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Diploma Programme

# The Diploma Programme From principles into practice





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## From principles into practice



**Diploma Programme**  
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# Introduction

This document has been produced by the International Baccalaureate (IB). It is intended for school leaders, Diploma Programme coordinators and teachers in:

- candidate schools
- IB World Schools that are newly authorized to offer the Diploma Programme
- IB World Schools that are experienced in the processes of programme development and evaluation.

It is also anticipated that elements of this document will be of interest to parents and students in established IB World Schools and to school communities considering offering the Diploma Programme. It is not intended as an introduction and some familiarity with the programme is assumed.

A successful Diploma Programme requires strong school leadership and a supportive learning environment in addition to efficient management. The processes involved in the management of the programme are comprehensively explained in the *Handbook of procedures for the Diploma Programme*, which details the specific regulations and practical requirements for delivering the programme.

This publication focuses on the programme **as a whole**; it explores the educational principles and practices that need to be nurtured in schools so that a solid foundation for a successful Diploma Programme can be established and maintained. The IB is an enabling organization whose primary responsibility is supporting schools in the development of their own Diploma Programme. It is important at the outset to understand the implications of this. Schools are responsible for the quality of their programme, and their relationship with the IB is a partnership in which both parties are working towards a common goal—the realization of the IB’s mission by putting into practice the IB learner profile.

This document should be read in conjunction with *Programme standards and practices* (September 2005), a set of criteria against which the effectiveness of programme implementation in a school is measured. The contents of the following pages are based on these standards and are intended to illuminate what they mean in practice. Self-evaluation is essential for school improvement and it is intended that this document, together with *Programme standards and practices*, will provide guidance and support for schools in this process.

IB World Schools offering the Diploma Programme operate in a variety of contexts, each with its own specific circumstances and demands. By their nature, some of the principles and supporting criteria described in this document are aspirational and can never fully be realized. Developing a successful programme is an ongoing endeavour and the most important expectation is that schools demonstrate a commitment to improvement.

The IB publications listed below, which can be found on the online curriculum centre (OCC) (<http://occ.ibo.org>) and the IB public website (<http://www.ibo.org>), are also referred to in this document and provide essential additional insight into the process of programme implementation and development.

- *IB learner profile booklet*
- *Handbook of procedures for the Diploma Programme*
- *Rules for IB World Schools: Diploma Programme*
- *General regulations: Diploma Programme*
- *Programme standards and practices*
- *Towards a continuum of international education*

- *Diploma Programme: School guide to the authorization visit*
- *Diploma Programme assessment: Principles and practice*
- *Core guides (Theory of knowledge guide, Creativity, action, service guide and Extended essay guide)*
- *Subject guides*
- *Learning in a language other than mother tongue in IB programmes*
- *Guidelines for developing a school language policy*
- *Candidates with special assessment needs*
- *Academic honesty*

# Philosophy and principles of the Diploma Programme

## Introduction

The Diploma Programme provides a challenging, internationally focused, broad and balanced educational experience for students aged 16 to 19. Students are required to study six subjects and a curriculum core concurrently over two years. The programme is designed to equip students with the basic academic skills needed for university study, further education and their chosen profession as well as developing the values and life skills needed to live a fulfilled and purposeful life.

The driving force behind the Diploma Programme is a philosophy about the nature of education, which is expressed in the IB's mission statement, in the IB learner profile and in the fundamental principles on which the curriculum is based and which continue to inspire its development.

## The IB mission statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

The learner profile is the embodiment of the IB mission statement in 10 attributes and aims to define the type of learner the IB aspires to develop in all three of its programmes. It is intended to provide a focus for reflection on what is most important in IB World Schools and the IB teaching profession, which is why it is located at the heart of the programme (see figure 1: The Diploma Programme model).

