

RESEARCH SUMMARY

International Baccalaureate Primary Years Programme in Aotearoa New Zealand: A case study in whole-school innovation



Summary developed by the IB Research department based on a report prepared by:

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Background

This evaluation examines the International Baccalaureate (IB) Primary Years Programme (PYP) in Aotearoa New Zealand. The study takes place within the context of a national curriculum that, like the IB, also promotes classroom inquiry and encourages the education of students based on classroom research, subject integration and “internationalization”. At the time of the study, there were 14 public and private PYP schools in New Zealand.

The central feature of the PYP is a curriculum that “transcends” subject or skills-based learning to implement an inquiry-based learning approach. The result is what is known as a “transdisciplinary” curriculum. The PYP also departs from an outcomes-based curriculum, one driven by measurable outcomes, in favour of a process-driven curriculum, in which there is a focus on the quality of classroom interactions.

The researchers frame the PYP in their report as a curriculum innovation, since it is both a departure from New Zealand historical practice and a novel approach for each of the schools in this study. Indeed, according to the researchers, the IB can be seen as an innovation in itself, as it invites schools and nation states to enter into curriculum innovation.

Research design

This research involved a suite of methods to provide a rich case study of the current status of the PYP in New Zealand. The methods used included:

- a document analysis comparing the PYP with the New Zealand Curriculum (NZC)

- an analysis of achievement data from as many PYP schools as were able to provide test data
- two observational studies of PYP schools (an intermediate school and a primary school) including detailed classroom observations, interviews with staff and students, attendance at school meetings and separate interviews with school principals
- a theoretical analysis comparing the PYP with other primary curriculum innovations
- two workshops with PYP principals and coordinators to verify and amend the data.

Together, the various sections of the full report comprise a case study. Case study is a way of capturing many aspects and perspectives of a known system. In this case, the “system” is the PYP as an innovation in New Zealand.

Findings

Student achievement

A key component of the report explores PYP achievement on standardized tests. Achievement data from high decile¹ schools nationally was compared with the data from 5 of the 14 PYP schools in New Zealand. The total number of students’ test results included in this analysis was 17,573 and the sum of all test sets analysed was 169. Therefore, some level of generalizability of results to the 14 PYP schools can be supported. A total of 169 sets of analyses were carried out. Below is a summary of the results from these analyses.

- Of the 169 comparisons, 158 (93.5%) were in favour of the PYP schools.

¹ Decile is a measure of socio-economic status used in New Zealand’s educational system.

School name	Religious/secular	Co-ed/single sex	School level	Socio-economic decile
Diocesan School for Girls	Religious affiliation	Single sex	Primary school	High decile
Auckland Normal Intermediate	Secular	Co-ed	Intermediate school	High decile

Table 1: Characteristics of the two PYP schools where observations took place.

- Of the 158 in favour, 127 differences (representing 75.1% of 169 total sets) were statistically significant.
- With regard to the statistically significant differences, all 127 (75.1% of total sets) represented small, medium or large effect sizes, suggesting that in over three-quarters of tests, PYP achievement was higher than the national comparison.
- Of the total 127 small to large effect sizes, 50 were large (29.6% of total sets), 43 were medium (25.4% of total sets) and 34 were small (20.1% of total sets), suggesting that the bulk of the significant differences were in the medium to large range.
- Lastly, of the total 11 test sets where national comparative norms were higher, none of the differences were statistically significant ($p < .05$), further supporting PYP relative achievement.

Overwhelmingly, results were supportive of the notion that achievement at PYP schools exceeds that of achievement in similar high decile primary schools. More generally, the report suggests that the PYP can support positive academic learning outcomes among students in New Zealand, at least in economically high decile schools. As will be described below, the PYP was also perceived as having the potential to play an important role in low decile schools.

Curricular comparison

In another section of the report, the researchers systematically analysed the alignment of the written content of key elements of both the PYP and the NZC. The curricular comparison revealed a pattern of coherence between the PYP and NZC. The intentions the two curriculums set out for learners, as well as the themes, concepts, attitudes and values they promote, were found to be highly compatible with one another, although there are also some notable points of difference.

One such difference between these curriculums is the expectation in the PYP that learners will carry out inquiries, take “action” and present the process and results of their inquiry through an “exhibition”. It should be noted,

however, that none of these aspects of the PYP are precluded by the content of the NZC. Nevertheless, the priority these aspects are afforded in the PYP, specifically the requirement for inquiry and action, as well as the focus on international-mindedness, stand out as distinctive.

Classroom observations

Researchers conducted detailed observational studies within two schools offering the PYP: the Diocesan School for Girls and Auckland Normal Intermediate (ANI).

