

POKFULAM ROAD HONG KONG CHINA 中國香港 薄扶林道 THE UNIVERSITY OF HONG KONG Faculty of Education 香港大學教育學院

Ms Queenie Wong Tel: (852) 2219 4270 Fax: (852) 2540 6360 Email: qlpwong@hku.hk

Press Release

Progress in International Reading Literacy Study (PIRLS) 2011 International Report: Hong Kong Section

Principal Investigator : Professor Tse Shek Kam

Co-Investigators: Dr. Lam Wai Ip, Dr. Loh Ka Yee, Dr. Cheung Wai Ming Researchers: Hui Sau Yan, Ng Hung Wai

Faculty of Education, The University of Hong Kong

Methodology of the Study

- The Progress in International Reading Literacy Study (PIRLS), coordinated by the International Association for the Evaluation of Educational Achievement, is an international comparative study of the reading literacy standards, reading behaviour and attitudes of fourth-grade students around the world.
- Using a stratified random sampling system, one class of fourth-grade students in 132 primary schools in Hong Kong was selected to participate in this five-yearly cycle of PIRLS. The students' reading comprehension of two separate passages in the Chinese language was assessed: one an information-giving passage (descriptions, instructions, data and tables), and the other a literary, narrative passage (stories, poems and fables).
- Testing was carried out from April to June, 2011. Students, their parents or guardians, Chinese Language teachers and school principals of the participating schools were invited to complete questionnaires. The study set out to examine how students' attitudes towards reading, their home environment, school environment, school curriculum and pedagogy had influenced their reading proficiency.
- The sample of Hong Kong personnel participating in the 2011 study comprised 4,122 students, 3,600 parents, 137 Chinese Language teachers and 132 school principals. Some 47% of the students were boys and 53% were girls.

The data from the tests and questionnaires in 2011 were compared against the previous results gathered from Hong Kong in 2001 and 2006.

1. The international ranking of Hong Kong Primary 4 (P4) students' reading proficiency and purposes

1.1. P4 students in Hong Kong came first in the 2011 round of student assessment with an average score of 571. Students from Russia and Finland came second, with an average score of 568, followed by students from Singapore with an average score of 567. Students from Chinese Taipei ranked seventh, with an average score of 553. The average international score was set at 500. In PIRLS 2006, Hong Kong students came second with an average reading score of 564. In the 2001 cycle of assessment, they had ranked fourteenth with an average score of 528, the same level as students from Russia and Singapore.

1.2 In the 2011 cycle of assessment, Hong Kong P4 students gained an average score of 578 for their reading of informational texts, and 565 for comprehending literary texts. Their ability to comprehend informational texts was better than their ability to understand literary texts. The ability of reading informational text of students is even the best in the study, reflecting Hong Kong's standing as an information city. In the 2006 cycle of assessment, Hong Kong P4 students had an average score of 568 for comprehending informational texts and 557 for literary texts. Since 2006, Hong Kong students have made significant progress in understanding informational texts and slight but steady progress in comprehending literary texts. In PIRLS 2001, the average attainment scores for comprehending informational and literary texts were 537 and 520 respectively.

1.3 In the 2011 assessment, Hong Kong P4 students gained an average score of 578 for their ability to use higher order reading skills (integrating and evaluating), and 562 for deploying lower order skills (retrieving information and making straightforward inferences). In the 2006 and 2001 cycles of assessment, their average scores were 566 and 530 on tasks calling for the use of higher order reading skills, and 561 and 525 respectively for using lower order skills.

1.4 In the 2011 round of assessment, the average reading score of girls was better than that of boys with a score of 579 for girls and 563 for boys, a difference of 16 points. In 2006, the girls' average reading attainment was 569 marks, 10 points higher than that of boys (559 marks). In 2001 the difference had been 19 points, with girls scoring 538 marks and boys 519. In other words, the gender gap had narrowed in 2006 but had widened again in 2011.

PIRLS sets students along a four-point benchmark achievement scale of international relevance: the `Advanced' international benchmark (625 or above), the `High' international benchmark (550 to 624), the `Intermediate' international benchmark (475 to 549), and the `Low' international benchmark (400 to 474).