## The IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

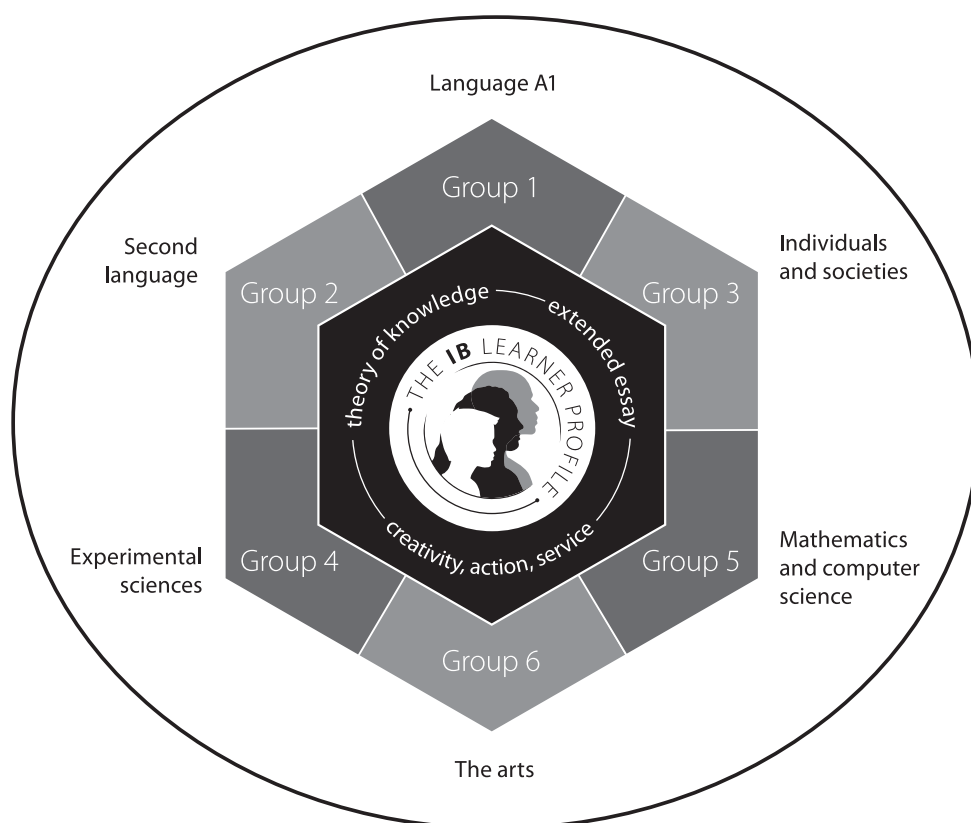
IB learners strive to be:

<b>Inquirers</b>	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
<b>Knowledgeable</b>	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
<b>Thinkers</b>	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
<b>Communicators</b>	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
<b>Principled</b>	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
<b>Open-minded</b>	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
<b>Caring</b>	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
<b>Risk-takers</b>	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
<b>Balanced</b>	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
<b>Reflective</b>	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

## Breadth and balance

A distinguishing characteristic of the Diploma Programme is a concern with the whole educational experience of each student. The curriculum framework (see figure 1), and the supporting structures and principles, are designed to ensure that each student is necessarily exposed to a broad and balanced curriculum.

The learner profile and the core are positioned at the centre of the programme, reflecting the priority given to affective as well as cognitive dispositions, and a concern with developing competent and active citizens as well as subject specialists. The core requirements of theory of knowledge (TOK), the extended essay and creativity, action, service (CAS) broaden the educational experience and challenge students to apply their knowledge and understanding in real-life contexts.



**Figure 1**  
*The Diploma Programme model*

Students study six subjects concurrently. These include two languages, one subject from individuals and societies (group 3), one experimental science (group 4), one mathematics subject (group 5), and one subject from the arts (group 6) or another subject from groups 1 to 5. (See the *Handbook of procedures for the Diploma Programme* for a full description for this and other specific requirements.) There is also currently one transdisciplinary subject, environmental systems and societies, available to students. This option allows students to satisfy the requirements for both groups 3 and 4 by studying one subject, thus allowing them to select another subject from any group (including another group 3 or 4 subject) to make up a total of six.

It is essential that a pre-university education equips students with the depth of discipline-specific knowledge and skills that they will need to follow their chosen university course and for use later in their professional lives. Specialization is encouraged in the Diploma Programme by expecting students to study three (with the possibility of studying four) subjects at a higher level (HL). This is balanced with a requirement for breadth by expecting students to study three more subjects at standard level (SL) (or two when four HL subjects are completed).

## Disciplinary and interdisciplinary understanding

The Diploma Programme is a discipline-based course of study. Each academic discipline provides its own methodological framework that students learn to understand and use. This understanding is essential in order to provide a deep appreciation of the nature of an academic discipline as well as a solid foundation for future university-level work.

