



# Research summary

*The potentials of K–12 literacy development in the International Baccalaureate Primary Years Programme (PYP) and Middle Years Programme (MYP)*

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

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## Background

The purpose of this study was to investigate literacy within the International Baccalaureate (IB) Primary Years Programme (PYP) and Middle Years Programme (MYP) and to inform the development of the programmes. The full report consists of a literature review and an analysis of key PYP and MYP documents.

## Research design

For the literature review portion of the study, the authors conducted a search of peer-reviewed literature from 2009 to the present. In total, 91 journal articles, 30 books, 14 reports and 5 websites were included in the final review. Selected works were also summarized in an annotated bibliography (Appendix I in the full report).

The document analysis used an inductive thematic analysis methodology (Guest et al 2012), which involved the identification of five key themes arising from the literature review. A first reviewer read through and coded identified themes within all of the documents, line by line. These themes were synthesized into a series of matrices (Appendices E to H in the full report) and were verified by a second reviewer. The coding matrices were developed for interrogating and coding IB documents in relation to: a) language and literacy objectives and goals in the curriculum and b) approaches to teaching and assessing language and literacy.

## Literature review findings

This study sought to answer the following research questions:

1. To what extent, and in what ways, do the PYP and the MYP reflect the research base in developing literacy across and within K–12 grades in relation to curriculum, pedagogic and assessment considerations?
2. How do PYP and MYP documents connect characteristics, such as the promotion of international mindedness, a global student cohort with complex language profiles and the transdisciplinary and interdisciplinary nature of the two programmes, to literacy development?

A literature review was conducted to inform the investigation with a focus on the following:

1. key curriculum, pedagogic and assessment considerations in developing literacy across and within K–12 grades
2. transition from general to discipline-specific literacy in adolescents' education, particularly for students receiving instruction in a language other than their native language
3. the implementation of learning progressions in K–12 literacy curriculum development and teaching practice
4. the connection between literacy and international-mindedness, a global student cohort with complex language profiles, and the transdisciplinary and interdisciplinary nature of the programmes.

The literature review revealed five key themes: theoretical perspectives, basic literacy skills, disciplinary literacy, new literacies and multilingualism. These themes were then incorporated into coding matrices to analyse how the MYP programme guides published in 2015 and the

current PYP curriculum map onto the research base. Ten recommendations were then developed based on the document analysis. These are outlined below.

## Recommendations

This study has revealed many instances of exemplary principles and practices within both programmes. The recommendations below from the researchers seek to extend and strengthen these practices. The first seven recommendations are loosely linked to the five literacy themes and the remaining three focus on implications for pedagogy, assessment and teacher professional development.

### **How language is learned: strengthen guidance on the ways learning is scaffolded through teacher and student interactions**

Constructivism and social constructivism require further theoretical explication within IB documentation to aid teachers in making links between inquiry learning and the ways in which language learning can be scaffolded explicitly within this approach. PYP and MYP documentation could foreground these theoretical links and highlight the ways in which learning is achieved through the scaffolded interactions of teachers and students.

### **Descriptions of language: develop two separate descriptions of progress for mother-tongue language learning and additional language learning in the early and primary years**

A more fine-grained description of language learning is required to adequately track progress, particularly in the early phases of language learning. A more detailed description of language learning would also aid teachers in complying with the recommendation made in *Language and learning in IB programmes* that teachers record information in student language profiles, mapping their progress in order to support planning for future differentiation.

Mother-tongue learning and additional language learning are significantly different, and it is recommended that two distinct descriptions of language learning be developed to track development in mother tongue and additional languages.

### **Language development across the programmes: extend the PYP *Language scope and sequence* to the MYP with additional focus on language complexity**

Although the IB recognizes that learning becomes more complex over time, there is no detailed description of the precise ways in which language demands increase in complexity. A more detailed explanation of language and literacy descriptors within *Language scope and sequence* would help to address this issue. Work could also be done to identify gaps in the existing descriptors and to map skills across the phases to better describe the development of these skills and the shift from basic interpersonal communication skills (BICS)<sup>1</sup> to cognitive academic language proficiency (CALP).<sup>2</sup>

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<sup>1</sup> Basic interpersonal communications skills (BICS) are defined as language used for interactions in social contexts, e.g. describing, recounting.

<sup>2</sup> Cognitive academic language proficiency (CALP) is defined as language used for more abstract and academic contexts, e.g. evaluating, analysing, synthesizing.

The IB should expand the scope of its language and literacy continuum to traverse the PYP and MYP. This would allow for smoother transitions from one programme to another and for teachers in each programme to track students' progress in language knowledge and literacy skills.