Inquiry-based learning

Inquiry-based learning was judged to be integral to teaching and learning in each of these PYP schools. As one of the researchers notes, “you now realise this is also one of the impacts of the PYP: it pushes the kids to inquire rather than assume, because questioning leads to learning, and learning leads to student agency, clarity and knowledge”. Describing the climate in the Diocesan School for Girls, the researchers explain that “inquiry, questioning and guided ‘wondering’ are strongly apparent, though this inquiry takes many different forms. Teachers use provocations, prompts and specific language around the learner profile to inspire students to action and inquiry”. In discussing inquiry learning within the classroom, one student from ANI commented on the difference between her previous and current school, noting that her experience in her old (non-IB) school was of a more prescribed nature and that students had to focus on the same topic yet “with inquiry you can research anything that relates to the central idea ... and there’s a lot of independence”.

Learning to learn

Students at the two schools also displayed a honed sense of analysis and critique. They are trained in this; the curriculum introduces them, not just to knowledge, but to how knowledge is constructed. Students are encouraged to think of knowledge not only as what is imported to the classroom from elsewhere, but also what is generated within the classroom. One student commented on how the IB programme prepares

students for life and university in that it helps them to negotiate their learning as well as different ways of learning, explaining that “IB is teaching how to learn instead of just the answers”.

Global and local interactions

The focus on internationalism and “intercultural understanding” in the two schools was framed in terms of global self-positioning, and yet the language and the requirement is interpreted by the teacher as local in its implications. In a New Zealand context, for example, “intercultural” can be translated with ease into an inquiry into relations with indigenous peoples. Global responsibility is emphasized in classroom discussions but, again, often with local connections. Students are able to place themselves at the centre of issues and current events, such as the rising costs of petrol and oil, the housing market boom in Auckland and urbanization. Students are encouraged to think about what such things might mean and how to mitigate the impacts in their own families, communities and country.

Teachers as facilitators

Over the course of the evaluation, the researchers observed teachers serving in the primary role of knowledge and learning facilitators. In fact, teachers moved fluidly between facilitative, coaching and instructional roles. Teachers were constantly adapting their teaching methods and roles, and discussing this among themselves. Teachers at ANI positioned themselves as guides in the students’ journey through inquiry; they also functioned as “anchors” at certain points, when the students seemed to struggle. These teachers pushed students to be curious, to harness and focus their curiosity and to “do something” with their curiosity.

Student agency in learning

In classrooms, students authentically shared control of much of the process of knowledge generation—under varying degrees of direction from teachers. Overall, students seemed to be in control of their knowledge base, which was evidenced through their research and attention to data collection during units of inquiry. Observations indicated that knowledge was being developed rather than simply reproduced. The researchers rarely saw students resorting to teachers to solve their group conundrums and there was ample evidence of student autonomy. In a focus group at ANI, all students found “student voice” and “student agency” to be an integral part of the PYP. As one student explained:

with student agency we actually work with teachers to ensure that something happens ... this is my example—with student voice we might say we need more books for the library and the teachers might go and buy ones that might be completely useless, whereas with student agency, we might say we need books—well what kinds of books? What books might support your inquiry? And then we’d go and literally select the books and then we might have a conversation about budget ... you know what I mean?

The PYP in low decile schools

In the final section of the report, the authors consider the PYP with regard to low decile schools in New Zealand. The authors explain that nothing emerges from their research to suggest that aspects of the PYP would be inappropriate out of the context of a high decile school and/or an internationally oriented constituency of parents. Set against concerns within New Zealand for raising achievement among Maori/Pasifika students, the authors suggest that the PYP offers a curriculum solution and points toward an alternative understanding of an achievement identity for Maori and Pasifika learners. The authors hypothesize that the process of inquiry may act as an equalizer and means of creating academic identities that are culturally meaningful to Maori/Pasifika students, while noting that further research is needed.

Summary

The results from the standardized test analysis used in this study indicated that achievement in the PYP schools generally exceeded achievement among other high decile schools nationally. Additionally, while the NZC and PYP are largely compatible, there were a few points of difference, notably an emphasis on international-mindedness, inquiry and action in the PYP. Researchers highlighted a number of key findings based on school observations, specifically the emphasis on inquiry-based learning, a constructivist approach to knowledge and global/local interactions. Students also displayed a great deal of agency in their own learning and teachers tended to act as facilitators of the learning process. Lastly, the authors conclude that while most of the PYP schools serve populations of relatively high decile students, this does not diminish the potential of the PYP, or another inquiry-based curriculum, for students from lower socio-economic backgrounds.

References

Smith, L, Prunty, J, Dwyer, D and Kleine, P. 1984. "Reconstructing educational innovation". *The Teachers College Record*. 86(1). Pp 20–33.

This summary was developed by the IB Research department. A copy of the full report is available at ibo.org/en/about-the-ib/research/. For more information on this study or other IB research, please email research@ibo.org.

To cite the full report, please use the following.

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