Students are expected to make connections between different academic disciplines and not to study subjects in isolation from each other. Teachers and schools have a responsibility to help students make meaningful connections between different disciplines through providing instruction, teaching schedules (often also referred to as timetables) and learning environments that support this process. Concurrency of learning is expected in the Diploma Programme as it provides one important means of supporting interdisciplinary learning.

Concurrency means teaching the curriculum in a schedule that consistently exposes the student to all of their subjects and the core, over the two years of the programme. This allows students and teachers to make links between experiences in the core and the academic subjects that are being studied, and it is based on the belief that the total educational experience is more than the sum of its parts.

The TOK experience provides a forum for discussion and instruction that supports the development of interdisciplinary understanding. It is essential that the TOK course relates directly to students' experiences in the academic disciplines and that the academic disciplines, at appropriate times, refer to TOK issues.

## Education for intercultural understanding

International-mindedness is an attitude of openness to, and curiosity about, the world and different cultures. It is concerned with developing a deep understanding of the complexity, diversity and motives of human actions and interactions. In the modern information age, geographical frontiers present less of an obstacle than in the 1960s (when the IB Diploma Programme was first developed) and the impacts of globalization can be seen in every area of life. Intercultural understanding and cooperation have never been more important and lie at the very heart of the IB's mission statement and the IB learner profile.

In the Diploma Programme, the subject aims, objectives, content and assessment criteria are written in order to develop international-mindedness while, at the same time, ensuring that teachers have enough choice to make the course locally relevant and grounded.

Language learning, and learning about different cultures through language, plays a pivotal role in the programme. In group 1, while studying their best language, students are exposed to a wide range of literature in translation that requires cross-cultural comparison. The learning of a language in group 2 emphasizes the development of intercultural communicative competence, which focuses on developing the skills that enable learners to mediate between people from different societies and cultures (Byram 1997).

All group 3 subjects focus on understanding human nature, decisions and events in a global as well as local context and emphasize critical thinking, the development of multiple perspectives and constructive comparisons. Group 4 recognizes science and technology as vital international endeavours based on open critical inquiry that transcends politics, religion and nationality. Group 5 stresses the universal language of mathematics and its origins in the world's great civilizations. Group 6 encourages an active exploration of arts within the students' own and other cultural contexts with respect for, and understanding of, cultural and aesthetic differences that promote critical thinking and problem solving. The core components of TOK, the extended essay and CAS all encourage reflection on multicultural perspectives and experiential learning beyond the traditional classroom.

Focusing exclusively on the taught curriculum, however, is insufficient. Standard A2 in the IB publication *Programme standards and practices* (September 2005) states: “The school promotes international-mindedness on the part of the adults and the students in the school community.” There is a list of practices that IB World Schools must foster, most of which go beyond the formal, taught curriculum to consider essential aspects of the school environment and its supporting structures and policies.

The whole school community needs to model the values and behaviours associated with education for intercultural understanding. International-mindedness can be achieved in rich national as well as international settings provided the school environment, broadly considered, is supportive. International-mindedness starts with the attitude an individual has towards themselves and others in their immediate environment. Students need to learn to understand themselves, what it means to be human, and to make sense of their place in an increasingly interdependent, globalized world. International-mindedness, therefore, starts with self-awareness and encompasses the individual and the local/national and cultural setting of the school as well as exploring wider global perspectives.

Education for intercultural understanding requires students to develop knowledge of different cultural perspectives but also, and critically, it requires reflection on **why** different perspectives exist. It is important that this consideration stems from a student’s understanding and appreciation of their own culture and nationality so that international understanding and cooperation supplement local and national allegiances. Understanding is not the same as acceptance of all practices. While the IB’s mission statement stresses that “other people, with their differences, can also be right”, the learner profile also emphasizes the importance of reflective, caring and principled action.

## A holistic educational experience

Alec Peterson, the first director general of the IB, described the aims of the Diploma Programme as going beyond the acquisition of knowledge and skills to include the education of the “whole” person. This was in order “to develop to their fullest potential the powers of each individual to understand, to modify and to enjoy his or her environment, both inner and outer, in its physical, social, moral, aesthetic and spiritual aspects” (Peterson 2003: 33).

