PISA-2022 RESULTS: IMPLICATIONS FOR LANGUAGE AND LITERATURE EDUCATION IN UZBEKISTAN

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Abstract. *The government of Uzbekistan has set an ambitious goal to become one of top-30 countries in Programme for International Students Assessment (PISA) by 2030. However, the country's first-time participation in PISA-2022 shows that most of 15-year-old schoolchildren, who are about to complete basic secondary education according to local legislation, have problems understanding texts they read, and applying their knowledge to solve real-life problems. These results should not come as a surprise, however, since a number of studies conducted earlier had revealed that for many schoolchildren, reading comprehension poses a serious challenge. Considering that reading is a skill that affects overall academic performance, language and literature education in schools should shift away from an emphasis on grammar awareness and literary texts to a more balanced approach that aims to develop literacies and higher-order thinking skills.*
Keywords*: reading, language curriculum, PISA, Uzbekistan, literature curriculum.*

Uzbekistan participated in Programme for International Students Assessment (PISA) for the first time in 2022, and its results, published in 2023, revealed a number of issues that need to be addressed, considering Uzbekistan's ambitious goal to be among top-30 nations in PISA by 2030 (President of Uzbekistan, 2019). This article looks at PISA-2022 results, particularly, at results in reading literacy and its implications for language and literature education in Uzbekistan.

PISA-2022 results for Uzbekistan

PISA-2022 was the eighth cycle of Programme for International Students Assessment (PISA), a transnational study conducted every three years by Organisation for Economic Co-operation and Development (OECD) to measure what 15-year-old schoolchildren can do on reading, mathematics and science. It involved some 290,000 students representing 29 million schoolchildren from 81 countries or territories. Overall, the results show that there has been a considerable decline in students' mathematics, science and reading performance worldwide compared to previous PISA cycles, and this decline cannot solely be attributed to COVID-19 pandemic and its impacts on education, like, for example, school closures (OECD, 2023).

From Uzbekistan, more than 7,200 schoolchildren from more than 200 schools took part in the assessment. Most of them were 9th graders, which means that they were in their final year of basic secondary schooling, according to the local legislation (Avloniy NRI, 2023). Uzbekistani students scored significantly lower than their peers in other participating countries and territories (see Table 1 below).

As the focus of the study is on skills essential for full participation in social and economic life, students are not tested on the reproduction of knowledge they gain in schools, but on whether they can extrapolate and apply this knowledge in new situations. Results are reported in six proficiency levels, Level 2 being the minimum proficiency level for the target age group, and Levels 5-6 being considered as "high performance".

Table 1. Uzbekistan's results in PISA-2022, compared to OECD average

	Average score for Uzbekistan	*OECD average*	*Uzbekistan's rank (out of 81 countries)*
Reading literacy	336	476	80
Mathematics	364	472	72
Science	355	485	80

The worrying trend for Uzbekistan is that more than 60% of students from Uzbekistan did not reach Level 2 in any of three areas tested (reading, math, and science). Also, there were no high performers among Uzbekistani students in any of three areas covered by assessment (see Table 2 below).

	Percentage of low-performing students (below Level 2)		*Percentage of high-performing students (Levels 5-6)*	
	Uzbekistan	*OECD average*	*Uzbekistan*	*OECD average*
Reading literacy	86	26	0	7
Mathematics	81	31	0	9
Science	81	24	0	7

Table 2. Uzbekistan's percentage of low-performing and high-performing results in PISA-2022, compared to OECD average

Analysts agree that several systemic factors contribute to the problem, including, but not limited to: content-oriented curriculum and assessment that do not encourage development of higher-order thinking skills, a single-textbook policy that leads to poor quality of teaching and learning materials, and inability of the system to attract and retain high-quality teachers and help them grow professionally (Djalilov, 2024a; Djalilov, 2024b; Development Strategy Centre, 2024).

Uzbekistan's performance in reading literacy

PISA defines reading literacy as "understanding, using, evaluating, reflecting on and engaging with texts, in order to achieve one's goals, to develop one's knowledge and potential and to participate in society" (OECD, 2019, p.29). Therefore, the six levels of reading literacy describe different levels of a reader's interaction with the text: scanning the text to locate specific information required, grasping literal and inferential meaning, evaluating and reflecting on the content and from of the text. Questions used to assess reading literacy are based on different types of texts (descriptive, narrative, expository, argumentative, instructive, transactional) a student may encounter in personal, public, educational, and occupational contexts.