1.5 In the 2011 assessments, the proportion of Hong Kong P4 students attaining the 'Advanced' benchmark was 18%, a 3% average points increase since 2006. The corresponding proportions for Singapore and Russia were 24% and 19% respectively, and for Chinese Taipei it stood at 13%. In the 2006 PIRLS assessment, the proportion of Hong Kong P4 students reaching the Advanced benchmark was 15%, smaller than the figure of 19% for students from Singapore and Russia. The data suggest that, although the proportion of students reaching the 'Advanced' benchmark in Hong Kong had increased from 2006 to 2011, the increase had been smaller than the corresponding increases for Singapore and Russia. On the other hand, the 6% figure for Hong Kong low achievers (at 'Low' and 'Intermediate' benchmarks) was about the same as the 7% figure for 2006.

1.6 In PIRLS 2011, a significant increase was found in the percentage of girls who reached the Advanced international benchmark, from the 16% figure in PIRLS 2006 to one of 21% in PIRLS 2011. In contrast, the percentage of boys scoring 475 or below was found to have increased to 9% compared to the figure of 7% in PIRLS 2006. The rising percentage score gains for female readers Hong Kong primary schools partly accounts for the improvement in Hong Kong students' overall reading attainment.

2. Students' interest, motivation and confidence in reading

2.1 Students' attitudes toward reading were gauged on the basis of their responses to the PIRLS questionnaire. The questionnaire had asked them three aspects about their reading attitudes: whether they liked reading; the strength of their motivation to read; and their confidence in their own reading.

2.2 Regarding students' interest in reading, the study found that 21% of Hong Kong students had said that they liked reading, these students gaining an average reading performance of 596 marks for the test. The percentage of students who said that they somewhat liked reading was 62% and their average attainment was 568 marks. For the remaining 16% of the students (who had said that they did not like reading), their average score was 550, the lowest for any group.

2.3 Regarding students' motivation towards reading, the average score was 577 for the 52% of the Hong Kong sample who said that they felt motivated to read. For the 34% of students identified as being somewhat motivated, the average score was 570. The

average score was 551 for the 15% of students identified as feeling unmotivated about reading.

2.4 Regarding students' confidence in their reading, the 20% of students who said they were confident in reading had an average attainment score of 601. The 62% of students who said they were "somewhat confident" had an average score of 571. The 18% of students saying they were not confident in reading had an average score of 538. This pattern was similar to the ones found for students in the Asian countries of Singapore and Chinese Taipei.

2.5 Regarding students' engagement in reading lessons, the 24% of Hong Kong P4 students identified as being engaged in reading lessons had an average score of 578. The 58% saying they were somewhat engaged had an average score of 571. The 18% saying they were not very engaged had an average score of 563. In this respect, Hong Kong ranked 42 among the participating countries or regions internationally, lower than both Singapore and Chinese Taipei.

2.6 The figures suggest that Hong Kong students' reading attainment is strongly related to their reading attitudes, determined on the basis of whether they like reading, how motivated they feel about reading, their confidence in their reading ability and how engaged they feel in reading lessons. In all cases, the trend was for students with stronger attitudes in these areas to gain higher PIRLS reading scores.

2.7 However, comparing with other countries and regions, students were ranked 39th in terms of liking reading; 45th in their motivation towards reading; 44th in their reading confidence; and 42nd in feeling engaged in reading lessons. These figures reflect the impression gained by schools that Hong Kong students do not like reading for fun or enjoyment. Their high reading achievement arises from the contribution of other factors.

3. Progress in approaches to teaching reading and the pertinence of the reading curriculum

3.1 In the PIRLS 2011 survey, Hong Kong primary teachers as a whole were found to use textbooks as the most frequently used reading resource in Chinese reading lessons. Specifically, 96% of the teachers used textbooks as the key resource (4% more than in PIRLS 2006), 69% of the teachers saying that they also used children's reading series as supplementary material. In terms of the reading curriculum adhered to in school, the reading attainment of students was highest (average of 566 marks) where schools were using their own school-based curriculum.

3.2 The results reflect the impression that school initiatives that promoting reading implemented by schools had had a positive impact on students' reading achievement.

These initiatives include extra sessions of reading instruction (in addition to regular Chinese Language lesson), the presence of reading clubs in the school, morning or lunch reading sessions, the involvement of parents in promoting students' reading and reading across curricula.

