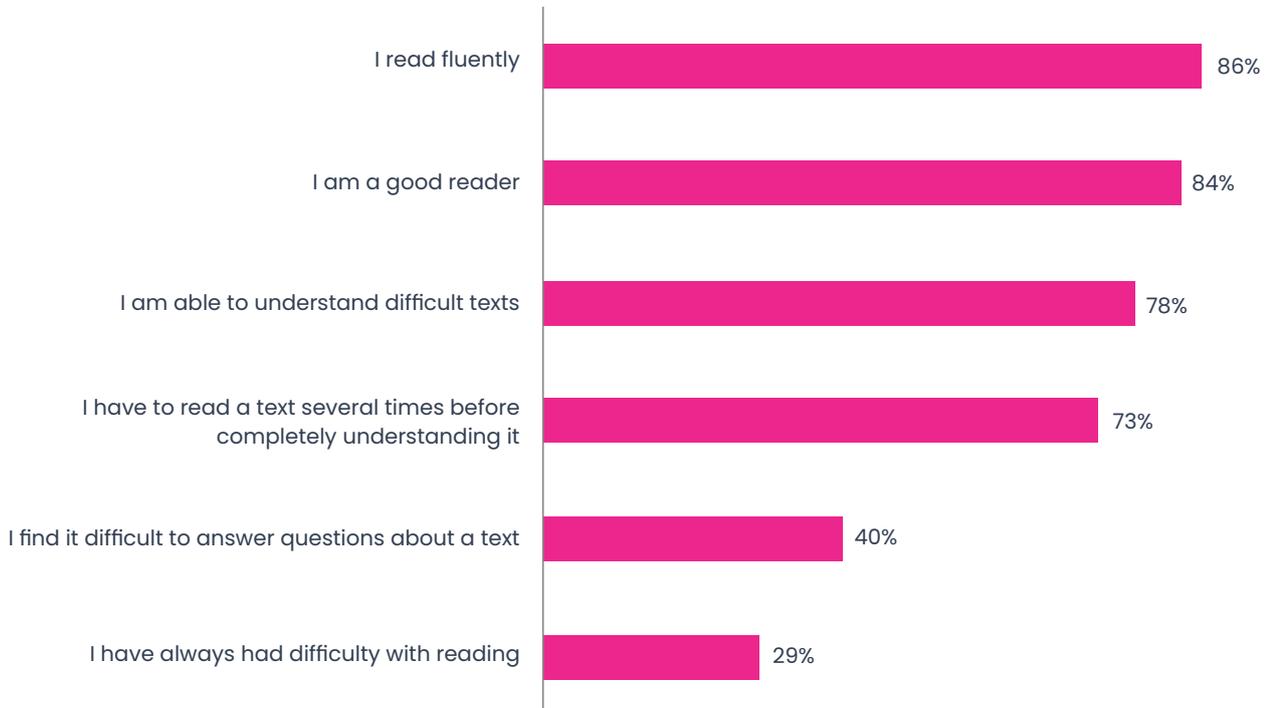
These findings on students' self-concept overall conflict with what is known about language development from the literature. Seminal research has shown that reading fluency is considered an essential prerequisite for reading comprehension, so that students focus on the meaning of the text, rather than on decoding it (LaBerge & Samuels, 1974).[29] However, in the case of Jordan, many students believed they were fluent readers, but struggled with comprehending texts, and overall PISA scores on the reading domain did not reflect high performance. One explanation may be that students are memorizing the shape of words and recognize them, but cannot necessarily comprehend them. A more direct assessment of students' reading fluency, and its links to comprehension in the Jordanian context may be beneficial to understand the areas students are struggling in, to better direct teaching and learning.

A positive relationship between students' self-concept and scores on reading were observed. For example, students who agreed with statements on being fluent and good readers had higher average scores on the reading domain than those who did not. Students who agreed with "I read fluently" scored an average of 433 compared to those who disagreed, with an average score of 372. In addition, students who were less likely to report having difficulty with reading, scored higher on reading.

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29 LaBerge, D., & Samuels, S.J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology, 6*(2), 293–323. doi:10.1016/0010-0285(74)90015-2

FIGURE 8 : PERCENT OF STUDENTS WHO "AGREED" OR "STRONGLY AGREED" WITH THE FOLLOWING STATEMENTS

Statement	Percent
I read fluently	86%
I am a good reader	84%
I am able to understand difficult texts	78%
I have to read a text several times before completely understanding it	73%
I find it difficult to answer questions about a text	40%
I have always had difficulty with reading	29%

Female students had higher reported self-concept in reading abilities than their male peers. This gap was more pronounced among public school students.

