

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

The International Baccalaureate (IB) Global Research Department collaborates with universities and independent research organizations worldwide to produce rigorous studies examining the impact and outcomes of the IB's three programmes. Areas of inquiry include, but are not limited to: **standards alignment, programme implementation, the learner profile and student performance**. In addition, many researchers —completely independent of the IB —produce quality studies on the effects of IB programmes. This information sheet aims to provide a brief sampling of findings produced through recent independent studies as well as research conducted or commissioned by the IB. It does not attempt to represent all research on the IB available in the field, and as with all research, findings must be placed within the particular contexts in which the studies took place.

The findings below come from a sampling of research reports commissioned by the IB.

In the 2007—2009 sittings of the **ISA**¹, students at **international schools** with the Primary Years Programme (**PYP**) and/or Middle Years Programme (**MYP**) in the **Asia and Oceania**² region performed as well as or better than students at schools without the IB in 28 of 32 instances (See figure 1).

Stronger Performance	<ul style="list-style-type: none"> • Math Gr. 10 +++ • Writing B Gr. 10 ++ • Reading Gr. 4, 6, 7, 8; Writing A Gr. 4, 7, 8; • Writing B Gr. 3, 4, 6, 8 +
Similar Performance	<ul style="list-style-type: none"> • Math Gr. 3, 6, 7 • Reading Gr. 3, 5, 9, 10 • Writing A Gr. 3, 5, 6, 9, 10 • Writing B Gr. 3, 4, 6, 8
Weaker Performance	<ul style="list-style-type: none"> • Math Gr. 8 -- • Math Gr. 4, 5, 9

Figure 1. IB and non-IB student performance in Asia and Oceania. Note: A total of 32 comparisons were made (ie grades 3 to 10 times 4 domains). "+" indicates small effect size; "++", medium; "+++", large.

Case studies of **schools in Thailand, Vietnam, China and Hong Kong** that analysed how schools manage transitions **across the three IB programmes** highlighted how effective school leadership and management enabled schools to design and implement better transitions. Specifically, the case studies identified articulation, cross-programme involvement/interaction and staffing as success factors that contribute to coherence, consistency and student supports in programme transitions.

A comparative analysis of **course materials and assessments** of mathematics, physics, chemistry, biology, English, economics and history from the **DP**, Central Board of Secondary Education (CBSE) and Council for the Indian School Certificate Examination (CISCE) in **India** found that the stated aims and objectives, curriculum and assessment of the IB courses were often more comprehensive and exhaustive, and more likely to encourage multiple perspectives, the appreciation of different contexts and development of analytical, critical and evaluative abilities.

A follow-up to the previous **ISA** study included the primary years (grades 5 and 6) and secondary years (grades 9 and 10) **Student Learning and Wellbeing Questionnaire**, focusing on student values and attitudes, perceptions of school life, and social and emotional well-being. High proportions of agreement across all dimensions were observed among **PYP** and **MYP** students. A comparison of IB students (54% of which come from the Asia and Oceania region) and non-IB students show:

- PYP students had a moderately higher proportion of agreement across all four dimensions.
- MYP students had a slightly higher proportion of agreement in Social Connectedness and Deep Learning in both grades, and in Personal Development Outcome and Academic Outcome Orientation at grade 8.

A survey of **university staff in Australia and New Zealand** on their **perceptions of the IB Diploma** revealed high levels of agreement with the use of a range of assessment strategies, the breadth and depth of the curriculum and the three higher-level subjects. Many commented that the DP enhanced students' academic competence and capability, gave them experience of greater breadth and depth, provided an internationalized experience with emphasis on community engagement, should be more widely adopted, and provided university preparation as good as or better than the state or other certificates (See figure 2).

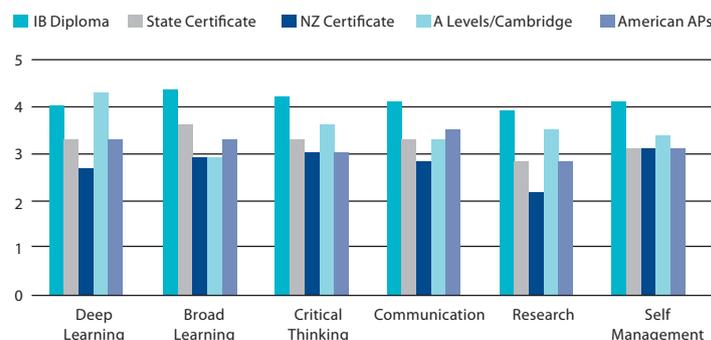


Figure 2. Perceived success of pre-university courses in developing student capabilities (average rating for each aspect)

¹The International Schools' Assessment (ISA), which measures grades 3 to 10 student performance in Mathematics, Reading, Narrative Writing and Expository Writing

²As defined by the Australian Council for Education Research (ACER).

The findings below come from a sampling of independent research reports, journal articles and dissertations written by individuals or groups not in collaboration with the IB.

