

Inquiry-based curriculum

Approaches to teaching in IB programmes

Teaching in IB programmes is:

- inquiry-based—provoking curiosity in order to structure and sustain exploration
- concept-driven—planning and teaching through concepts that are transferable to new contexts
- contextualized—reaching beyond the scope of individual subjects to establish relevance
- collaborative—promoting effective teamwork and purposeful/productive collaboration
- differentiated—providing access to learning for a diversity of learners
- informed by assessment—balancing assessment of, and for, learning.

Inquiry is a central idea in IB approaches to teaching. Inquiry, interpreted in the broadest sense, is the process initiated by students or the teacher that moves students from their current level of understanding to a new and deeper level of understanding.

The attributes of the IB learner profile promote inquiry, as do IB perspectives on language and learning and the focus on the development of intercultural awareness and international-mindedness in learning communities.

With inquiry there is a greater focus on the student starting from a position of knowledge—they already bring knowledge and understanding with them—and there is a reduced emphasis on the teacher being the keeper and transmitter of knowledge. There is an acknowledgment that a collaborative process of creating knowledge takes place in a learning community, as recognized in constructivist pedagogy.

IB programmes recognize and value students' efforts to construct meaning when exploring the world around them. To support this, the MYP requires teachers to provide learning experiences that draw on students' prior knowledge and provide the time and opportunity for reflection and consolidation. This constructivist approach respects students' ongoing development of ideas, and their understanding, transfer and application of these ideas to wider contexts. Constructivism implies a pedagogy that includes student inquiry into concepts through content in authentic global contexts. This pedagogy leads to the most substantial and enduring learning.

The construction of meaning and the development of conceptual understanding are supported in the MYP by the acquisition of knowledge and the development of skills and attitudes in context. This is the way in which students learn best; they should be invited to investigate personally and globally significant issues by:

- formulating their own questions
- designing their own inquiries
- assessing the various means available to support their inquiries
- proceeding with research, experimentation, observation and analysis that will help them find their own responses to the issues.

The starting point is students' current understanding, and the goal is the active construction of meaning by building connections between that understanding and new information and experience, derived from the inquiry into new content.

The nature of inquiry

Inquiry can take many forms, yet the most successful is when students' explorations and investigations are genuine and take them from existing knowledge to new levels of understanding. An explicit expectation of the MYP is that successful inquiry will lead to meaningful reflection and to responsible action initiated by the students as a result of the learning process. This action may extend the students' learning, or it may have a wider social impact. Both inquiry and action can look very different from age 11 to 16.

Not all approaches to teaching in the MYP will take place in an inquiry setting. The MYP promotes balance and a meaningful choice in teaching strategies that can include lectures, demonstrations, memorization and individual practice. However, teaching and learning through inquiry helps students to grow in their capacity to:

- make connections between previous learning and current learning
- experiment and play with various possibilities
- make predictions and take action to see what happens
- collect data and report findings
- clarify existing ideas and reappraise perceptions of events
- deepen understanding through the application of a concept
- make and test theories
- research and seek information
- take and defend a position
- solve problems in a variety of ways.

In all IB programmes, the inquiry cycle is used in a number of ways including the exploration of concepts, through ATL skills, in unit planning, product design and experiential learning. In the MYP, global contexts are at the heart of inquiry and active learning, and can encourage students to take responsible action in a variety of situations encountered through the curriculum. For teachers and students, global contexts provide a means to inquire into subject content by questioning, explaining, discovering and doing.

The development of metacognitive skills and critical thinking through inquiry in the MYP can help to prepare students for theory of knowledge (TOK) in the DP, with its more structured focus on understanding how "knowing" is constructed in human societies. The MYP can provide valuable experiences that help students engage in sophisticated inquiry into questions about the nature, limits and value of knowledge. Inquiry-based approaches to teaching encourage students to share ideas with others and to listen to, and learn from, what others think. In this process, students' thinking and their understanding is shaped and enriched.

Creating learning environments

Schools must strive to provide secure learning environments in which the individual student is valued and respected. Learning experiences promote the development of attributes of the IB learner profile, and this is best achieved in a safe and supportive environment. Schools need to ensure that the relationships students establish with each other and with teachers, which are of central importance to development and learning, will flourish. Student learning is best supported through strong, communicative relationships between teacher, student and parent. In all schools offering the MYP, parents are informed, involved and welcomed as partners with a clear role to play in supporting the school and their own children.

The role of the teacher

Teachers, collectively and individually, play a key role in the creation of educational environments that encourage students to take responsibility, to the greatest possible extent, for their own learning. To create these environments, teachers must provide resources and support for each student to become involved in inquiry, using the tools and strategies that best fit the student's development and ways of learning.

The teacher must be familiar with, and responsive to, the needs and interests of individual students, and must be aware of the cultural and social contexts in which they live and learn. In the learning environment, the role of the teacher is to facilitate connections between the student's prior knowledge and the knowledge available through new experiences. The range of development and learning demonstrated by each member of a group of students will inform which practices the teacher will need to implement to meet the needs of both the group and the individual.

All MYP teachers are language teachers. Teachers need to develop awareness of approaches to learning (ATL) materials and teaching practices that take account of diversity in cultural and language backgrounds across the curriculum.