Nine in every 10 female students in public schools agreed that they are good readers, as opposed to 77% of male students. In addition, 90% of female students in public schools agreed that they are able to read fluently, as opposed to 82% of males. Additionally, male students were twice as likely to agree that they have always had difficulty with reading; 34% of non-public school and 41% of public school male students agreed with this statement, compared to 17% of non-public and 20% of public school female students (Table 10).

TABLE 10 : STUDENT AGREEMENT WITH THE FOLLOWING READING COMPREHENSION STATEMENTS, BY TYPE OF SCHOOL AND STUDENT GENDER

	Non-Public		Public	
	Male	**Female**	**Male**	**Female**
I am a good reader	80%	84%	77%	91%
I am able to understand difficult texts	77%	79%	73%	81%
I read fluently	84%	87%	82%	90%
I have always had difficulty with reading	34%	17%	41%	20%
I have to read a text several times before completely understanding it	69%	72%	71%	75%
I find it difficult to answer questions about a text	40%	28%	48%	35%

Do students have meta-cognitive awareness as it relates to strategies to tackle reading-related tasks?

Students had knowledge of the most useful tasks to tackle tasks related to summarizing, understanding and memorizing texts.

When it comes to strategies for understanding and memorizing texts, students were most likely to find underlining important parts of the text and summarizing the text in their own words most useful.   Average usefulness scores for the aforementioned strategies - as rated on a six-point scale, with "1" being not useful at all and "6" being very useful - were 4.6 and 4.3, respectively (Table 11). According to a technical report released by the OECD on the usefulness of the different strategies outlined in Figure 11, the two aforementioned are the most useful and effective (OECD, 2015).[30] Meanwhile, students were least likely to find reading the text aloud to another person and reading through the text twice useful (average score of 3.8). These strategies were rated as less effective by reading experts in relation to the other strategies presented to students.

Across both school types, female students were more likely to find almost all strategies more useful compared to their male counterparts. For example, average usefulness rating scores for underlining important parts of the text were 5.1 for non-public school and 5 for public school female students, compared to an average of 4.3 for non-public school and 4.1 for public school male counterparts (Table 11).

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30 OECD. (2015). PISA-based test for schools. Technical Report. Retrieved from: http://www.oecd.org/pisa/aboutpisa/PfS_TechReport_CRC_final.pdf

TABLE 11 : AVERAGE REPORTED USEFULNESS SCORES FOR THE STRATEGIES USED FOR UNDERSTANDING AND MEMORIZING TEXTS, NATIONALLY, BY SCHOOL TYPE AND STUDENT GENDER

	OECD ranking of method usefulness	Non-Public			Public	
		Total	Male	Female	Male	Female
I underline important parts of the text	1	4.6	4.3	5.1	4.1	5
I summarize the text in my own words	1	4.3	4.1	4.4	4.1	4.5
After reading the text, I discuss its content with other people	1	4.0	3.8	4.3	3.6	4.3
I concentrate on the parts of the text that are easy to understand	2	3.9	3.7	4.2	3.4	4.3
I quickly read through the text twice	2	3.8	3.8	4	3.5	4
I read the text aloud to another person	2	3.8	3.6	3.6	3.8	3.8

When it comes to strategies used for writing a summary, the two strategies students rated as most useful were: 1) reading through the text and underlining the most important sentences then writing it in one's own words, and 2) carefully checking whether the most important facts in the text are represented in the summary. Average usefulness scores for the aforementioned strategies were 4.5 and 4.4, respectively (Table 12). Based on an OECD technical report, these are two of the most useful strategies students can use to summarize a text (OECD, 2015).[31] Meanwhile, students were least likely to find copying out many sentences useful (average score of 3.4), which reading experts ranked as one of the least useful and effective strategies.

Similar trends were observed for strategies used for writing a summary; female students were more likely to find almost all strategies more useful compared to their male counterparts. For example, average usefulness rating scores for reading through the text, underlining the most important sentences and then writing them in their own words were 4.9 for non-public and public female students, compared to an average of 4.3 for non-public school and 4.1 for public school male counterparts (Table 12).

