



PRESS RELEASE

Ministry of Education
SINGAPORE

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INTERNATIONAL OECD STUDY AFFIRMS THE HIGH QUALITY OF SINGAPORE'S EDUCATION SYSTEM

1. Singapore students have fared very well in an international study conducted under the auspices of the Organisation for Economic Cooperation and Development (OECD). Out of 65 countries and economies that took part in the Programme for International Student Assessment (PISA) 2009, Singapore students ranked fifth in Reading, second in Mathematics and fourth in Science. Singapore also had the second highest proportion (12.3%) of students who are top performers¹ in all three domains.

2. PISA assesses the extent to which 15-year-old students near the end of secondary education are able to analyse, reason and apply their knowledge and skills in unfamiliar settings so as to meet real-life challenges. Singapore's good performance at PISA 2009 shows that beyond a strong grasp of knowledge, our students have the ability to think critically and solve real-life problems – skills that are valued in the society and at the workplace. The findings affirm that changes in teaching and learning approaches in our schools are in the right direction, and schools are preparing our students well for their future work and life.

3. Noting the results of the study, the OECD highlighted Singapore as a high performing education system with features that other systems could learn from. These include high-quality principals and teachers, as well as strong leaders with bold long-term visions. OECD also noted that there is a strong link between education and economic development, as well as between policy and implementation in Singapore. Our curriculum is well-developed with rigorous standards aligned to instruction and assessment. OECD also recognised the importance of accountability and meritocratic values that underpin Singapore's strongly global-oriented and future-oriented education system.

¹ PISA defines top performers in a domain as students who have attained the top two proficiency levels (5 and 6).

KEY FINDINGS

Student Performance

4. When top performers in all three domains of Reading, Mathematics and Science were considered as an estimate of each participating country's future talent pool, Singapore had the second highest proportion (12.3%) of such top performers, after only Shanghai (14.6%). The average percentage of top performers among OECD countries was 4.1%.

5. As a testament to the meritocratic values upheld by our education system, about half of our students from the bottom quarter in terms of socio-economic background (or 11.9% of all Singapore students) scored better in Reading than what their circumstances would otherwise predict. This proportion was higher than the OECD average of around 30% (or 7.7% of all students from OECD countries) and was the fifth highest among participating countries.

6. The details of the findings from each domain are below:

(i) **Reading.** In Reading, Singapore students performed better than those from native English-speaking countries like Australia, the United States and the United Kingdom. In addition, Singapore had the third highest proportion (15.7%) of top performers in Reading, after Shanghai and New Zealand. This proportion is twice that of the OECD average (7.6%). Our top performers in Reading could locate and organise several pieces of deeply embedded information and infer which information in the text is relevant. They could also critically evaluate texts.

(ii) **Mathematics.** The mean score of Singapore students in Mathematics was significantly higher than most other participants. Singapore also had the second highest proportion (35.6%) of top performers in Mathematics, after Shanghai. Our top performers could develop and work with mathematical models for complex situations and have well-developed thinking and reasoning skills. They could also communicate their interpretations and reasoning.

(iii) **Science.** Singapore had the second highest proportion (19.9%) of top performers in Science, after Shanghai. Our top performers in Science could identify the scientific components of many complex life situations and apply scientific concepts to these situations. They could use well-developed inquiry abilities and construct arguments based on their critical analysis.

Reading Habits and Approaches to Learning

7. Singapore had the second highest proportion (39.3%) of deep and wide² readers, after Shanghai. Students who enjoyed reading, read regularly, read a

² PISA classified 'deep' readers as those who had high awareness of effective learning strategies, and 'wide' readers as those who read all types of materials regularly.

broad array of materials, and knew what to do to understand, remember and summarise complex information, scored highest in the PISA Reading assessment.

8. PISA 2009 found that in more than two-thirds of participating countries, including Singapore, doing at least some daily reading for enjoyment improved reading performance. Across countries, students who read fiction tended to achieve higher performance, compared to other types of reading material. In Singapore, students who read fiction and newspapers regularly had higher Reading scores than students who did not.

9. On Singapore's performance in PISA, Ms Ho Peng, MOE's Director-General of Education, said, "We are pleased that our students are among the top performers. PISA is an assessment on students' thinking and application of what they know. The outcomes affirm that we are in the right direction in education. It is a system pulling well together – clear directions, adequate resourcing, strong school leadership, high level of professionalism of teachers, good partnerships with parents. It is a system that is strong in the fundamentals. In this regard, reading is crucial, for a good headstart to learning in other areas. I would urge all parents to support us in this effort by nurturing the reading habit in their children."

BACKGROUND ON PISA

10. A triennial study, PISA 2009 is the fourth cycle after PISA 2000, 2003 and 2006. The cycles provide information on performance in the three domains of Reading, Mathematics and Science literacy, but each cycle has a focus on one major domain. The major domain in PISA 2009 is Reading.

11. This was the first time that Singapore had participated in the study. A total of 5,152 randomly-sampled 15-year-old students (mainly Secondary 3 and 4 students) from 167 secondary schools and 131 students from 4 private schools participated in PISA 2009 in Singapore.

