



## Key findings from research on the impact of IB programmes in the Asia-Pacific region

The International Baccalaureate (IB) 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), Middle Years Programme (MYP), Diploma Programme (DP) and Career-related Programme (CP). This resource provides a brief overview of key findings from recent studies from the Asia-Pacific region that were commissioned by IB Research.

Researchers investigated the **impacts of the early years of the PYP** at four case study schools—two in **Singapore** and two in **Australia**. Findings suggested that literacy skills at all sites were well developed; that children were performing similarly or better on a measure of school readiness (compared to a sample of Australian children); and that PYP students were developing learning skills at significantly higher rates than a comparative sample (Morrissey et al 2014).

A study in **New Zealand** examined **student performance** in 14 state and private schools in addition to **curriculum alignment** between the PYP and the New Zealand Curriculum (NZC). Standardized test analysis indicated that performance in the PYP schools generally exceeded performance in similar non-IB schools. The study also found that the PYP and NZC are largely compatible, although there were a few points of difference, specifically the PYP's emphasis on international-mindedness, inquiry and action (Kushner et al 2016).

In **Australia**, researchers explored the **impacts of PYP implementation** on 13 Victorian government primary schools as well as **student outcomes** on a national assessment for reading and numeracy<sup>1</sup>. The reading and numeracy results of the PYP government schools were higher than the Australian average in all cases, except for in one school in Year 5 numeracy (Figure 1 shows Year 3 numeracy results). Additionally, educators believed that the PYP had contributed to learning and academic performance, student motivation, and the development of IB learner profile attributes (Gough et al 2014).

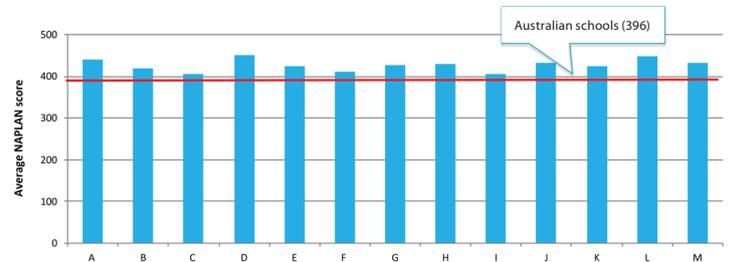


Figure 1. Average Year 3 NAPLAN scores for numeracy at the 13 PYP schools for 2012

To investigate the **impact of middle years curricula on student outcomes in the DP**, researchers compared students from 22 schools across **China, Hong Kong, India, Indonesia and Japan**. Former MYP students performed significantly better than non-MYP students in the total DP points earned, as well as in subject exams in language and literature, language acquisition, individuals and societies, and mathematics. The MYP students also reported using higher-order thinking skills, such as critical thinking and analytical skills, more frequently than their non-MYP peers (ACER 2015).

Researchers explored the impact of the DP in **China**, with a particular focus on student **preparation for university studies abroad**. Teachers and administrators in the five case study schools were confident that the DP provided first-rate university preparation due to the breadth and rigour of the programme. Quantitative findings indicated that, between the years of 2002–2012, 71.6% of the DP graduates attended one of the world's top 500 universities (Lee et al 2014).

<sup>1</sup>National Assessment Program—Literacy and Numeracy (NAPLAN) for Year 3 and Year 5 students.

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In 2011, the Japanese government announced plans to **implement a dual language DP** (Japanese and English) in 200 secondary schools in **Japan**. In comparison to non-DP students, DP students had higher self-ratings for being “internationally-minded” and had higher expectations of acquiring problem-solving and leadership skills while in high school (Yamamoto et al 2016).

At two leading universities in **East Asia** and one in **Australia**, researchers examined **post-secondary outcomes** and **critical thinking skills** of DP and non-DP alumni. While there was no significant difference in grade point average (GPA) between the two groups, in general, DP alumni reported higher capacities for a variety of critical thinking skills compared to their non-IB peers (see Figures 2 and 3). DP graduates were particularly confident in their capacity for cultural sensitivity, global-mindedness, critical thinking, leadership, and time management (Lee et al 2017).

Researchers conducted a **curricular comparison** of four **DP mathematics** courses along with five mathematics

qualifications from **around the world**, including two from the Asia-Pacific region—Singapore–Cambridge GCE A-levels and Gāokāo. Of the curricula investigated in this study, the DP offered the greatest number of mathematical course options for students with different needs. Additionally, based on the criteria used in this analysis, the IB’s further mathematics HL was determined to be the most cognitively demanding course of the five curricula examined (Alcántara 2016 and UK NARIC 2016).

A large-scale study that took place across two regions—**Asia-Pacific and Africa, Europe, Middle East**—explored the **impact of creativity, activity, service (CAS)** on DP students and schools. The study suggested that CAS contributes to changes in DP students in terms of their personal dispositions, behaviour, and interpersonal relationships. In particular, coordinators, students, and alumni believed that CAS helps students to become better at “taking on new challenges”, “learning to persevere”, and “developing better interpersonal skills” (Hayden et al 2017).

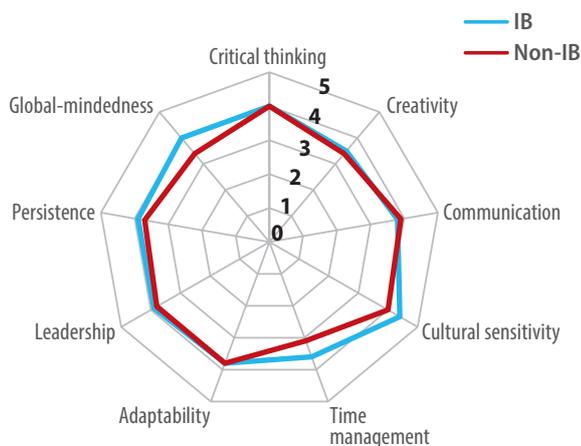


Figure 2. Perceived capacity for 21st century skills  
Note. n = 89 (University C in Australia)

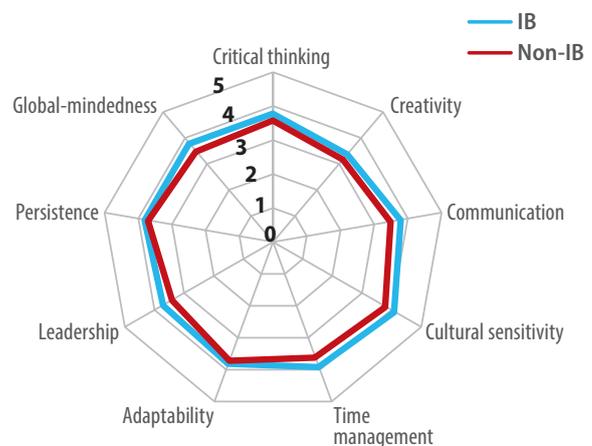


Figure 3. Perceived capacity for 21st century skills  
Note. n = 734 (University B in East Asia)

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