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31   OECD. (2015). PISA-based test for schools. Technical Report. Retrieved from: http://www.oecd.org/pisa/aboutpisa/PfS_TechReport_CRC_final.pdf

TABLE 12 : AVERAGE REPORTED USEFULNESS SCORES FOR THE STRATEGIES USED TO WRITE SUMMARIES, BY SCHOOL TYPE AND STUDENT GENDER

	OECD ranking of method usefulness	Total	Non-Public		Public	
			Male	Female	Male	Female
I read through the text, underlining the most important sentences. Then I write them in my own words.	1	4.5	4.3	4.9	4.1	4.9
I carefully check whether the most important facts in the text are represented in the summary.	1	4.4	4.3	4.8	3.9	4.7
Before writing the summary, I read the text as many times as possible.	2	4.1	3.9	4.4	3.7	4.4
I write a summary. Then I check that each paragraph is covered in the summary, because the content of each paragraph should be included.	1	3.8	3.5	4.2	3.3	4.2
I try to copy out accurately, as many sentences as possible.	3	3.4	3.3	3.3	3.4	3.5

Across both areas - understanding and memorizing texts as well as writing a summary - there were no perceived differences in students' usefulness ratings based on school type. Variances were only observed based on student gender. This may suggest female students had higher awareness of strategies, which are linked to higher meta-cognitive abilities. Meta-cognition is one's ability to think about their thinking and strategies. Research has shown that meta-cognitive abilities are associated with student performance; the higher the meta-cognitive abilities, the higher the student scores (Mevarech & Kramarski ,2014).[32]

Correlations between reading scores, and the composite indices of the variables of strategies used for understanding and memorizing text, and summarizing texts, showed there was a weak positive correlation (with correlation coefficients of 0.183 and 0.224, respectively). The greater the student knowledge of strategies, the higher their reading scores. Teachers, across all grade levels, should consider more explicit instruction on strategies to enhance students' meta-cognitive skills, which may in turn enhance students' reading achievement, as reflecting on one's own learning is essential for successful schooling (Ertmer & Newby, 1996).[33]

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32   Mevarech, Z. and B. Kramarski (2014), Critical Maths for Innovative Societies: The Role of Metacognitive Pedagogies, Educational Research and Innovation, OECD Publishing, Paris, Retrieved from: https://doi.org/10.1787/9789264223561-en.

33   Ertmer, P.A., Newby, T.J. (1996). The expert learner: Strategic, self-regulated, and reflective. *Instr Sci 24*, 1–24. https://doi.org/10.1007/BF00156001

WHAT ARE STUDENTS' GENERAL PERCEPTIONS TOWARDS READING?

Perceptions towards reading were contradictory; while most students agreed that reading is one of their favorite hobbies, many also reported only reading to get information they need.

More than three in five students agreed that reading is one of their favorite hobbies, and three in five agreed that they enjoy discussing books (Figure 9). However, 56% also agreed that they read only to get the information they need, and one quarter of the students agreed that they only read if they have to and that reading is a waste of time. These responses are contradictory, and do not paint a clear picture of student attitudes towards reading. Further analysis revealed that students who disagreed with the statement that reading is one of their favorite hobbies were more likely to agree with the statement that they only read to get the information they want (64%), when compared to students who agreed that reading is one of their favorite hobbies (52%).

Nonetheless, more than half of students who reported reading is one of their favorite hobbies, also agreeing that they only read to get the information they need is a substantial proportion of students. These conflicting responses may be a result of social desirability bias when responding to the questionnaire; students may have felt compelled to agree with the positive statements on reading, despite their true perceptions. Perceptions towards reading were similar across public and non-public school students.

Students who reported reading only if they have to, reading only to get the information they needed, or perceived reading as a waste of time, had lower average reading scores than students who had more positive views towards reading. For example, students who agreed with reading only if they have to, scored an average of 407 compared to those who disagreed who scored an average of 427. Whereas students who reported that reading is one of their favorite hobbies, had higher average reading scores (an average score of 424 compared to 400 for those who disagreed).

