

# Research summary

## *Audit of the International Baccalaureate approaches to teaching*

**Summary developed by IB Research based on a report by:**

The National Recognition Information Centre for the United Kingdom (UK NARIC)

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## Background

This study offers a critical and in-depth examination of the International Baccalaureate (IB) approaches to teaching (ATT). The ATT, which is centred on a cycle of inquiry, action and reflection, aims to guide and focus educators and students in IB World Schools. In all IB programmes, teaching is rooted in six pedagogical principles: “based on inquiry”, “focused on conceptual understanding”, “developed in local and global contexts”, “focused on effective teamwork and collaboration”, “designed to remove barriers to learning” and “informed by assessment”. The full report considers the appropriateness of the ATT for K-12 teaching, the alignment between the ATT and other IB teaching and learning frameworks, and the integration of selected ATT principles in IB documents. The study also provides recommendations regarding the nature of the ATT and its implementation.

## Research design

This study involved four main phases. First, the National Recognition Information Centre for the United Kingdom (UK NARIC) identified seven pedagogic themes which are either explicitly or implicitly present in multiple ATT principles. The pedagogic themes supported both the comparison of the ATT with alternative frameworks and the IB documentation audit.

Second, researchers conducted a literature review to ensure a thorough understanding of the ATT, the underpinning evidence base of the principles and whether the approaches are coherent, complete and future-focused. The literature review also identified several alternative frameworks against which to compare the ATT. These frameworks were selected for offering the following: explicit reference to teaching for future-focused learning, teaching across multiple age ranges, a combination of national and international frameworks, and evidence of strong pedagogic underpinning. The comparative analysis of the ATT and alternative frameworks was conducted using a three-pronged approach, consisting of a coverage approach, gap analysis and thematic presence method.

Third, UK NARIC conducted an audit of IB programmes and the continuum to determine the ways and extent to which the ATT collectively aligns with other IB goals and curriculum components and to examine how two selected ATT principles are articulated across and within IB programmes. In order to understand the extent to which the ATT principles “**based on inquiry**” and “**focused on effective teamwork and collaboration**” are effectively integrated into programme curricular documents, it was necessary to carry out multiple mapping processes. Researchers conducted mapping processes to uncover not only direct references to the principles in question but also indirect references. The audit involved three types of referencing.

- Direct mapping. This method searched throughout the text of IB documentation for any explicit references to the “approaches to teaching”, and/or the title of either selected principle (“**based on inquiry**” or “**focused on effective teamwork and collaboration**”).

- Keyword mapping. This method searched for terms inherently linked to the principles in question.
- Thematic referencing. This method uncovered indirect references to the selected ATT principles by looking for evidence of the pedagogic themes which relate to them.

Lastly, researchers evaluated and synthesized all findings to develop recommendations for the IB.

## Findings

### Pedagogic underpinning

There is potential to further describe and explain the philosophical constructs that underpin the ATT. It was apparent from the document audit that constructivism is an important, and perhaps foundational, epistemological outlook for IB teaching and learning. This is expressed through ideas such as the inquiry cycle and student-centred conceptual learning. However, the IB could do more to make the pedagogic principles behind the ATT, and their links to constructivism—which the literature review suggested is an appropriate foundation for K-12 learning—more clearly evident in documentation. The benefits of the constructivist approach and its relationship to 21st-century learning could be explored and articulated more clearly.

### Comparison with other pedagogic frameworks

The standing of the IB ATT was assessed through a literature review which included detailed comparison with alternative pedagogical frameworks.<sup>1</sup> The ATT and each of its individual principles have a firm foundation in pedagogical research. This was evidenced by strong alignment between the ATT and the alternative frameworks analysed. As expected, some areas of divergence between the ATT and the alternative frameworks were identified.

- The pedagogic theme “global/international citizenship” was the least likely to be covered in the alternative frameworks.
- The combination of inquiry-based learning and concept-focused learning was expressed and prioritized in the ATT more clearly than in any other alternative framework analysed.
- The “gap” analysis revealed a limited number of areas in which alternative frameworks contained elements not found within the ATT. These included some practical classroom activities, certain precise areas of learning, and explicit prioritization of innovation and creativity.

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<sup>1</sup> The alternative pedagogic frameworks included ATS2020 Transversal Skills Framework, Cambridge International Learner Attributes, Eco-Schools Educational Principles, European Commission Key Competences for Lifelong Learning, NAEYC DAP Guidelines, P21 Frameworks for 21st Century Learning (Battelle for Kids), Singapore 21CC Framework, Singapore Teaching Practice Pedagogic Principles.

This, however, does not rule out the identified “gaps” potentially being included in other IB teaching and learning curriculum components, such as the approaches to learning (ATL) and the learner profile. The ATT was also found to contain effective and coherent pedagogy for the entire K-12 continuum due to the similarities identified between it and the alternative frameworks with similarly targeted age groups, and the research carried out into pedagogic best practice through the literature review.

## Curriculum audit

Taking all auditing methods into consideration, it was evident that, of the two selected principles, “**based on inquiry**” is more effectively integrated through both keyword and thematic integration than “**focused on effective teamwork and collaboration**”, even though both had the same (small) number of direct references. When looking at this through the lens of the pedagogic themes, “process/cycle” was the most common pedagogic theme in audited documentation, followed by “student-led”. “Collaboration” was a distant third, closely followed by “flexibility with disciplines”. The least referenced themes were “local and relevant”, “global/international citizenship” and “student individuality”.