3.3 Regarding the choice of instructional objectives and favoured methods, the Hong Kong teachers surveyed in PIRLS 2011 said that they placed considerable emphasis on frequently teaching reading comprehension strategies. Specifically, all of the teachers said they repeatedly required students to locate information from within text; 96% said they engaged students every week in identifying the main ideas in text and in supporting their understanding of what they had read; and over 80% asked students to compare what they had read with their own experiences, make generalizations, draw inferences and identify the writer's perspective or intentions. The study found that the incidence of Hong Kong teachers' engagement in the teaching of reading strategies was lower than that for teachers in Singapore and Russia, but was greater than that for teachers in Taiwan. Hong Kong primary schools teachers were clearly using a wider range of pedagogic approaches in reading lessons.

3.4 Regarding the use of computers and electronic devices to assist instruction and learning, the 45% of participating teachers who said that they used computers in teaching and students' learning had students who scored an average of 569 on the PIRLS 2011 test. In contrast, students of teachers who said they did not use computers in their teaching had an average score of 572 marks. With regard to computer-assisted instructional activities, less than 40% of the teachers said they carried out monthly computer-based instructional activities; 38% said they had students use computers to search for information; 36% of students read stories and other types of computer supplied information; 34% used the computer to develop reading strategies; and 10% accessed computers when writing stories or other types of prose. Although the evidence of teachers increasingly employing computer-assisted instruction to help students acquire reading strategies, they need more support in using computer to facilitate students' higher-order reading strategies.

3.5 It was found that the emphasis placed by schools on academic success had had a positive impact on students' reading attainment, 58% of teachers saying that their school placed high importance on students' gaining high academic success. The 7% schools saying that they robustly stressed students' academic success had students who performed very well indeed, with an average score of 583.

4. Home literacy activities, availability of educational resources in the home and the interest of Hong Kong parents in reading

4.1 The study found that parental involvement in helping their children's literacy

development by engaging them in literacy-related activities early in their infancy and before starting school has positive impact on reading attainment. The PIRLS 2011 survey also found that the more the students had engaged in literacy-related activities at home before entering school, the higher their subsequent reading attainment. It was also found that, compared against the PIRLS 2006 profiles, parents in the 2011 survey had generally used more literacy-related activities with their children in their pre-school days. Analyses of the incidence of parents using PIRLS-specified 'early literacy activities' showed that more and more parents had said that they had used the nine activities given by PIRLS as examples. This increasing trend was statistically significant.

4.2 In PIRLS 2011, home educational resources in Hong Kong were found to be lower than the mean level of provision in homes elsewhere in the world. The figure of 12% of families saying they had many educational resources in Hong Kong was below the mean of 18% for the rest of the world. The Hong Kong pattern of provision ranked 20th in the world. Only 9% of families had said they had many resources in PIRLS 2006, the PIRLS 2011 survey revealing that the percentage of families with many home resources for learning had increased only slightly. It is important to note that 8% of the Hong Kong families surveyed said that they possessed few educational resources in the home. They were ranked eleventh internationally.

4.3 The PIRLS 2011 data indicate that the reading attainment level of students from families with low incomes (less than HK\$7000 per month) was lower than that for peers in the same classroom from high income families.

4.4 Some 11% of the Hong Kong families said they had over 100 children's books in the home; 17% said they had 51-100 books; and 25% said they had 26-50 books. Compared to the findings in PIRLS 2006, there were 9% saying they had over 100 books, 13% saying they had between 51 and 100 books and 25% claiming to have 26-50 books. In other words, more children's books were found in Hong Kong homes in PIRLS 2011. An important finding in PIRLS 2011 is that the number of books in the home is significantly related to individual children's reading attainment: the greater the number of children's books in the home, the better the students' reading performance. The data derived from 2001, 2006 and 2011 indicated that students whose family had 26-50 children's books could attain the Hong Kong average standard of reading proficiency.

The positive impact on students' reading attainment in all of PIRLS surveys of the number of books has been a unswerving finding. Students from homes in Hong Kong with 26-50 children's books had a mean reading score of 575 on the reading test on all three rounds of PIRLS testing.

