
[What's new in student performance? Insights from the latest large-scale learning assessments](#)

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Cross-national student assessment

Part one of our annual round up of literature on learning assessments focussed on [conducting assessments throughout the COVID-19 pandemic](#). This second part focuses on findings from three international large-scale learning assessments (ILSLAs) released in 2020.

[Programme for the Analysis of Education Systems \(PASEC\) 2019](#). Led by the Conference of Ministers of Education of French speaking countries (CONFEMEN), PASEC conducted its [second international assessment cycle](#) across 14 francophone countries in 2019. PASEC tests children at the beginning and the end of primary education in language and mathematics. It also collects background data on the learning context from pupils, teachers and school heads.

Key findings:

- **Knowledge and skills among primary school students (reading, mathematics).** A "sufficient" threshold is used to determine the proportion of pupils who are more likely to master (above the threshold) or not to master (below the threshold) the knowledge and skills deemed essential to continue their studies normally (below the threshold) the knowledge and skills deemed essential to continue their schooling normally without difficulties (PASEC, 2020b: 40).
- A majority of students do not have the skills level expected at the beginning of the primary cycle in both language (55%) and in mathematics (28.8%). At the end of the primary cycle, in reading more than 52% and in mathematics nearly 62% of students are below the expected level. At the beginning of the primary cycle, there is no significant difference between girls and boys in language. However, the average scores in mathematics are higher for boys at the beginning of the primary cycle. At the end of the primary cycle, girls score higher than boys do in reading and boys score higher than girls do in mathematics.
- **Teachers' knowledge, skills, and perceptions.** Findings point to an acceptable level of knowledge and skills of the disciplinary contents taught, but a weak mastery of the didactics of these disciplines. Qualifications and professional experience appear to be linked with better scores in the disciplinary content taught. Most teachers have a positive opinion as to the

management and social environment of school but are dissatisfied with the physical environment (buildings, availability of materials).

- **Trends in the efficiency and equity of education systems.** Between the two cycles of the PASEC (2014 and 2019), assessment for the 10 countries that participated in both, the average performance in language and mathematics improved considerably, but equity issues remain, with considerable disparities between pupils and between schools.
- **Factors of academic success.** Differences in performance at the start and end of primary schooling are generally based on socio-economic inequalities and the educational path of students (e.g. grade repetition, access to pre-school education). Most countries have low access to pre-school education, limited to only around a third of students. Parental literacy has a positive influence on students' performance in reading and mathematics for all countries.

Key recommendations put forward by the report include the need to:

1. Pursue the development of pre-school education policy;
2. Continue national initiatives to link language of instruction and mother tongue at the start of schooling;
3. Establish or strengthen measures and/or adaptation activities for students with learning difficulties;
4. Improve the quality, availability and distribution of school infrastructure and educational resources;
5. Put in place school measures to improve the performance of girls in mathematics; and
6. Foster the professionalisation of the teaching profession through appropriate policy measures

[Trends in International Mathematics and Science Study \(TIMSS\) 2019](#). The [seventh cycle](#) of the International Association for the Evaluation of Educational Achievement (IEA) TIMSS surveyed students in fourth and eighth grade from 64 countries and eight benchmarking systems. It looked at countries' achievement, home and school contexts, as well as classroom contexts.

Key findings:

- **Average achievements by country.** East Asian countries—Singapore, Chinese Taipei, Korea, Japan, and Hong Kong SAR—were the top performers. Trends generally show improvements in average achievements over the cycles.
- **Achievement by gender.** 'Nearly half the countries had gender equity on average mathematics and science achievement. In mathematics, boys outperformed girls in nearly half the countries at the fourth grade. In science, girls outperformed boys in 18 countries at the fourth grade and 15 countries at the eighth grade' (Mullis, et al. 2020: 10).
- **Educational resources.** 'Students from homes with more educational resources, such as books, an internet connection, and parents with higher levels of education, had higher average achievement in mathematics and science at both grades' (Mullis, et al. 2020: 11). Students attending schools with fewer resource shortages had higher average achievement in mathematics and science at both grades' (Mullis, et al. 2020: 16).
- **The importance of pre-primary schooling.** Students who had received early education activities at home or attended pre-primary education had higher achievement.
- **School environment.** Schools with highly skilled teachers that emphasized academic success had better performing students. Safe school environments and a sense of school belonging was also found to be an achievement factor.

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- **Teachers' professional development.** Teachers reported a need for further professional development opportunities in order to fulfil their role. According to the report, 'although in general less than half the students had teachers who reported participating in such professional development, about 70% had teachers who reported needing future professional development in these areas' (Mullis, et al. 2020: 22).

[Southeast Asia Primary Learning Metrics \(SEA-PLM\) 2019](#). Designed by and for countries in Southeast Asia, this new comparative assessment from the Southeast Asian Ministers of Education Organization and the UNICEF East Asia and Pacific Regional Office looks at learning achievement in reading, writing and mathematics at the end of primary education. This first round of assessment included six countries from the region – Cambodia, Lao PDR, Malaysia, Myanmar, Philippines, and Viet Nam.

Key findings:

- **Reading, writing and mathematics.** Results show huge disparities in reading, writing and mathematical proficiencies across the six countries.
- **Global Citizenship Education (GCED).** Environmental issues as well as local topics related to the classroom environment (solving disagreements and problems) appeared to be the most important and valued GCE topics and concepts. Findings also suggest that there is scope for further promotion of GCED activities in schools in the region. Teachers felt prepared and confident in teaching GCED topics.
- **Equity in learning.** Background, home influence, and school experience have a great impact on children's performance in school across all SEA-PLM countries. . Girls were more likely to perform better than boys, regardless of socioeconomic status or school location. Children who spoke the language of instruction at home performed better in reading, writing and mathematics in most of the countries. Children who had attended at least one year of pre-school performed better than those who had not. Grade repetition was correlated with poorer learning performance. Children in well-resourced schools performed better than children in smaller, less well-resources schools.
- **Attitudes and engagement.** Around 80-% of children in all countries had a positive attitude to school. Children who felt safe at school performed better than those who reported feeling less safe. Higher levels of parental engagement were linked to better performance in reading, writing, and mathematics in children.

The report presents five key recommendations to improve learning:

1. Prioritise early learning in disadvantaged contexts;
2. Guarantee a solid start in primary education through on-time enrolment and progression for all children, especially the disadvantaged;
3. Ensure explicit and progressive learning standards in the curriculum of basic education, including in digital and blended learning options;
4. Support motivated and experienced teachers with conducive teaching and positive school environments;
5. Use data, monitoring and research to achieve better learning environments;

These three assessment reports, from different systems and regions, offer some insight into the challenges to improving learning outcomes for all children faced by all countries. Inequality remains a pressing issue across all regions and an intersectional approach to factors such as gender and socioeconomic status help identify their impact on learning outcomes, especially when combined with

other variables related to the functioning of the educational system (e.g. school environment, teacher quality, etc.). Most of the key recommendations point to similar avenues for improvement: the current learning crisis, worsened by the ongoing COVID-19 pandemic, calls for policies that seek to reduce deeply-rooted inequities within the educational system from an early stage.

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