In PISA-2022, only about 14% of Uzbekistani schoolchildren were able to attain Level 2 or above, compared to OECD average of 74%. This means that the vast majority of 15-year-old schoolchildren have problems in "identifying the main idea in a piece of text of moderate length; understanding relationships or construing meaning within a limited part of the text when the information is not prominent by producing basic inferences, and/or when the text(s) include some distracting information; locating one or more pieces of information based on multiple, partly

implicit criteria; reflecting on the overall purpose, or on the purpose of specific details, in texts of moderate length; reflecting on simple visual or typographical features of a text; comparing claims and evaluating the reasons supporting them based on short, explicit statements" (OECD, 2022, p.100).

Reading literacy results of Uzbekistan in PISA-2022 are in line with a number of studies conducted earlier in this country to measure reading skills of schoolchildren. The Progress in International Reading Literacy Study (PIRLS) conducted by International Association for the Evaluation of Educational Achievement (IEA) in 2021 revealed that most 4th graders in Uzbekistan have problems going beyond locating, retrieving, and reproducing explicitly stated information and making simple, straightforward inferences from predominantly easy texts (Mullis et al, 2023). In the 2021 National Early Grade Reading Assessment (EGRA) that covered more than 21,000 students in Grades 3 and 5 in 935 schools across Uzbekistan, only 57% of 3rd graders and 47% of 5th graders were able to score 80% (the threshold mark) in reading comprehension (Harden et al, 2022). In a study conducted by UNICEF in 2019, only 42,9% percent of schoolchildren in Grade 4 demonstrated understanding of a text they read in the language of instruction (Gazeta.uz, 2019).

Comparison of school language and literature curricula of Singapore and Uzbekistan

Since studies confirm that reading comprehension is one of the key factors affecting students' overall academic performance in general and performance in math and science in particular (Akbaşlı, Şahin and Yaykiran, 2016), there is a strong need for comparison of how schools help their students develop reading skills in some of high-performing countries and in Uzbekistan. Because of space and other constraints, the scope of this article is limited to Singapore, whose students demonstrated high performance in PISA-2022 and earlier PISA cycles. Singapore also scored high in PIRLS (Progress in International Reading Literacy) programme that assesses students' reading achievement in primary school (see PISA-2021 results), which may suggest that schools start helping students develop their reading literacy in early grades.

Reading is an interactive process that involves both bottom-up processing, like decoding a word, understanding its lexical meaning, and recognising grammar patterns, and top-down processing, which is bringing the reader's background knowledge, awareness of the context, and knowledge of the discourse structure (or text type) to help derive meaning from a text. A host of different factors, including the purpose of reading, the type of the text, its level of difficulty, the reader's familiarity with the topic and the presence or absence of relevant contextual information affects both how the reader deals with the text and to what extent comprehension occurs (Watkins, 2017). Research suggests that active self-regulation skills, such as planning and managing one's progression towards the reading goal, control of attention and ability to suppress distractors, effective use of reading strategies, motivation and engagement also contribute to reading comprehension (Duke and Cartwright, 2021). These skills – both text processing and self-regulation – can and should be taught as a part of school curriculum.

According to Schleicher (2018), high-performing education systems set high standards and incorporate these standards into their curricula and assessment, making sure that educational goals, instructional practices and examinations are aligned. In these systems, students focus on the development of higher-order thinking skills and their application to real-world problems. Language or language and literature are usually the main subjects in school curriculum through which reading skills, including higher-order cognitive skills related to text processing, are developed and assessed.

In Singapore, whose students demonstrated high performance in PISA-2022 and earlier PISA cycles, English curriculum relies on integration of receptive (reading, listening) and productive (writing, speaking) skills as a context for both oral and written communication, and teachers are expected to encourage students to read a variety of texts of increasing difficulty, with complex ideas and implicit and ambiguous meaning in order to explore a broader range of issues and perspectives (Singapore Ministry of Education, 2020). The curriculum also prescribes teachers "to pay increased attention to multiliteracies, metacognitive strategies and exploratory talk in order to help students achieve 21st century competencies across all areas of language learning" (ibid, p.14), guiding students to apply bottom-up and top-down information processing and metacognitive strategies in their interactions with various texts they encounter in their language classes.