4.5 In PIRLS 2011, Hong Kong parents were found to have the lowest interest in reading among parents around the world. Only 14% of the parents said they liked reading, the children of these parents having an average reading score of 589. Some 72% of the parents said they had some interest in reading and their children's average

reading score was 570. The children of the 14% of parents who disliked reading were the poorest readers in Hong Kong, with an average score of 566 marks.

4.6 Despite the above tendencies, the data reveal a positive association between parental expectations about academic success and their children's reading achievements. Some 27% of Hong Kong parents said they hoped their children would qualify for university-level or other higher education, the children of these parents having an average score of 584 on the reading test. Some 62% of the parents expected their children to complete university-level education, their children gaining an average of 574 on the reading test. The trend was for students with parents who had lowly parental expectations to score poorly on PIRLS 2011.

4.7 In Hong Kong society, the provision of tutoring for children after school is an increasingly common form of educational investment by parents. In PIRLS 2011, for instance, half of the parents with a family income of no more than 7,000 HK dollars said they had paid for a tutor to help their children with their Chinese and mathematics homework. The PIRLS 2011 analyses revealed that students who had had such extra tuition after school fared no better than peers who had had no such tutoring.

4.8 In short, school and teacher factors were found to have a positive influence on the development of students' reading ability, family background playing an important part in fostering students' reading achievements as well. The findings in PIRLS 2011 suggest that, in order to enhance their children's reading ability, Hong Kong parents need to possess positive reading attitudes, to be interested in reading and to create for their children a positive home literacy environment. To do this, they need to provide reading material and books in the home that interest their children, and to encourage literacy activities at home.

5. Conclusions

5.1 Remarkable improvements in Hong Kong primary students' reading comprehension were revealed in the 2011 PIRLS survey. These gains reflect teaching approaches and the contribution made by primary schools, Chinese language teachers, parents and the education authorities to raise the standard of students' reading comprehension.

5.2 The percentage of students with scores above the PIRLS average reading attainment scale has increased, evidence of the success of Hong Kong schools in fostering students' reading attainment across the reading achievement spectrum.

5.3 The main reasons to explain the successful performance of Hong Kong Primary 4 students in PIRLS 2011 include the following:

• The percentage of students who had reached the Advanced international benchmark (score>625) had significantly increased.

- The percentage of girls who reach the Advanced international benchmark had significantly increased, which has positive impact on the overall increase of attainment in this study.
- Early literacy experience and early home literacy activities had had a positive impact on students' reading attainment.
- Various school-based reading had had a positive impact on students' reading attainment.
- The emphasis placed by the school on academic success had a positive impact on students' reading attainment.

5.4 However, the gender gap between the performance of male and female students had widened in the 2011 cycle of PIRLS, with girls making greater progress than boys. Schools are asked to seek a balance in reading material and classroom activities that appeals particularly to boys or to girls, and to ensure that the range of books in classroom and school libraries is attractive both to boys and girls. It is also suggested that schools liaise with parents to suggest how they, fathers and mothers, might personally assist their children to improve their literacy. Parents need to serve as examples for their children so as to nurture their reading interest and foster their reading ability. Or else, their future competitive strengths will be impaired.

5.5 In spite of the impressive improvement in Hong Kong students' overall reading attainment between the 2006 and 2011 cycles of PIRLS, the children's average level of interest in reading had appreciably decreased. Schools, families and education authorities should commit themselves to addressing this situation. Interest in reading will fall further if students are not obtaining pleasure from their reading. In-service training and experiences sharing should also be provided by education authority to help schools to work on this important aspect of reading development.

5.6 The survey analyses show that students did best in schools that had taken steps towards constructing a reading curriculum that appeals to and suits children in their own particular school. The Hong Kong education authorities and institutions might provide teacher training that helps school to construct their own school-based programmes that allow for the needs of all students to be met and for attainment targets to be achieved by all.

5.7 Analyses of the data did not reveal any attainment advantage in favour of students who had received extra tuition outside school. Parents are hence advised to reconsider the effectiveness and the benefits of provision of such resources and to allow more time for their children to read.