While helping students acquire international perspectives and understanding is essential, it is not sufficient. Students also need to develop the “will to act” and the skills and values necessary to make a positive contribution to society. Responsible citizenship is based upon compassionate and well-informed citizens who become proactively involved in their communities. It is also important to encourage young people to enjoy life to the full, and educating the whole person includes exposure to artistic, recreational and sporting activities that can enrich experience. A complete education of the whole person must also encourage the enjoyment of leisure (Peterson 2003: 58).

The CAS programme plays a central role in providing a holistic educational experience and needs to be grounded in a supportive learning environment.

## Learning how to learn

From its origins in the 1960s, the IB Diploma Programme stressed the importance of students developing independent learning strategies and skills that were transferable to new contexts—in short, the need to “learn how to learn” (Peterson 2003: 41). In the modern information age, as the amount of information and knowledge increases exponentially, it is the process of learning, applying and evaluating knowledge that matters more than ever before, not just the acquisition of knowledge.

Learning how to learn is not taught as a separate course in the Diploma Programme; it needs to be infused naturally into the curriculum as part of the teaching and learning process that supports the development of learner profile attributes. A number of aims and objectives identified in the subject groups, supported by the TOK course, require students to reflect on and to evaluate the knowledge claims they encounter and the methodologies they are learning. This “metacognitive” approach to learning helps students develop the higher-order thinking strategies needed to become lifelong independent learners.

Each academic discipline presents students with different challenges and it cannot be assumed that understanding gained in one discipline or context will be easily transferred to another. The structure of the Diploma Programme, with the expectation of concurrency of learning and the TOK experience, is designed to help students (with the support of teachers) make meaningful connections between the experiences of the core and the different academic disciplines. In the process it is expected that students will develop a better appreciation of themselves as learners and the nature of human knowledge.

The extended essay requires students to demonstrate an ability to learn independently and is intended to promote high-level research and writing skills, intellectual discovery and creativity. Students select a research question, normally relating to one of the six subjects they are studying, and complete a focused essay. They have to identify an appropriate methodology, conduct their own research and arrive at their own conclusions.

## Access

The IB believes that the Diploma Programme provides an excellent educational framework for students of a wide range of abilities and backgrounds and should be made available as widely as possible. The IB has identified as a priority the need to increase access and enable more students to benefit from experiencing its programmes.

In 2006, in its report *From Growth to Access: Developing an IBO access strategy* (available on the IB website: <http://www.ibo.org>), the IB’s governing body defined access as “enabling more students to experience and benefit from an IB education regardless of personal circumstances”.

Access includes a number of concepts:

- encouraging and enabling more schools that are located in economically underserved environments to participate in the Diploma Programme
- encouraging more students to enroll in the full Diploma Programme rather than just to work towards individual subject certificates
- broadening the subject choices and options that students can select in schools as part of their Diploma Programme and ensuring that students can study appropriate courses for their needs
- assisting students with various language backgrounds to access the Diploma Programme
- providing opportunities for students with special educational needs to access the Diploma Programme.

The IB is constantly looking at ways to improve access and to help schools reduce barriers that impede student participation in the Diploma Programme. The ways in which schools can support access are considered in detail in “Building an accessible programme”.

## Creative teacher professionalism

Teachers have the critical role of interpreting, developing and delivering the curriculum. Teachers have to create their own programme of study, ensuring that the curriculum experienced by students is aligned with the prescribed subject aims, objectives and content, and is adapted to the local context. Effective delivery of the curriculum requires teachers to be reflective practitioners who are critically self-aware of their own teaching and who model the thinking and approaches they expect of their students. Creative teacher professionalism refers to the central responsibility that teachers have in the design and delivery of the programme, which needs to be supported by ongoing professional development.

In creating programmes of study, a starting point is provided by subject guides and other teacher support material produced by the IB. Beyond these, teachers are expected to consider and use a wide range of resources as well as develop their own. Teachers are uniquely placed to do this, as they know their students and the local context. Some course companions, resource materials designed to support learning in specific subjects, are approved by the IB but teaching to a textbook is inconsistent with the philosophy of the programme.

Another aspect of creative teacher professionalism is the responsibility that teachers have to support the IB in curriculum development and assessment. The IB believes that the partnership between the organization, teachers and school administrators is fundamental to the continued success of its programmes. All subjects and core components in the Diploma Programme are regularly reviewed and developed with the help of experienced teachers, and most examiners are also experienced teachers in IB World Schools. One essential part of the curriculum evaluation and review process involves teachers responding to questionnaires so that, on one level, all teachers can be involved in curriculum review and development. Experienced teachers are encouraged to become involved in IB work beyond their school, through activities including examining, workshop leadership, curriculum development committee membership and participation in regional association work.