In interviews, **Chinese students** enrolled in the **Diploma Programme** in an **Australian high school**, highlighted, despite challenges, a number of positive aspects of the DP, and had very positive dispositions towards the Creativity, Action and Service and Extended Essay components. Those students who were more successful in transitioning to the new environment did so by reviewing programme and class documents, standards and expectations, asking clarifying questions, and adapting to new modes of behavior (Gan 2009).

A thesis analysing the **leadership styles** used when implementing the IB in traditional schools in developing nations of **South Asia**, showed that although the schools were at varying stages of development, there was evidence to suggest that they shared the ideals of a professional learning community; a shared mission and vision; collective inquiry; collaborative teams; and an importance placed on action, experimentation, continued improvement and results (Mirza 2011).

A dissertation exploring the **perspectives of school leaders and teachers** on the **implementation** of the IB in **New Zealand** found that most introduced the IB to accommodate students of varying interests and abilities and improve the schools' market competitiveness. Those at PYP and MYP schools considered the curricula compatible and complementary with the national curriculum frameworks. School leaders indicated they were very satisfied with IB Professional Development, and felt the IB programmes influenced teachers to encourage thinking, facilitate students' independent learning, pursue deep understanding, emphasize connections between subjects and beyond classrooms, and promote international-mindedness (Hara 2011).

An investigation of the **linguistic and cultural demands** faced by **Chinese-speaking ESL students** studying UK A-levels or **DP Mathematics** at an international school in **Hong Kong** suggests the IB students have to write more explanations and justifications than their A-level peers. The investigation also suggests that ESL students in the IB need to develop a higher level of written mathematical discourse than would be needed in A-levels, while culturally the IB —with its international notation and lack of ethnic bias— seems to be more suitable than A-level for ESL students (Gibbs 2004).

A dissertation detailing a case study of a **Hong Kong** international **school** undergoing the **transition** from a national-based curriculum to the **PYP** examined the extent teachers learned and implemented the inquiry approach. Findings indicated that all teachers learned about the PYP and inquiry, how to better create curriculum, and how to apply best practices, but to different extents. Data indicated that teachers have varying levels of understanding of the PYP and inquiry, and some perceptions exist of not implementing the approach well enough, or not practicing critical reflection as much as they should. Knowledge of, engagement in, and attitude towards the PYP and inquiry were found to be salient factors that affected teacher learning (Mok McLeod 2009).

A survey, sent to **teachers** at international schools with both the **MYP and the DP** in the **Asia-Pacific region** on school climate, learning cultures, and issues with the transition between programmes, indicates that teachers feel while the MYP focuses on learning by doing, student inquiry and holistic learning, the DP seems to focus more on exam preparation, subject content and tests and summative assessments (Couts 2011).

A study examining **student motivations** for choosing the **DP** in **Australia** explored why students chose the IB, how they imagine their futures, and how they link the DP with those futures. Findings suggest many choose the IB as a method to become more transnational, rather than because they were already so. Main factors emerging as considerations were: "future university entrance", "future international mobility" and "the desire to study overseas". Students considered joining the DP a high-stakes choice with potential life rewards, but also with significant risks over the course of programme (Doherty, Mu & Shield 2009).

A dissertation on the introduction of the **DP** alongside the local Higher School Certificate (HSC) at an **Australian** high school, examined the intended, implemented and achieved **science curriculums**. Results indicated that there were some differences between the two programmes, with DP students attaining a higher University Admissions Index score and indicating an increased likelihood of selecting a science-related career than their HSC counterparts (Hugman 2009).

Couts, D. 2011. A Study about Faculty Perceptions of the Effectiveness of the IB Middle Years Program Preparing Students for the IB Diploma Program for Selected Schools in the IB Asia-Pacific Region. (Unpublished master's thesis). Redding, CA, USA: Simpson University.

Doherty, C., Mu, L. and Shield, P. 2009. "Planning mobile futures: The border artistry of International Baccalaureate Diploma choosers". British Journal of Sociology of Education. Vol 30, number 6. Pp 757—771.

Gan, A. 2009. "Chinese students' adjustment to the International Baccalaureate Diploma Programme: Experiences of an Australian high school". Journal of Research in International Education. Vol 8. Pp 283.

Gibbs, P. 2004. Language, Culture and ESL: A Comparative Study of IB and A-level Mathematics in Hong Kong. (Master's thesis). Hong Kong: University of Hong Kong.

Hara, K. 2011. Educational Change beyond Borders: International Baccalaureate in New Zealand. (Doctoral dissertation). Auckland, NZ: Auckland University of Technology.

Hugman, A. 2009. Investigating the Introduction of the International Baccalaureate Diploma alongside the Existing Local Curriculum: Examining the Intended, Implemented and Achieved Science Curricula. (Doctoral dissertation). Bentley, WA, USA: Curtin University of Technology.

Mirza, T. 2011. Role of Distributive Leadership in the Transformation of Traditional Schools to Professional Learning Communities in Developing Nations of South Asia. (Unpublished master's thesis). London, UK: University of London.

Mok McLeod, HW. 2009. Teacher Learning in a Context of Comprehensive School Change: A Case Study of an International School in Hong Kong during Implementation of the International Baccalaureate Primary Years Programme. (Doctoral dissertation). Hong Kong: University of Hong Kong.