

# Performance comparison between IB and non-IB students on the International Schools' Assessment

## Summary

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## Purpose

This report compares the academic performance of International Baccalaureate (IB) students in the Primary Years Programme (PYP) and Middle Years Programme (MYP) with that of students in other accredited international schools, using data from the International Schools' Assessment (ISA). The ISA is designed for students in international schools from grades 3 to 10 and evaluates proficiency in five domains: Mathematical Literacy, Reading, Scientific Literacy, Narrative Writing and Expository Writing. In addition, ISA scales for Mathematical Literacy, Reading and Scientific Literacy are based on the internationally recognized frameworks used in the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA), allowing for robust benchmarking and international comparability. This study replicates previous research (Tan, Bibby, 2010; Tan, Bibby, 2012; ACER, 2021), using more recent ISA (2023–2024) and PISA (2022) results.

## Sample and analysis

The analysis draws on ISA data from 71,267 students across 254 internationally accredited schools globally that participated in the 2023–2024 assessment cycles. The sample includes both PYP and MYP schools ( $n = 123$ ) and a comparison group of non-IB schools ( $n = 131$ ), all accredited for international education by other accreditation bodies.<sup>1</sup> In this report, IB students in grades 3 to 6 are classified as PYP students and students in grades 7 to 10 are classified as MYP students. To compare performance between IB and non-IB students, ISA scores were analysed using two-level hierarchical linear models, with effect sizes calculated to show the size of any differences.

The results show where the IB and non-IB student groups differ in a statistically significant way ( $p < 0.05$ ) and include effect sizes to show the practical importance of those differences. Cohen's  $d$  **effect sizes** are categorized as:

- **negligible:** less than 0.1
- **small:** 0.1–0.2
- **medium:** 0.2–0.5
- **large:** 0.5 and above.

<sup>1</sup> The non-IB cohort excludes schools identified as “interested in IB programmes” or those designated as IB candidate schools.

# Findings

## Differences between IB and non-IB students across ISA domains

This section presents the magnitude of differences between IB and non-IB students across the five ISA assessment domains.

**Globally, PYP and MYP students consistently performed at least as well as, and often significantly better than, their non-IB peers. Notably, there were no grade levels or domains in which non-IB students significantly outperformed IB students** (table 1).

- IB students performed particularly well in **Reading**, surpassing non-IB students across almost all grades.
- IB students demonstrated higher performance in **Scientific Literacy** at more than half of the grade levels.
- IB students achieved stronger outcomes in Narrative and Expository Writing across several grade levels.
- IB and non-IB students performed similarly in Mathematical Literacy, although IB students showed better results in grades 7 and 8.

Grade	Mathematical Literacy	Reading	Scientific Literacy	Narrative Writing	Expository Writing
3		+	+	+	+
4		+	+		
5			+		
6		+			
7	+	++		+	++
8	+	+	+	+	++
9		+			+
10		+	+		

**Table 1: Comparison of effect sizes across all ISA domains**

### Notes

A "+" symbol indicates a significant result in favour of IB students. A blank cell indicates that there was no significant difference between IB and non-IB students.

+: small effect size; ++: medium effect size

## Comparison with PISA benchmarks

The ISA scales for Mathematical Literacy, Reading and Scientific Literacy are based on those developed for PISA. The scales are equated, allowing ISA results to be placed on a common scale and compared with PISA scores. This section presents findings on how grade 9 and 10 MYP students' ISA results compare with PISA means for 15-year-old students.

**Grade 9 and 10 MYP students significantly outperformed the 2022 PISA averages across all domains, with large effect sizes** (table 2).