# Developing a successful programme

## Introduction

This section outlines the key factors schools need to consider in implementing and developing the Diploma Programme. Effective leadership and management of the change process, starting with a willingness and preparedness for change to occur, are essential prerequisites. The scale and the scope of the change, and the time needed to embed these changes, must not be underestimated. Schools must recognize that the change process does not stop once a programme has been fully implemented. Evaluation and development must continue as schools' experience with the programme allows for improvement in an ongoing cycle of evaluation, review and development.

Schools should be aware that there is no "one formula fits all" approach to developing the Diploma Programme. Each school is unique and needs to consider its own context and the community it serves before deciding on the best way forward. However, change management, organizational learning and building the capacity for change in schools have been well researched (see, for example, Fullan 2001, Senge 2000, and Argyris and Schön 1995, for three perspectives). Useful case studies and academic research directly related to the Diploma Programme can be found on the International Education Research Database (<http://research.ibo.org>) on the IB website. One very useful source of practical information is the Diploma Programme coordinators' forum on the OCC.

## Making the decision to introduce the Diploma Programme

Choosing to introduce the Diploma Programme is a decision that needs to be thoroughly researched and must be made in the light of a balanced appraisal of its suitability for a particular school. The commitment required is to a philosophy and an approach to education that must be consistent with the school's mission or, at least, with a vision of what the school aspires to become. One misconception is that the IB is an examinations board that requires only limited subject-specific professional development for programme implementation. Experienced IB World Schools offering the Diploma Programme understand and support the IB's mission statement and the learner profile, and this understanding and commitment is shared by the whole school community, not just the leadership of the school.

Some schools are concerned that they might lose their traditions and identity by embarking on the Diploma Programme. The diverse range of schools that currently offer the Diploma Programme shows that there is no requirement to adopt a standardized approach. Indeed, the challenge in implementing a programme is to ensure the programme fits the unique school context, preserving the school's identity and characteristics.

Some schools choose to introduce the Diploma Programme as one educational pathway for students while preserving local, national or other international programmes and qualifications. This can work well but it is important that the school examines the relationship between the Diploma Programme and its other educational programmes in order to ensure consistency. The school as a whole (as opposed to a section within a school) should ensure that its own philosophy and practices are consistent with the IB's mission statement and the IB learner profile.

Implementing the Diploma Programme takes time, and schools need to complete all the essential processes. Schools go through a consideration phase, which includes a feasibility study, before deciding to implement the programme. The candidate phase then follows, leading to the authorization visit. During the

authorization visit, the IB team's primary concern is that the essential elements of the programme standards and practices are in place and that the school is committed to ongoing programme development. The process is described in the document *Diploma Programme: School guide to the authorization visit*. Beyond authorization, schools can typically expect to go through two examination cycles (three years) before beginning to feel comfortable with their systems and procedures. The work continues, refining the schedule and developing policies and systems as the programme grows.

## Developmental phases

Three phases in the development of the Diploma Programme within schools can be identified. All three share the need for systematic planning that considers Diploma Programme development as part of the school's own strategic plan, taking into account the school's unique circumstances and other priorities. Diploma Programme development must be integrated into the whole-school development plan. With experience, the emphasis and priorities will change, but Diploma Programme development represents a journey, rather than a destination, and is ongoing.

The three phases can be considered as:

- preparation and candidate phase (pre-authorization)
- consolidation phase (post-authorization)
- continuous improvement (ongoing).

### Preparation and candidate phase

Establishing an organizational structure that can effectively lead and manage the implementation and development of the Diploma Programme is essential. Many schools have a hierarchical management structure with divisional principals, faculty chairs/heads of department, curriculum leaders, deans/academic heads all playing prominent roles. The Diploma Programme coordinator has a key pedagogical leadership role that the existing management structure must support and promote. This is highlighted in the IB publication *Programme standards and practices* (September 2005) and is considered in detail in "The role of the Diploma Programme coordinator" later in this section.

The expectations for the preparation and candidate phase are considered in the document *Diploma Programme: School guide to the authorization visit*. The strategic priority at this stage will be to ensure the best possible fit between the emerging Diploma Programme and existing school policies and practices, which may or may not need to be modified.