FIGURE 9 : THE PERCENT OF STUDENTS WHO AGREED OR DISAGREED WITH THE FOLLOWING STATEMENTS ABOUT READING
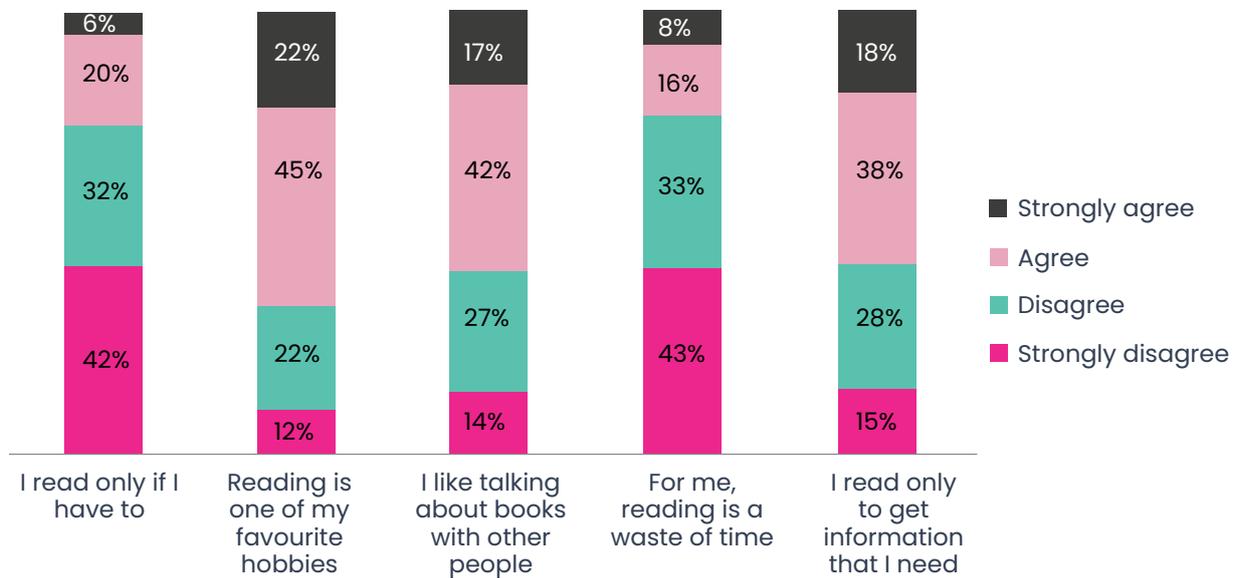
Female students were more likely to value reading as opposed to their male counterparts.

Twice as many male students agreed that reading is a waste of time compared to female students; 32% compared to 16%, respectively. In addition, 63% of male students agreed that they only read to get information they need, compared to 50% of female peers (Figure 10). As aforementioned, female students outperform their male counterparts in the reading domain of PISA. It is difficult to ascertain whether female students perceived reading more favorably because they were better readers, or if they were better readers because they were more likely to enjoy reading than their male counterparts.

FIGURE 10 : THE PERCENT OF STUDENTS WHO AGREED OR STRONGLY AGREED WITH THE FOLLOWING STATEMENTS ABOUT READING, BY STUDENT GENDER
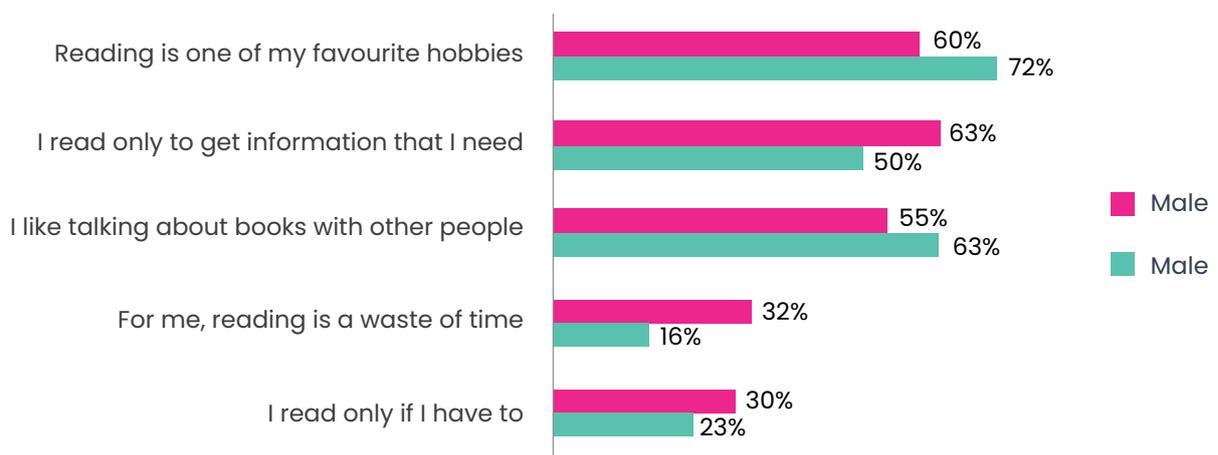
WHAT TYPES OF READING ACTIVITIES DO STUDENTS CONDUCT OUTSIDE OF SCHOOL?