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Annex

PISA 2009 Ranking by Mean Score for Reading, Mathematics and Science

No	Country	Reading	No	Country	Mathematics	No	Country	Science
1	Shanghai-China	556	1	Shanghai-China	600	1	Shanghai-China	575
2	Korea	539	2	Singapore	562	2	Finland	554
3	Finland	536	3	Hong Kong-China	555	3	Hong Kong-China	549
4	Hong Kong-China	533	4	Korea	546	4	Singapore	542
5	Singapore	526	5	Chinese Taipei	543	5	Japan	539
6	Canada	524	6	Finland	541	6	Korea	538
7	New Zealand	521	7	Liechtenstein	536	7	New Zealand	532
8	Japan	520	8	Switzerland	534	8	Canada	529
9	Australia	515	9	Japan	529	9	Estonia	528
10	Netherlands	508	10	Canada	527	10	Australia	527
11	Belgium	506	11	Netherlands	526	11	Netherlands	522
12	Norway	503	12	Macao-China	525	12	Chinese Taipei	520
13	Estonia	501	13	New Zealand	519	13	Germany	520
14	Switzerland	501	14	Belgium	515	14	Liechtenstein	520
15	Poland	500	15	Australia	514	15	Switzerland	517
16	Iceland	500	16	Germany	513	16	United Kingdom	514
17	United States	500	17	Estonia	512	17	Slovenia	512
18	Liechtenstein	499	18	Iceland	507	18	Macao-China	511
19	Sweden	497	19	Denmark	503	19	Poland	508
20	Germany	497	20	Slovenia	501	20	Ireland	508
21	Ireland	496	21	Norway	498	21	Belgium	507
22	France	496	22	France	497	22	Hungary	503
23	Chinese Taipei	495	23	Slovak Republic	497	23	United States	502
24	Denmark	495	24	Austria	496	24	OECD average	501
25	United Kingdom	494	25	OECD average	496	24	Czech Republic	500
26	Hungary	494	25	Poland	495	25	Norway	500
26	OECD average	493	26	Sweden	494	26	Denmark	499
27	Portugal	489	27	Czech Republic	493	27	France	498
28	Macao-China	487	28	United Kingdom	492	28	Iceland	496
29	Italy	486	29	Hungary	490	29	Sweden	495
30	Latvia	484	30	Luxembourg	489	30	Austria	494
31	Slovenia	483	31	United States	487	31	Latvia	494
32	Greece	483	32	Ireland	487	32	Portugal	493
33	Spain	481	33	Portugal	487	33	Lithuania	491
34	Czech Republic	478	34	Spain	483	34	Slovak Republic	490
35	Slovak Republic	477	35	Italy	483	35	Italy	489
36	Croatia	476	36	Latvia	482	36	Spain	488
37	Israel	474	37	Lithuania	477	37	Croatia	486
38	Luxembourg	472	38	Russian Federation	468	38	Luxembourg	484
39	Austria	470	39	Greece	466	39	Russian Federation	478
40	Lithuania	468	40	Croatia	460	40	Greece	470
41	Turkey	464	41	Dubai (UAE)	453	41	Dubai (UAE)	466
42	Dubai (UAE)	459	42	Israel	447	42	Israel	455
43	Russian Federation	459	43	Turkey	445	43	Turkey	454
44	Chile	449	44	Serbia	442	44	Chile	447
45	Serbia	442	45	Azerbaijan	431	45	Serbia	443
46	Bulgaria	429	46	Bulgaria	428	46	Bulgaria	439
47	Uruguay	426	47	Romania	427	47	Romania	428
48	Mexico	425	48	Uruguay	427	48	Uruguay	427
49	Romania	424	49	Chile	421	49	Thailand	425
50	Thailand	421	50	Thailand	419	50	Mexico	416
51	Trinidad and Tobago	416	51	Mexico	419	51	Jordan	415
52	Colombia	413	52	Trinidad and Tobago	414	52	Trinidad and Tobago	410
53	Brazil	412	53	Kazakhstan	405	53	Brazil	405
54	Montenegro	408	54	Montenegro	403	54	Colombia	402
55	Jordan	405	55	Argentina	388	55	Montenegro	401
56	Tunisia	404	56	Jordan	387	56	Argentina	401
57	Indonesia	402	57	Brazil	386	57	Tunisia	401
58	Argentina	398	58	Colombia	381	58	Kazakhstan	400
59	Kazakhstan	390	59	Albania	377	59	Albania	391
60	Albania	385	60	Tunisia	371	60	Indonesia	383
61	Qatar	372	61	Indonesia	371	61	Qatar	379
62	Panama	371	62	Qatar	368	62	Panama	376
63	Peru	370	63	Peru	365	63	Azerbaijan	373
64	Azerbaijan	362	64	Panama	360	64	Peru	369
65	Kyrgyzstan	314	65	Kyrgyzstan	331	65	Kyrgyzstan	330