A number of detailed decisions will be required, including:

- the selection of subjects to be offered
- creating a schedule that respects the Diploma Programme regulations and guidelines (see "Building an accessible programme" and "Curriculum design and scheduling")
- the delivery of the core (TOK, extended essay and CAS)
- preparing for assessment.

Support can be sought from the IB and from regional associations. It is also advisable to contact and visit established IB World Schools. Extensive support materials are available on the OCC and for purchase at the IB store (<http://store.ibo.org>).

Continued emphasis must be placed on regular and clear communications with parents and students to reinforce community-wide understanding and general support. Adoption of exemplar materials such as

policies, reading lists and curriculum planning documents borrowed from other schools or taken from postings on the OCC is unacceptable. Schools must exercise professional creativity and develop their own materials to suit their particular circumstances, and to engender ownership.

In cases where a school is establishing the Diploma Programme as one optional pathway for students, it is important to monitor and manage the impacts of the change on perceptions, attitudes and practices in the school as a whole. There are bound to be crossover issues relating to staffing, scheduling and resourcing. Many schools comment that introducing the Diploma Programme provides a positive external benefit on teaching and learning in other programmes in the school. This cannot be assumed, and has to be carefully managed, as it is also possible that non-IB teachers might view the Diploma Programme as receiving preferential treatment. It is important to involve the whole school in the development process and to build in capacity for curriculum review and change beyond the confines of the Diploma Programme, reaching out to the school as a whole.

There are a number of philosophical as well as practical scheduling issues that schools need to address from the outset. These are:

- optimizing student access
- building a broad and balanced curriculum
- concurrency of learning
- scheduling and supporting the core.

During the authorization process, schools will need to review or develop their policies relating to academic honesty, assessment, language, special educational needs, and information and communication technology (ICT).

### **Academic honesty**

(See also *Academic honesty*.)

Diploma Programme assessment involves a significant element of internal assessment of student work in all subjects. This is required because of the value attached to authentic assessment, recognizing that many of the most important educational aims of the programme need to be assessed in the first instance by teachers in real learning contexts. A consequence of this is that schools need to have established policies and practices for ensuring that work submitted is the student's own and has been produced according to the expectations detailed in the subject guide. It is important that the school takes a proactive approach to academic honesty, as part of a school climate that is supportive of the learner profile (see "Developing the IB learner profile"). Most schools and teachers will have formulated some response to plagiarism and academic malpractice but it is essential that the high expectations of the Diploma Programme are supported with a robust and coherent policy that focuses on educating students about what constitutes malpractice and imposes strict sanctions when necessary.

Schools also need to monitor that policies are being applied uniformly in each classroom. Each subject area needs to develop systems to monitor and check for authenticity, and these systems need to be integrated into the school's overall policy. If the school has other curriculums running alongside the Diploma Programme, the question arises as to whether all students are to be held to the same standards. This provides one illustration of the need for a whole-school approach to programme development.

## Assessment policy

The IB publication *Diploma Programme assessment: Principles and practice* explains the rationale behind assessment in the programme. Some assessment practices in the Diploma Programme may well be very different from current school practice, so it is essential that schools fully understand the IB's expectations and apply these to the school context through their assessment policies. Some key features of Diploma Programme assessment include:

- the emphasis on criterion-related, as opposed to norm-referenced, assessment (this method of assessment judges students' work in relation to identified levels of attainment, and not in relation to the work of other students)
- the distinction between formal IB assessment (summative assessment that is used by the IB to judge student performance) and the supporting formative assessment processes schools need to develop for themselves
- valuing the most accurate demonstration of student performance, not just averaging attainment grades over a reporting period.

Reporting will have an impact on assessment practices in a school and on the relationship with both parents and students. Reporting can also have an impact on teaching and learning and, therefore, it is important that school reporting practices reflect Diploma Programme assessment principles. Unless there is a requirement to assess and report based on Diploma Programme assessment principles, it is likely that teachers will fall back on familiar practices, with a detrimental effect on the development of the programme.

## Language policy

(See also *Guidelines for developing a school language policy*.)