Many students did not read for enjoyment, and the majority of those who did, read for 30 minutes or fewer per day.

One in every four students reported they do not read for enjoyment at all, and one in three reported reading for 30 minutes or fewer per day. On the other hand, one in five students reported reading more than one hour a day (Table 13). Twenty-four percent of non-public and 27% of public school female students reported reading for more than an hour per day, compared to 12% of non-public and 14% of public school male students (Table 13).

Reading enjoyment is a critical element for a child's educational performance. Benefits of reading for pleasure include improvements in text comprehension and grammar, positive reading attitudes and increased general knowledge (Clark and Rumbold, 2006).[34]

TABLE 13: STUDENTS' SELF-REPORTED TIME SPENT READING FOR ENJOYMENT, NATIONALLY, BY SCHOOL TYPE AND STUDENT GENDER

	Total	Non-Public		Public	
		Male	Female	Male	Female
I do not read for enjoyment	25%	35%	23%	32%	18%
30 minutes or less a day	34%	36%	29%	35%	34%
More than 30 minutes to less than 60 minutes a day	20%	17%	23%	19%	21%
1 to 2 hours a day	13%	6%	14%	8%	18%
More than 2 hours a day	8%	6%	10%	6%	9%

A relationship between time spent reading for enjoyment and scores on reading were observed. Students who reported spending more time reading had higher average scores on the reading domain. For example, students who reported spending more than two hours of reading a day scored an average of 444, compared to those who reported spending 30 minutes or less per day with an average reading score of 425 (Table 14). Students who reported not reading for enjoyment at all had the lowest average scores, at 417.

34   Clark, C., & Rumbold, K. (2006). Reading for pleasure: A research overview. National Literacy Trust, November, 35. http://www.scholastic.com/teachers/article/collateral_resources/pdf/i/Reading_for_pleasure.pdf

TABLE 14 : STUDENT READING ASSESSMENT SCORES BY TIME SPENT READING

	Average Scores
I do not read for enjoyment	417
30 mins or less a day	425
More than 30 minutes to less than 60 minutes a day	432
1 to 2 hours a day	439
More than 2 hours a day	444

Students in Jordan were more likely to report reading fiction, followed by non-fiction and comic books.

Fifty-eight percent, 49%, and 46% of students reported reading fiction, non-fiction, and comic books, respectively, at least once a month out of their own volition, and not for school. Meanwhile, students were less likely to report reading magazines and newspapers with more than four in 10 reporting that they "never or almost never" did (Figure 11). These findings are important for schools and decision-makers to consider regarding the content offered at school libraries. This is essential as research shows a positive relationship between choice of reading and cognitive processing, motivation and long-term health (Schraw, Flowerday, & Reisetter, 1998).[35]

