



Key findings from research on the Primary Years Programme

The International Baccalaureate (IB) Global Research department collaborates with universities and independent research institutions worldwide to produce rigorous studies examining the impact and outcomes of the IB’s four programmes: the Primary Years Programme (PYP), the Middle Years Programme (MYP), the Diploma Programme (DP) and the Career-related Programme (CP). The findings below come from recent studies relating to the PYP.

One of the conclusions from a **global** study on the practice of **transdisciplinary teaching and learning** (teaching and learning that transcends disciplines) in the PYP was that students who experience an integrated curriculum are as successful academically, and are often more successful, than their peers who are not taught in a transdisciplinary manner. A review of the literature also indicated that a transdisciplinary approach can help students to develop skills and values that are necessary to be successful in a globalized world, such as international-mindedness and communication and critical thinking skills (Drake et al 2015).

To examine the **science literacy** of Year 6 PYP students in **Australia**, a study used data from the 2012 National Assessment Program in Science Literacy (NAP-SL) to compare PYP student performance with a national sample of primary school students. The science proficiency level of PYP students was substantially higher than the national level: 83.3% of PYP students tested at or above the suggested Year 6 proficiency level (3.2), compared with 51.4% of the national sample of students. Furthermore, 23.6% of PYP students performed at proficiency level 3.3 or above, compared with 9.3% for the national sample (Campbell et al 2014).

Percentage of national sample at proficiency level	Proficiency level	Percentage of PYP students at proficiency level
0.3%	Level 4 and above	1.0%
9.0%	Level 3.3	22.6%
42.1%	Level 3.2	59.7%
39.6%	Level 3.1	7.1%
9.0%	Level 2 and below	2.6%

Table 1: National sample and PYP proficiency levels

A study conducted in **Singapore and Australia** investigated child learning outcomes in the **early years** of the PYP. Researchers found that literacy skills at the four schools in this study were well developed; that children were performing at levels similar to or better in terms of school readiness; and

that children were developing learning skills at higher rates than a comparative sample (Morrissey et al 2014).

Exploring the **curriculum alignment** between the PYP and MYP and the national curriculum of **India**, curriculum analyses demonstrated clear similarities between the PYP and MYP and the Indian education system. Furthermore, there were many shared principles and aims, as well as framework compatibility, that should enable Indian IB World Schools to implement the PYP and MYP in a way that is well-matched with the aims, values and requirements of the Indian National Curriculum Framework and central education boards (UK NARIC 2016).

A **global** study in eight case schools examined the **assessment literacy** of PYP teachers as well as the **assessment cultures** within these schools. Interviews with PYP teachers and administrators revealed a holistic and ongoing approach to assessment within the schools. Researchers also noted a rich array of assessment activities and strategies, demonstrating a strong grasp of the evidence required to assess student growth in knowledge, understanding and skills (Toe et al 2016).

Researchers examined **student achievement** within 14 state and private PYP schools in **New Zealand** and also explored **curriculum alignment** between the PYP and the New Zealand Curriculum (NZC). Standardized test analysis indicated that achievement within the PYP schools generally exceeded achievement among schools with similar student populations in New Zealand. Additionally, while the NZC and PYP were largely compatible, there were a few points of difference, specifically an emphasis on international-mindedness, inquiry and action in the PYP (Kushner et al 2016).

A study in six **European countries** examined the links between **school leadership** (PYP principals and coordinators) and the implementation of the PYP. Survey findings indicated different perceptions of the role of the principal versus the coordinator: the principal was seen as being responsible for the overarching strategic elements of leadership and school culture while the coordinator was

For more information, please contact research@ibo.org or visit <http://www.ibo.org/research>.

Key findings from research on the Primary Years Programme

perceived as being primarily responsible for overseeing the work of teachers and day-to-day programme implementation. The study also indicated that the success of PYP implementation is likely to be enhanced when the PYP coordinator is part of the senior leadership team and has appropriate “time to lead” the induction and development of teachers (Day et al 2016).

In **Australia**, a study explored the **impacts of PYP implementation** on 13 Victorian government primary schools as well as **student outcomes** in a national assessment for reading and numeracy¹. The reading and numeracy results of the 13 PYP schools were higher than the Australian average in all cases, except for in one school for Year 5 in numeracy (Figure 1, Year 3 numeracy results). Furthermore, the students at PYP government schools, for the cohorts 2008–2010, 2009–2011 and 2010–2012, achieved higher levels in both reading and numeracy, in both Years 3 and 5, when compared to similar schools and Australian schools generally. Lastly, educators in the 13 schools believed the PYP had contributed to student learning and academic achievement, student development of learner profile attributes and student motivation (Gough et al 2014).