Source: OECD PISA 2009 database

Not statistically significantly different from OECD average

Not statistically significantly different from Singapore

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School Stories on PISA 2009

READING PROGRAMMES IMPLEMENTED IN SCHOOLS

S/N	Name and School	Contact Info	Remarks
1	Mrs Josephine Simon HOD/EL Mdm Nur Ashikin Level Head/EL Nan Chiau Primary School	9299 8195 8201 2757	<p>Nan Chiau Primary School has reading programmes that require the involvement of the children, teachers and parents. These programmes are designed to promote reading among the students.</p> <p><u>Programmes:</u></p> <ul style="list-style-type: none">• Storytime: Teachers take turns to read to Primary 1 and 2 children for 10 minutes in the hall.• Language Appreciation Programme: Teachers take turns to show a story available online and ask students questions based on the story. Teachers also read part of the story to the children and encourage them to find out what happens in the story by borrowing the book.• Little Red Dot: Primary 3 to 6 pupils subscribe to this weekly publication which comes bundled with <i>The Straits Times</i> every Tuesday. Teachers plan language activities and discussion sessions on articles read.• Lit-Up programme: Primary 4 to Primary 6 children are tasked to read a chosen literature book for their respective levels. Primary 5 and 6 Foundation pupils will read selected books from the Fast Forward Reader series. Teachers subsequently plan language activities and discussion sessions for the students to reinforce the messages of the story.• World Book Day: On this day, Vice-Principals and various Heads of Department are invited to read to the children and talk about the importance of reading.• Book reviews: To encourage the pupils to reflect on the books they have

			<p>read, badges are given out to students who reach the targeted number of book reviews a year/term.</p> <ul style="list-style-type: none"> Accelerated Reader Programme: Primary 4 and 5 children subscribe to this web-based programme which tracks pupils' reading proficiency and comprehension through a series of online quizzes. Teachers motivate pupils to read more and improve their reading levels by rewarding them with tokens when they achieve the targets set according to their various reading abilities. Parents can also track their children's reading progress online.
2	<p>Mrs Shirley Teo HOD/EL</p> <p>Mr Ong Kong Hong Principal</p> <p>Teck Whye Secondary School</p>	<p>Office: 67691386 (Ext: 831) HP: 97633949</p> <p>Office: 67691386 (Ext: 801) HP: 98415273</p>	<p>Teck Whye Secondary School has a school-wide reading programme, which has been in place for four years. Known as the DEAR – Drop Everything and Read – Programme, it is based on the belief that reading is a basic and core life skill that students must possess and the only way to help them read better is to read more and frequently. The programme was deemed necessary as only about one in five students in the school spoke English predominantly at home.</p> <p>Each morning, students and teachers spend 15 minutes reading a range of reading materials, which are subsequently used in the classrooms to further sustain the interest of the students. <i>The Straits Times</i> and vernacular newspapers are complemented with different magazines such as <i>Asian Geographic</i>, <i>Readers Digest</i>, and <i>Present Perfect</i> to meet the different needs and interests of our students. Students also have fiction books with them at all times.</p> <p>Building a whole-school reading culture requires school-wide support. In the initial stages of the programme, a period called 'Endurance Reading' is set aside, where students have to learn to sit undistracted for 15 minutes and focus on reading. This is to ensure that the morning reading environment is as quiet and conducive as possible. Teachers also have to read together with students. The school then progresses from the 'Endurance Reading' stage to the 'Engaged Reading' stage when the students are more interested in reading.</p>

			<p>The school also has a “Multiliteracies in the Teaching of the English Language” programme. Taking into account the need to help the students develop the capacity to produce, read, and interpret spoken language, print, online and multimedia texts, the programme integrates technology (video cameras and video-editing software) and storyboarding (writing of narratives and construction of story-boards) to enhance the learning of the English Language. Following successful pilots, it is now conducted for Secondary 1 to 3 Express and N(A) classes.</p>
3	<p>Mdm Ong Fei Min Vice-Principal</p> <p>Ms Margaret Teo Siew Hua HOD/EL</p> <p>Hillgrove Secondary School</p>	<p>9235 9791(hp)</p> <p>63102779 (H)</p>	<p>Apart from the Uninterrupted Sustained Silent Reading (USSR), which is a 20-minute reading period conducted on Mondays, Wednesdays and Thursdays, Hillgrove Secondary School has in place a programme called READ@MRL for its weaker students. In this programme, the teachers prepare customized materials and exercises for the pupils to read during the USSR periods.</p> <p>The school also has a Reading Extensively and Progressively (REAP) programme, where suitable magazines and/or newspapers are selected for all levels and streams. A Workshop on Reading for Pleasure is also conducted for all Secondary 1 pupils to encourage them to pick up the habit of reading. The workshop is a one-off, two-hour session conducted in the school library. It is designed to highlight to students the benefits and importance of reading. During the workshop, the students are introduced to different writers and books suitable for their level. Games related to the reading materials are conducted around the library and students also take part in other activities, such as storytelling. The objective of these activities is to show that reading is an enjoyable activity and the school hopes to eventually encourage its students to pick up the habit of borrowing books from the school library.</p>

Additional Contact

S/N	Name	Contact Info
4	Dr Elizabeth Pang, Programme Director, Literacy Development, Curriculum Planning and Development Division, MOE	9070 4575

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