FIGURE 11 : PERCENT OF STUDENTS WHO REPORTED READING THE FOLLOWING MATERIALS BECAUSE THEY WANTED TO
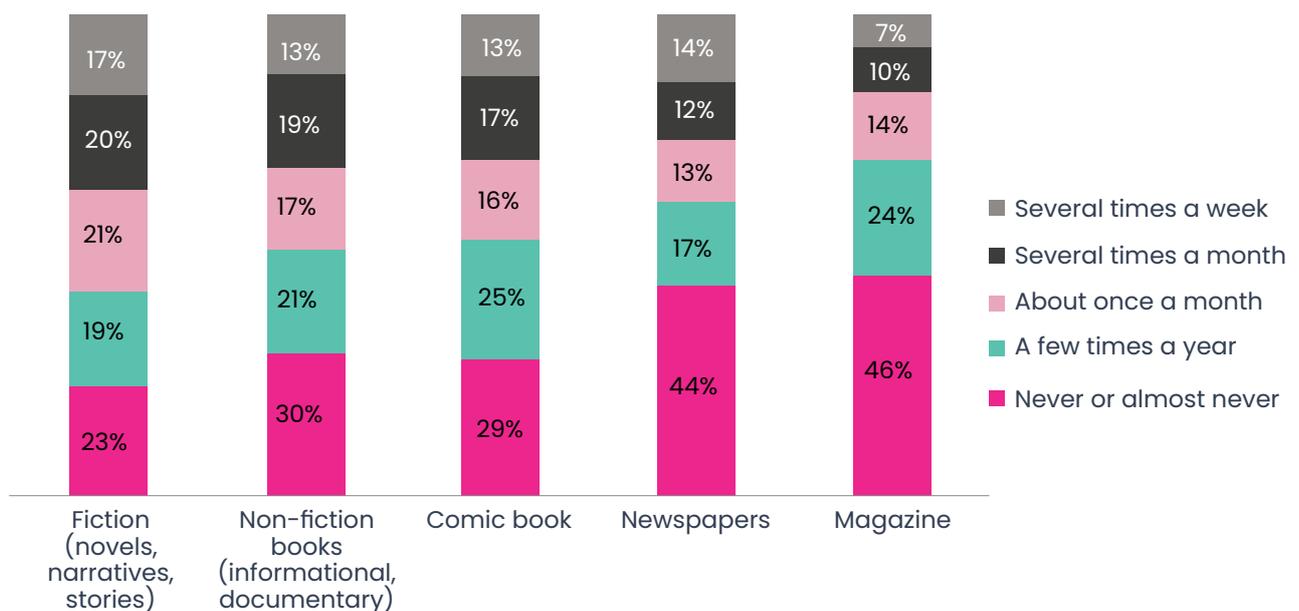
35   Schraw, G., Flowerday, T., & Reisetter, M. F. (1998). The Role of Choice in Reader Engagement. *Journal of Educational Psychology, 90*(4), 705–714. https://doi.org/10.1037/0022-0663.90.4.705

Male students were more likely to report reading non-fiction and newspapers, as opposed to females, who were more likely to report reading fiction. Thirty-five percent of non-public and 37% of public school male students reported reading non-fiction more than once a month, as opposed to 28% of female peers. In addition, 29% of non-public and 33% of public school male students reported reading newspapers, as opposed to 18% of non-public school and 21% of public school female students. Meanwhile, 45% of female students reported reading fiction, compared to 29% of male peers.

Slightly over two in 10 students reported never or rarely reading books, and those who did read were roughly equally likely to read books in paper or digital format.

Nearly three in 10 students reported reading books in paper format, 25% reported reading books on digital devices, and 23% percent reported reading books in paper and digital formats equally.

It would be interesting to understand why some students prefer digital, as opposed to paper format, and vice versa. Are preferences related to availability of specific content in digital form, rather than paper form? Or is the preference arbitrary? Exploring this further may support content providers to know the content students are interested in, and the format in which content should be disseminated.

Male students were more likely to report never reading books compared to their female counterparts (30% compared to 18%, respectively). No major differences were observed in students' preferences regarding the format books are read in based on gender and school type.

Students' online reading activities were mostly related to chatting online, and less related to taking part in online group discussions or forums.

Three in five students reported chatting online "several times a day" (Figure 12). A substantial proportion of students also reported reading online news or searching information online to learn about a particular topic several times a day or week (more than three in five). Additionally, more than half of students reported searching online for practical information several times a day or week. Meanwhile, taking part in group discussions/forums was one of the least common online reading activities; 36% of students reported never or almost never doing so (Figure 12). Reading emails was also uncommon among students; only 17% reported reading emails several times a day, and more than a quarter reported never or almost never doing so. Additionally, one in five students did not even know what reading emails is. These results are slightly worrying, considering the ubiquity of technology and email use in the 21st century. Jordan heavily relies on its human resources, and students should be introduced to such technologies in order to be well-equipped for the demands of the century. Additionally, email is a means to enhance and support student-teacher interactions (Hassini, 2006).[36]

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36 Hassini, Elkafi. (2006). Student–instructor communication: The role of email. Computers & Education. 47. 29-40. 10.1016/j.compedu.2004.08.014.