A mixed-methods case study in **Colombia** explored the **perceptions of administrators, teachers and students** within four PYP schools. Student interviews identified teachers as the primary drivers of their positive learning experiences. In an accompanying survey, 89.3% of PYP students indicated that they enjoyed being a student at their school while over 90% reported that they were proud to be a student of their school (Lester, Lochmiller 2015).

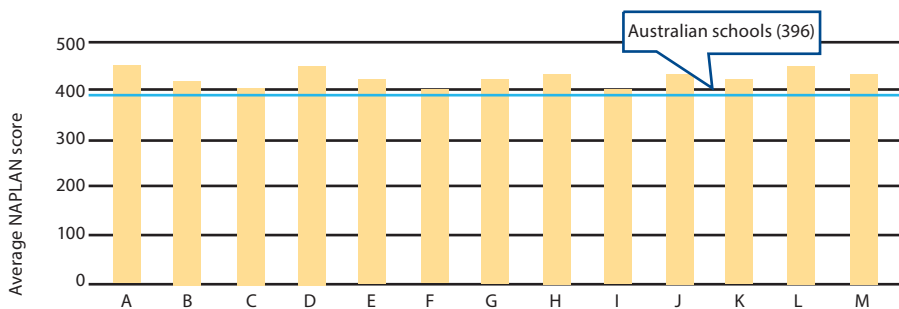
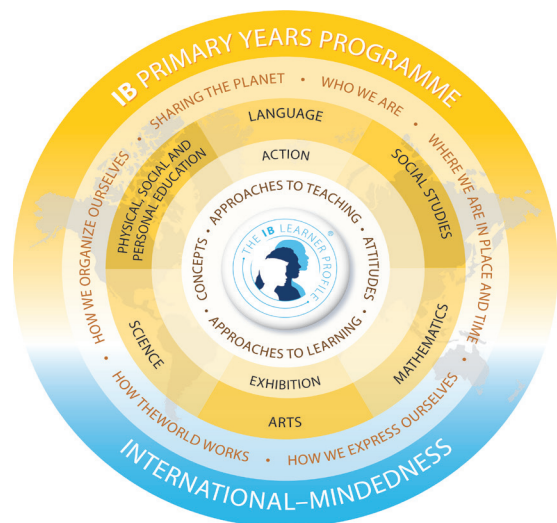


Figure 1: Average Year 3 NAPLAN scores for numeracy at the 13 PYP schools for 2012

References

- Campbell, C, Chittleborough, G, Jobling, W, Tytler R and Doig, B. 2014. *Science literacy in the International Baccalaureate Primary Years Programme (PYP): NAP-SL outcomes*. Melbourne, Australia. School of Education, Deakin University.
- Day, C, Townsend, A, Knight, R and Richardson, K. 2016. *School leadership in the Primary Years Programme*. Bethesda, MD, USA. International Baccalaureate Organization.
- Drake, SM, Savage, MJ, Reid, JL, Bernard, ML and Beres, J. 2015. *An exploration of the policy and practice of transdisciplinarity in the International Baccalaureate Primary Years Programme*. The Hague, Netherlands. International Baccalaureate Organization.
- Gough, A, Sharpley, B, Vander Pal, S and Griffiths, M. 2014. *The International Baccalaureate Primary Years Programme in Victorian Government primary schools, Australia*. Bethesda, MD, USA. International Baccalaureate Organization.
- Kushner, S, Cochise, A, Courtney, M, Sinnema, C and Brown, G. 2016. *International Baccalaureate Primary Years Programme in Aotearoa New Zealand: A case study in whole-school innovation*. Bethesda, MD, USA. International Baccalaureate Organization.
- Lester, JN and Lochmiller, CR. 2015. *A mixed-methods case study of International Baccalaureate Primary Years Programmes in four Colombian schools*. Bethesda, MD, USA. International Baccalaureate Organization.
- Morrissey, A, Rouse, E, Doig, B, Chao, E and Moss, J. 2014. *Early years education in the Primary Years Programme: Implementation strategies and programme outcomes*. Bethesda, MD, USA. International Baccalaureate Organization.
- Toe, D, Lang, J, Paatsch, L, Yim, B, Jobling, W, Doig, B and Aranda, G. 2016. *Assessment of student development and learning in International Baccalaureate Primary Years Programme schools*. The Hague, Netherlands. International Baccalaureate Organization.
- UK NARIC. 2016. *Comparative analysis of the International Baccalaureate Primary Years Programme (PYP) and Middle Years Programme (MYP) in the context of the Indian education system*. Bethesda, MD, USA. International Baccalaureate Organization.

¹National Assessment Program – Literacy and Numeracy (NAPLAN) for Year 3 and Year 5 students.