In the MYP classroom, the teacher facilitates student learning by creating opportunities for, and supporting, student inquiries; by asking carefully thought-out, open-ended questions; and by encouraging students to ask questions of each other as well as of the teacher. The learner profile provides a clear and explicit statement of what is expected of students, teachers and school leaders in terms of learning, and what is expected of parents in terms of support for that learning. In teaching and learning, teachers make explicit reference to the development of learner profile attributes.

Using good classroom practice

All MYP classrooms operate as microcosms of the larger institution.

An MYP classroom is itself a model of a community—it is a lively place, characterized by collaborative and purposeful activity. Within this community, students are empowered to do their best, for themselves, and to contribute to the learning and well-being of others. They are supportive of each other and will come to establish their personal set of beliefs and values. The community encourages reflection, and values thoughtful consideration of issues, problems and success.

An MYP classroom is also a balanced classroom, in the sense that teachers balance the pursuit of understanding and the construction of meaning with the acquisition of knowledge, skills and attitudes. To do this, teachers use a range of teaching and assessment strategies and resources to meet the needs of each student. In this setting, students are actively engaged in planning and assessing their own learning. MYP classrooms are dynamic learning environments, with students moving from group work to individual work in response to their needs and the needs of their inquiries.

In summary, an MYP classroom is a place for thinking and where the expectations are high. It is an environment that is focused on learning.

Education outside the classroom

Classrooms and school buildings are important learning environments, but outdoor activities and environmental studies also provide powerful learning opportunities. Education beyond the classroom contributes to a range of important societal goals that can promote health and well-being, pro-social behaviour and community cohesion.

Outdoor adventure can be another valuable component in a well-rounded and rich educational experience, providing settings in which young people can engage in self-discovery and develop environmental awareness. MYP students benefit from regular opportunities to learn in outdoor settings, understand a natural place over time, and put theory into practice beyond the classroom.

Education outside the classroom often incorporates responsible action and critical reflection in ways that are essential in the process of learning through inquiry.

Teaching academic honesty

Academic honesty is the responsibility of all schools, teachers and students in IB programmes and must be developed across the curriculum as part of a school's approaches to learning. From an early age, students can be taught in the PYP to recognize ownership of work and attribute accordingly. As students gain experience they can be taught a range of academic honesty skills so that by the time they meet externally validated assessment in the MYP or the DP, they have well-developed skills and can avoid pitfalls.

MYP students should learn key ATL skills such as citing and referencing, and be given opportunities to make mistakes and learn from them so that they are well prepared for further studies after the MYP. This section should be read in conjunction with the "ATL skills framework" (Appendix 1) and the "Developing an academic honesty policy" section of this guide.

Academic honesty must be seen as a set of values and skills that promote personal integrity and good practice in teaching, learning and assessment. It is influenced and shaped by a variety of factors including peer pressure, culture, parental expectations, role-modelling and taught skills. Although it is probably easier to explain to students what constitutes academic dishonesty, with direct reference to plagiarism, collusion and cheating in examinations, whenever possible the topic must be treated in a positive way, stressing the benefits of properly conducted academic research and a respect for the integrity of all forms of student work in the MYP.

All MYP students must understand the basic meaning and significance of concepts that relate to academic honesty, especially intellectual property and authenticity. However, a conceptual understanding alone is not sufficient; students must have the knowledge and practical skills to apply such concepts to their work.

The concept of intellectual property is potentially a difficult one for students to understand because there are many different forms of intellectual property rights, such as patents, registered designs, trademarks, moral rights and copyright. Students must at least be aware that forms of intellectual and creative expression (for example, works of literature, art or music) must be respected and are normally protected by law. By implementing measures to prevent plagiarism, schools are helping to combat illegal out-of-school activities (for example, illegal music downloads, peer-to-peer/P2P file sharing) for which students could face legal proceedings.

In both conceptual and practical terms, students may not understand the difference between collaboration and collusion, and therefore require guidance. Collaboration may be loosely defined as working together on a common aim with shared information, which is an open and cooperative behaviour that does not result in allowing one's work to be copied or submitted for assessment by another. Collusion occurs when a student uses fellow learners as an unattributed source.

An authentic piece of work is one that is based on the student's individual and original ideas, with the ideas and work of others fully acknowledged. Therefore, all assignments for assessment, regardless of their format, must wholly and authentically use that student's own language, expression and ideas. Where the ideas or work of another person are represented within a student's work, whether in the form of direct quotation or paraphrase, the source(s) of those ideas or the work must be fully and appropriately acknowledged.

Although the IB defines plagiarism as the representation of the ideas or work of another person as the student's own, this definition alone does not provide students with sufficient information or guidance on what constitutes plagiarism and how it can be avoided. Students must receive guidance on when and how to include acknowledgments in their work. Similarly, the practice of paraphrasing is an ATL skill that must be taught so that students do not simply copy a passage, substitute a few words with their own and then

regard this as their own authentic work. When using the words of another person, it must become habitual practice for a student to use quotation marks, indentation or some other accepted means of indicating that the wording is not their own. Furthermore, the source of the quotation (or paraphrased text) must be clearly identified, along with the quotation, and not reside in the bibliography alone. Using the words and ideas of another person to support one's arguments is a fundamental part of any academic endeavour, and how to integrate these words and ideas with one's own is an important skill that should be explicitly taught as an ATL skill.