### **Basic literacy skills: expand descriptions of basic literacy skills in guidance documents**

The cross-programme language scope and sequence recommended above would extend the development of basic literacy to the MYP. Further elaboration of the CALP framework to describe the transition from basic literacy skills to disciplinary literacy could be added to the continuum document *Developing academic literacy in IB programmes*. The basic literacy skills embedded within the approaches to learning (ATLs) in both programmes could be more clearly articulated and provide an easily identifiable pathway for the development of basic literacy skills and their relationship to inquiry processes.

### **Language descriptions across the disciplines: provide additional guidance on disciplinary literacy skills and language features**

Disciplinary literacy skills and their foundational disciplinary language features could be articulated within an expanded language scope and sequence. This would also illustrate the shift from the everyday registers of BICS to the academic registers of CALP.

Alternatively, subject-specific language continuums could accompany subject documents, perhaps as language addenda. A document that provides a more articulated scope and sequence of the ways academic literacy develops, with elaborations on what academic literacy looks like within specific discipline/subject areas, would be particularly useful. This could be provided as a further elaboration of the CALP framework in *Developing academic literacy in IB programmes*, an extension of the PYP *Language scope and sequence* or an addendum to the ATL skills document.

### **New literacies: ensure the systematic representation of multiliteracies in PYP and MYP approaches to literacy**

Close attention to the development of multiliteracies in the PYP and MYP would support their actualization within transdisciplinary and interdisciplinary contexts for learning. As noted with other aspects of literacy, the systematic representation of multiliteracies in support and guidance documents such as *Language scope and sequence*, the ATLs or subject-specific guides could then be carried forward into learning objectives and assessment criteria. The digital framework for technology (agency, information and design) should be used to make multimodal literacy skills and knowledge explicit.

### **Multilingualism: provide guidance on integrating multilingualism into planning and implementation**

Teachers would benefit from guidance on how the IB principles of multilingualism can be achieved in the everyday practice of planning and assessment within IB programmes. Guidance could include indicators or prompts in subject overviews and planners to suggest ways that additional languages could be used to explore the topics under instruction as well as opportunities for multilingual practices.

### **Language-focused pedagogies: develop specific guidance on pedagogies that scaffold literacy within an inquiry approach**

Improvements to guidance on language and literacy within PYP and MYP documents have been a feature of the recommendations above. However, language requires explicit apprenticeship if users are to effectively communicate with other users. This includes an apprenticeship into the academic language of school and also the differing language and literacy requirements across disciplines.

Although scaffolding and support is evident throughout IB documents, it is not entirely clear what explicit support looks like. Therefore, the researchers recommend that the IB develop examples of language-focused pedagogies that work well within authentic contexts, for example, **scaffolding literacy** as a pedagogy that combines explicit language teaching with inquiry approaches.

The authors also suggest the development of case studies to illustrate how language knowledge and literacy skills can be taught explicitly. These could consist of transdisciplinary unit samples in the PYP or examples of how an interdisciplinary unit could work between subject groups such as science and language in the MYP. The case studies could provide examples of how language and literacy skills can be taught in authentic contexts to reflect the IB commitment to inquiry-based, holistic and meaningful learning. They could also include examples of how language and literacy demands contribute to the development of conceptual understanding through a concept-driven approach.

### **Assessment: plan and assess for literacy outcomes**

To ensure literacy outcomes are formally assessed in the PYP, the researchers recommend that changes to *Language scope and sequence* set out a clear progression of learning against identified literacy strands. They also suggest that language and literacy outcomes should be clearly articulated and incorporated into planning for learning and assessment.

In the MYP, literacy outcomes could be strengthened by tightening broad outcomes related to communication, broadening outcomes related to disciplinary literacy and connecting these to assessment criteria in all subject-group guides. This could be achieved through further explication of communication skills in ATL, the expansion of *Language scope and sequence* or the development of discipline-specific literacy outcomes.

### **Professional development for teachers: focus professional development and resources on strengthening key aspects of literacy**

To assist literacy specialists and classroom and subject-group teachers in strengthening key aspects of their literacy practice within IB programmes, the researchers recommend targeted professional development courses and professional resources. These should focus on the development of teacher content and pedagogical knowledge in the areas of disciplinary language and literacy skills, multiliteracies and multilingual instruction.

## References

Guest, G, MacQueen, K and Namey, E. 2012. *Applied thematic analysis*. Thousand Oaks, CA: Sage.

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

To cite the full report, please use the following.

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