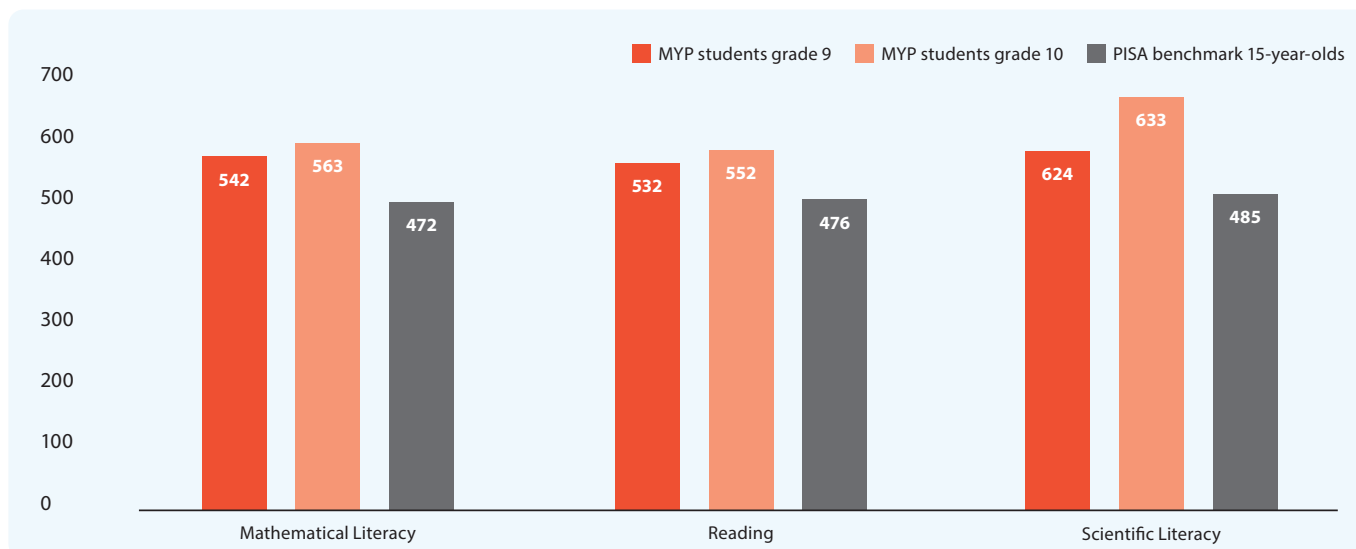
Grade	Mathematical Literacy	Reading	Scientific Literacy
9	+++	+++	+++
10	+++	+++	+++

**Table 2: Comparison of effect sizes of Grade 9 and 10 MYP students compared to PISA 2022 averages in Mathematical Literacy, Reading and Scientific Literacy**

### Notes

A "+" symbol indicates a significant result in favour of IB students. +: small effect size; ++: medium effect size; +++: large effect size

## When examining scores, MYP students in grades 9 and 10 showed notable advantages in Mathematical Literacy, Reading and Scientific Literacy.



**Figure 1: Grade 9 and 10 MYP student performance in Mathematical literacy, Reading and Scientific literacy compared to 2022 PISA performance benchmarks**

## Conclusions

Consistent with prior research (Tan, Bibby, 2010; Tan, Bibby, 2012; ACER, 2021), these findings show that, globally, PYP and MYP students performed significantly better than students from non-IB schools across multiple ISA domains and grade levels. Notably, there were no instances in which non-IB students significantly outperformed IB students in any grade or subject area. Reading emerged as a particular strength for IB students across nearly all grades. Meaningful differences were also apparent in Scientific Literacy, and both Narrative and Expository Writing. Additionally, grade 9 and 10 MYP students performed well above the 2022 international PISA averages in all three domains. Overall, these results provide strong evidence that PYP and MYP students perform well academically, even when compared to other high-achieving student groups.

## References

- Australian Council for Educational Research. (2021). *Performance comparison between IB and non-IB school students on the International Schools' Assessment*. International Baccalaureate Organization.
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This summary was developed by Emily VanderKamp. A copy of the full report is available at: [ibo.org/en/research](https://ibo.org/en/research). For more information on this study or other IB research, please email [research@ibo.org](mailto:research@ibo.org).

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