Singapore–Cambridge General Certificate of Education Ordinary Level examination includes tasks that require students to respond to a variety of texts (narrative, non-narrative, visual), demonstrating comprehension and analysis skills (Singapore Ministry of Education and UCLES, 2022). Thus, curriculum – assessment alignment is evident, when what is taught becomes what is assessed.

Likewise, Literature in English curriculum aims to bring up empathetic and global thinkers, critical readers, creative meaning-makers and convincing communicators through students' active engagement with the text. Students should be able to analyse different aspect of a text (plot, character, setting and atmosphere, style, and theme) and make connections between the text and their own lives, their peers, the world they live in and other texts they have studied (Singapore Ministry of Education, 2019).

In Uzbekistan, language and later, language and literature, are one of the main subject areas taught throughout the entire period of compulsory schooling. Language is also assessed both before students leave school and when they apply for tertiary education. According to the National Educational Standards adopted in 2017, the main goals of language and arts curriculum in compulsory education are to develop receptive and productive language skills, linguistic awareness (phonetics, lexicology, morphology, syntax and stylistics) and independent thinking through analysis of texts, including literary texts (Cabinet of Ministers of Uzbekistan, 2017).

However, an analysis of native language textbooks reveals that in most cases, there is little, if no, focus on development of language skills, including reading. These textbooks provide a systematic coverage of grammar, and students are expected to apply this knowledge to grammatical analysis of phrases and sentences. For example, one of the lessons in Grade 4 "Native (Uzbek) Language" textbook is titled "Personal pronouns": a definition of personal pronouns is provided, followed by a series of exercises which ask students to identify personal pronouns or supply missing personal pronouns in the given sentences (Toirova and Boynazarova, 2023, pp.9-12). Similarly, a lesson from a Grade 9 "Native (Uzbek) Language" textbook focuses on the types of complex sentences: students are expected to classify series of isolated sentences or sentences from a text according to the types of complex sentences (Mahmudov et al, 2014, pp.19-21). These kinds of activities cannot provide a context for meaningful language learning and do not contribute to development of reading skills, let alone higher-order cognitive skills.

"Reading Literacy" textbooks for primary schools (Grades 1-4) and "Literature" textbooks for secondary schools (Grades 5-11) focus predominantly on fiction: students read fairy tales, short stories and poetry, and novels and drama are introduced at later stages of schooling. However, a

curriculum that focuses on one type of text (fiction) and excludes others (non-fiction) cannot be considered balanced or comprehensive and nurture students' love for reading (Rasinski and Padak, 2004). Moreover, literature textbooks in Uzbekistan tend to provide students with ready analyses of literary texts covered by the syllabus, which may demotivate students from putting efforts to analyse the texts for themselves.

It should be kept in mind here that Uzbekistan operates a single textbook policy, which mandates schools to use only textbooks published by or with endorsement of the ministry of education, and does not allow choosing alternatives. This means that what is covered in ministry-mandated textbooks de-facto becomes curriculum taught.

An analysis of test specifications for university entrance examinations developed and administered by Agency for Assessment of Knowledge and Skills, a government authority responsible for university admissions shows that test items that assess reading comprehension constitute a very small percentage of a test paper, the main bulk of which focusing on knowledge of grammar rules and remembering information about writers and their works covered in literature classes (Agency for Assessment of Knowledge and Skills, 2024).

Thus, we see a strong mismatch between curriculum, pedagogy and assessment. While the stated goals of the curriculum are language skills and thinking skills, textbooks predominantly focus on memorization of grammar rules and high-stakes tests largely assess grammar knowledge. The latter may cause a strong negative washback, since research suggests that there is potential for negative washback when there is very little or no overlap between curricular goals and constructs covered by a test perceived as important by learners (Green, 2006). This calls for further research in the field.

Conclusion

Uzbekistan's first-time participation in PISA revealed that most of 15-year-old schoolchildren have problems with basic literacy skills, and cannot apply their math and science knowledge to solve basic real-life problems. Considering that reading skills serve as one of the main factors contributing to academic success, there is a strong need to reconsider approaches to language and arts education in schools. Shift from an unbalanced curriculum that places a strong emphasis on grammar awareness and literary texts to a more balanced, comprehensive curriculum that would aim to develop literacies, including reading literacy, through a variety of text types and real-world problems, and tap higher-order thinking skills is necessary, if Uzbekistan wants its schoolchildren to perform better in PISA and eventually, to be better equipped for life beyond school.

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