5.8 With regard to the influence of home factors on students' reading attainments, it was found that the availability of books at home and student reading activities guided by parents (e.g. storytelling and visiting libraries and bookstores) had a great impact on students' reading attainment. In terms of household income, the study revealed that students from

higher income groups had better reading performance than those from lower income groups. A possible reason for this might be that working parents have little time to devote to nurturing their children's reading literacy. In this regard, the government might offer a subsidy to such students in order to improve their children's reading performance and to minimise obstacles to their future development.

5.9 Internationally, Hong Kong parents' interest in reading, a factor that PIRLS had demonstrated to be positively influencing children's reading attitudes and attainment, ranked bottom globally. To foster parents' reading interest, the Education Bureau should organise talks on reading and to strongly encourage parents to participate in reading activities. It helps to promote reading interest of parents on one hand and equip them with the strategies of family reading on the other hand.

For enquiries concerning PIRLS 2011, please contact:

Professor Tse Shek Kam, Faculty of Education, HKU Tel : 2859-1960 Fax : 2540-6360 Email : <u>sktse@hku.hk</u>

For media enquiries, please contact:

Ms. Queenie Wong Development and Communications Manager, Faculty of Education, HKU Tel: 2219 4270 Mobile: 9220 5840 Fax: 2540 6360 Email: <u>qlpwong@hku.hk</u>

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Note for the photo:

Professor Tse Shek Kam, Professor, Faculty of Education, HKU (left); Professor Frederick Leung, Professor, Faculty of Education, HKU (middle) and Dr Alice Wong, Associate Professor, Faculty of Education, HKU (right).

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Table 1Progress in International Reading Literacy Study (PIRLS) 2011Reading achievement of Hong Kong and selected countries

Ranking	Country/Region	Avg. Scale Score
1	Hong Kong SAR 米	571
2	Russian Federation	568
4	Singapore	567
5	United States	556
7	Chinese Taipei	553
8	England	552
PIRLS Scale Centerpoint		500
36	Indonesia	428

Table 2Progress in International Reading Literacy Study (PIRLS) 2011Reading achievement of 10 top-performing countries or regions

Ranking	Country/Region	Avg. Scale Score
1	Hong Kong SAR 米	571
2	Russian Federation	568
2	Finland	568
3	Singapore	567
4	North Ireland	558
5	United States	556
6	Denmark	554
7	Croatia	553
7	Chinese Taipei	553
8	Ireland	552
8	England	552
PIRLS Sca	le Centerpoint	500

Table 3Progress in International Reading Literacy Study (PIRLS) 2001, 2006& 2011Trend Study:
Reading achievement of Hong Kong and selected countries

PIRLS 2001

Ranking	Country/Region	Avg. Scale Score
1	Sweden	561
3	England	553
9	United States	542
14	Russian Federation	528
14	Hong Kong SAR 米	528
14	Singapore	528
PIRLS Scale Centerpoint		500

PIRLS 2006

Ranking	Country/Region	Avg. Scale Score
1	Russian Federation	565
2	Hong Kong SAR 米	564
4	Singapore	558
10	Sweden	549
18	United States	540
19	England	539
22	Chinese Taipei	535
PIRLS Sca	le Centerpoint	500

PIRLS 2011

Ranking	Country/Region	Avg. Scale Score
1	Hong Kong SAR *	571
2	Russian Federation	568
3	Singapore	567
5	United States	556
7	Chinese Taipei	553
8	England	552
12	Sweden	542
PIRLS Sca	le Centerpoint	500

Table 4Progress in International Reading Literacy Study (PIRLS) 2001, 2006 & 2011Trend Study:
Gender difference in Reading of Hong Kong fourth graders

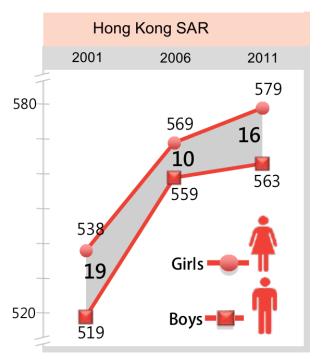


Table 5 Progress in International Reading Literacy Study (PIRLS) 2011
Students reach International Benchmark of Reading Achievement in selected countries (%)