FIGURE 12 : STUDENTS' REPORTED FREQUENCY OF INVOLVEMENT IN THE FOLLOWING ONLINE READING ACTIVITIES
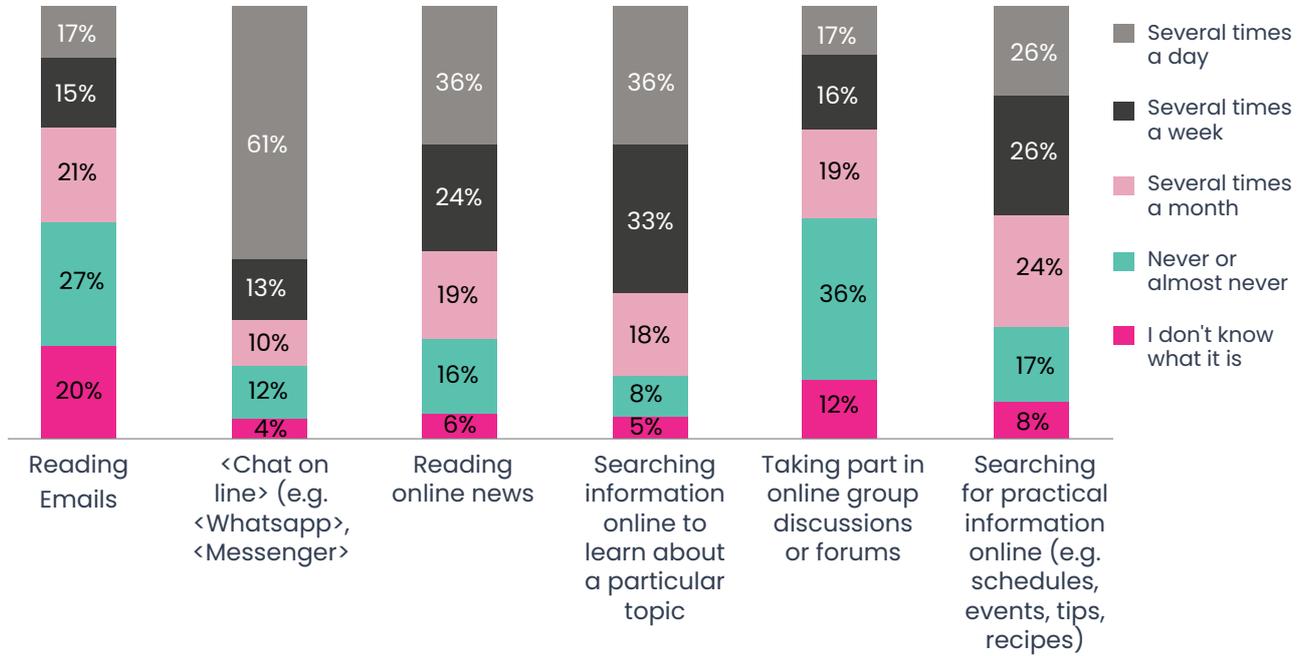
CLOSING
REMARKS

This paper explored the reading activities students in Jordan partake in, their attitudes towards reading, their self-concept towards their reading abilities and the environment in which they are learning the Arabic language. Average scores were also explored, to observe trends in achievement based on different attributes. However, since the analysis was descriptive in nature, no causal inferences were drawn. Additionally, it is important to note that the conclusions of this report are drawn from self-reported data from principals and students. As a result, the data reflects their perceptions of what is happening in schools and classrooms and should be interpreted with a grain of salt.

Overall, students and principals painted a positive image of reading practices in the school and classroom, and of perceptions towards reading. For example, most schools in Jordan have policies to structure language learning. Average language lesson time in Jordan was also longer than the OECD average. Additionally, student reports suggested they are learning in encouraging and engaging classrooms, and receive feedback from their teachers. Students also had high self-concept of reading abilities and reported that reading was one of their favorite hobbies. Additionally, students seemed to have meta-cognitive skills and recognized the most useful strategies to tackle some reading tasks.

In some cases, however, a less positive image of reading practices in the school and classroom and student perceptions was drawn. For example, most students reported that the longest text they ever had to read for the Arabic lesson was 10 pages or fewer. Additionally, many students viewed reading as a task; reading only to get information they need. Other results were also worrying, with 20% of students reporting they do not know what emails are.

These results then raise the question of: why are existing classroom and school practices not being translated into student learning? This aspect will be further explored in a paper on the determinants of student achievement in reading, which will explore what factors influence and explain reading achievement (Ghawi & Dahdah, 2022).[37]

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37 Ghawi, G., Dahdah, S. (2022). Determinants of student achievement on PISA 2018: the case of Jordan's public school students. Queen Rania Foundation – Amman.