Examining the integration of the principles “**based on inquiry**” and “**focused on effective teamwork and collaboration**” across document types, researchers found that all three cross-programme documents<sup>2</sup> contain some direct references to the “approaches to teaching”, but only *What is an IB education?* translates this into direct references to the selected principles. Programme-specific documents, like the *From principles into practice* and subject guides, demonstrate variations in the integration of the selected ATT principles. A common theme in the findings was the absence of direct references to the principles and fluctuations in the number of keywords and indirect references made to the selected ATT principles or pedagogic themes. However, the absence of direct references in the selected ATT principles was not necessarily indicative of a lack of ATT pedagogic theme inclusion. Some documents, like the Primary Years Programme (PYP) *From principles into practice*, for example, demonstrated a low number of direct references while simultaneously containing a high number of indirect references to the language of inquiry.

The trend towards greater representation of the principle “**based on inquiry**” was noted as a constant throughout the cross-programme, programme-specific and subject guide documentation. This led to the conclusion that “**focused on effective teamwork and collaboration**” should be considered for potential further integration across the suite of documents sampled in this study.

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<sup>2</sup> The cross-programme documents included in this study were: *What is an IB education* (2019), *What is an IB education? Teacher support material* (2019) and *Programme standards and practices* (2019). A full list of the documents audited in this study can be found in Appendix 8 of the main report.

Researchers also noted that there are some words and phrases used in IB documentation with an at-first-glance simple definition, which have more sophisticated and complex connotations when read within the wider context of IB pedagogy. This, in turn, raised discussion around how IB teachers and educators interpret and apply the ATT principles in their professional practice.

Lastly, the IB mission statement contains all pedagogic themes identified in the ATT except “flexibility with disciplines”. There is thus scope to add a short phrase or sentence to incorporate this theme and therefore holistically deliver indirect reference to the entire ATT in this key passage of IB documentation.

### Alignment with other IB curriculum documents

Through the document audit, researchers found that there is potential to further clarify the relationship between the ATT and other key curriculum components, such as the learner profile, ATL, international mindedness and the stated aims of the programmes. The stated aims of IB programmes were found to integrate all seven of the pedagogic themes which underpin the ATT. Some programmes exhibited varying levels of emphasis on specific themes with the following pertinent examples.

- The PYP placed particular emphasis on the themes of “student-led” and “process/cycle”.
- The Middle Years Programme (MYP) placed a higher emphasis on “student individuality” than the PYP.
- The Diploma Programme (DP) demonstrated no discernible emphasis on or limitation to any single theme.
- The Career-related Programme (CP) demonstrated a strong emphasis on “local and relevant”, while including only limited implicit reference to the theme of “collaboration”.

The other IB teaching and learning curriculum components (learner profile and ATL) were found to demonstrate varying degrees of alignment with the ATT principles or pedagogic themes. The learner profile demonstrated the strongest alignment with the ATT’s pedagogic themes, despite differences in articulation and emphasis on specific themes. The ATL aligned with some ATT principles or pedagogic themes although areas of difference were also found. In addition, the ATL included components of “thinking skills” which were not seen to be covered by the ATT principles. Overall, the alignment of the ATT, learner profile and ATL demonstrated that the curriculum components not only function as teaching and learning guidance in their own right, but they also mutually reinforce one another by covering many of the same core ideas, and complement each other by providing their own specific focuses.

## Recommendations

The following are a selection of recommendations based on the study. To see the complete list of recommendations, refer to the full report.

## Pedagogic underpinning

- Further explore the epistemological and philosophical underpinnings of IB pedagogy. Detailed analysis of current explicit and implicit articulation of constructivism in IB documents would enable the foundation of IB pedagogy and its benefits to be articulated more clearly.

## Comparison with other pedagogic frameworks

- Further review whether or not additional reference to teaching for creativity and innovation should be included in the ATT principles.
- Continue monitoring emerging trends in international pedagogic frameworks to ensure that the ATT as a whole—and especially the future-focused ideas within the ATT—continue to represent up-to-date best practice.

## Curriculum audit

- Embed more direct references to the titles of individual ATT principles within documentation.
- When documents are individually redrafted and revisited, take the opportunity to strategically deploy indirect references to all six ATT principles in key sections of text.
- Increase emphasis within documentation on the ATT principle “**focused on effective teamwork and collaboration**”.
- Develop further guidance within documentation to clarify how readers of IB documents can interpret indirect references to ATT principles. This includes centrally defining keywords and phrases, potentially with a glossary-like resource.

## Alignment with other IB curriculum documents

- Develop further clarity regarding the interrelationships between the ATT, ATL and learner profile—focusing on interactions between these curriculum components and the issues of mutual coverage and/or differences.

## Summary

This study indicated that the whole ATT and each of its individual parts have a firm foundation in pedagogic evidence. In particular, the epistemological outlook of constructivism appears to be at the root of the ATT. Researchers also noted close alignment between the ATT and alternative frameworks although some ATT principles are reflected in alternative frameworks more commonly or extensively than others.

From the curriculum audit it was evident that, of the two principles, “**based on inquiry**” is more effectively integrated through both keyword and thematic integration than “**focused on effective teamwork and collaboration**”. When examining alignment of IB documents,

researchers found that there is more divergence between the ATT and the ATL than between the ATT and the learner profile. Lastly, the study indicated that the ATT, learner profile and ATL not only function as teaching and learning curriculum components in their own right, but they also reinforce one another by covering many of the same core ideas while providing their own specific focuses.

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This summary was developed by the IB Research department. A copy of the full report is available at: [www.ibo.org/en/research/](http://www.ibo.org/en/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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