Country/Region	625 or above	550-624	475-549	400-474	400 or below
Singapore	24	38	25	10	3
Russian Federation	19	44	29	7	1
England	18	36	29	12	5
Hong Kong SAR *	18	49	26	6	1
United States	17	39	30	12	2
Chinese Taipei	13	42	32	11	2
International Avg.	8	36	36	15	5

Table 6Progress in International Reading Literacy Study (PIRLS) 2006 & 2011Trend Study:
Hong Kong Students reach International Benchmark of Reading Achievement (%)

Hong Kong SAR	625 or above	550-624	475-549	400-474	400 or below
PIRLS 2011	18	49	26	б	1
PIRLS 2006	15	47	30	7	2

Table 7Progress in International Reading Literacy Study (PIRLS) 2011Hong Kong primary schools with school-based reading related programs

Hong Kong SAR	School-based Reading programmes		
Yes	No. of School	130	
Tes	Avg. Score	566	
No	No. of School	1	
INO	Avg. Score	542	
Do not rospono	No. of School	1	
Do not respone	Avg. Score	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	

Table 8Progress in International Reading Literacy Study (PIRLS) 2011Hong Kong primary schools emphasis on academic success

Hong Kong SAR		School Emphasis on Academic Success
Very High Emphasis	% of Students	7
very righ Emphasis	Avg. Score	583
High Emphasic	% of Students	58
High Emphasis	Avg. Score	572
Medium Emphasis	% of Students	36
	Avg. Score	565

Progress in International Reading Literacy Study (PIRLS) 2011 Table 9 Early literacy activities before beginning Primary School for Hong Kong and selected countries

Country/Region		Often	Sometimes	Never or almost never
Russian Federation	% of Students	61	38	1
Russian Federation	Avg. Score	576	558	~~
Cinganara	% of Students	26	69	5
Singapore	Avg. Score	595	561	543
Chinoso Tainai	% of Students	14	76	10
Chinese Taipei	Avg. Score	577	553	526
Hong Kong CAD *	% of Students	12	80	8
Hong Kong SAR 米	Avg. Score	588	571	560
International Avg.	% of Students	37	60	3
	Avg. Score	529	506	430

Table 10 Progress in International Reading Literacy Study (PIRLS) 2011 Ho

Iome Resources for Lea	rning for Hong	g Kong and sele	cted countries
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Country/Region		Many Resources	Some Resources	Few Resources
Russian Federation	% of Students	16	82	3
Russian rederation	Avg. Score	611	562	520
Singaporo	% of Students	24	74	2
Singapore	Avg. Score	617	559	~~
Chinasa Tainai	% of Students	18	76	б
Chinese Taipei	Avg. Score	591	548	515
Hong Kong SAR *	% of Students	12	80	8
	Avg. Score	589	573	556
International Avg.	% of Students	18	73	9
	Avg. Score	571	510	448

Table 11Progress in International Reading Literacy Study (PIRLS) 2011Household monthly income (HK\$)

Hong Kong SAR	Household monthly income	
\$7,000 or below	% of Students	10
	Avg. Score	564
\$7,001- \$14,000	% of Students	31
	Avg. Score	570
\$14,001 - \$21,000	% of Students	8
	Avg. Score	570
\$21,001 - \$28,000	% of Students	10
	Avg. Score	575
\$28,001 - \$35,000	% of Students	9
	Avg. Score	576
\$35,001 or above	% of Students	22
	Avg. Score	579

Table 12Progress in International Reading Literacy Study (PIRLS) 2011Students with private tuition

Hong Kong SAR	Attending Tutorials	
Yes	% of Students	57
	Avg. Score	564
No	% of Students	38
	Avg. Score	586
Do not respone	% of Students	5
	Avg. Score	~~

Table 13Progress in International Reading Literacy Study (PIRLS) 2011Students with private tuition by Household monthly income

Household monthly income		% of Students
\$7,000 or below	Attend tutorials	51
	Not attend	49
\$7,001- \$14,000	Attend tutorials	55
	Not attend	45
\$14,001 - \$21,000	Attend tutorials	60
	Not attend	40
\$21,001 - \$28,000	Attend tutorials	67
	Not attend	33
\$28,001 - \$35,000	Attend tutorials	65
	Not attend	35
\$35,001 or above	Attend tutorials	63
	Not attend	37