Language and mother-tongue maintenance policies are central to providing access to the Diploma Programme. Students who do not have the school language of instruction as a first language might need language support (see the IB publication *Learning in a language other than mother tongue in IB programmes*). The IB offers students the opportunity to study their best language through the school supported self-taught option. If a Diploma Programme student requires a language A1 that is not automatically available, a special request may be submitted to the IB (see the *Handbook of procedures for the Diploma Programme* for details). Schools need to look to the years leading up to the Diploma Programme to ensure that students are maintaining their mother tongue and developing proficiency in the school's language of instruction.

## Special educational needs

(See also *Candidates with special assessment needs*.)

The IB supports inclusive practices and believes that all students should be allowed to demonstrate their ability under assessment conditions that are as fair as possible. Where standard assessment conditions could put a student with special educational needs at a disadvantage, special arrangements may be authorized. This information is available in the *Handbook of procedures for the Diploma Programme* and on the OCC.

## Information and communication technology (ICT)

The document *Programme standards and practices* (September 2005) refers to schools allocating "appropriate" electronic resources to support the teaching of the programme. Because the amount of ICT infrastructure a school can afford is a significant financial issue, expectations for authorization and evaluation are not defined in absolute terms. The following points, however, should be considered.

- Information literacy, in the broadest sense, is a competence that students need to develop as part of learning how to learn.
- ICT provides a rich environment for learning beyond the classroom. Therefore, the development of virtual learning environments should be encouraged as a means to enhance access to course materials and to extend collaborative learning.

- ICT provides unique opportunities for creative learning through student collaboration and the use of digital media products.
- ICT can be effectively used in supporting the school's assessment policy, particularly in formative and peer-evaluation activities.
- ICT plays a critical role in accessing IB networks and communities of practice. Increasing access will support programme implementation, creative teacher professionalism and student learning.

### Consolidation phase

Implementation needs to be followed by ongoing evaluation, with follow-up policy modifications and action plans to correct practices that are not working well. This evaluation, and the consequent development, needs to start immediately after authorization; it must not wait until the official IB evaluation process that occurs every five years after initial authorization. The authorization team will have made recommendations that will provide an immediate agenda for action.

Particular attention needs to be given at this stage to ensure that teachers are correctly understanding and interpreting IB subject guides and assessment practices. A high priority should be given to creative teacher professionalism (see "Professional development") designed to reinforce and develop understanding. As students complete formal IB assessments, it is possible for the school to gather detailed feedback on student performance by means of subject reports, feedback on internal assessment and any enquiry upon results (see the *Handbook of procedures for the Diploma Programme* for further details).

There needs to be a regular review of the curriculum and course structure, unit plans and other curriculum documentation. Disaggregating the data from examinations results, reflecting on unit plans, collaboratively planning the curriculum, and the setting of specific teaching goals are all useful curriculum development strategies.

Some schools use a curriculum council to decide all changes to the curriculum framework and the subjects offered. These councils often involve student and parent participation, in addition to teachers and school administrators, and provide a forum for open consideration of the strengths and limitations of the school's educational programme. The curriculum review process should also be used as one forum to discuss how to further develop the IB learner profile and to enhance the educational experience of students (see "Developing the IB learner profile" and "Teaching, learning and assessment").

It is a useful practice to maintain a file for each of the programme standards and practices, collecting evidence from various sources over time. This will help the school to make a critical assessment of its progress against each standard in the run-up to the next five-year programme review.

### Continuous improvement

This phase, after several years of running the programme and having dealt with many of the initial challenges and barriers, is perhaps the most challenging. Gone is the sense of urgency and impetus for change that came with the original implementation of the programme. Schools need to build a long-term capacity for cyclical review and programme development. Systems are needed to monitor four key areas:

1. ongoing community-wide understanding and commitment to the aims and philosophy of the Diploma Programme
2. the school's commitment to teaching the curriculum to the best of its ability
3. access to the curriculum (see "Building an accessible programme")
4. ongoing professional development.

Communication remains as important as ever, but now the needs of the school's community are more diverse. New teachers and parents will still need to learn about Diploma Programme basics but there is the

opportunity for experienced teachers and others to be involved directly in evaluative and developmental work. The following points should be considered.

- Induction of new teachers—some new teachers will be joining experienced departments while others will be working on their own. Schools will need to identify experienced teachers and ask them to help new teachers who will be working on their own. Many schools write introductory handbooks or sections in the school’s teacher handbook to support this process.
- Communication with parents and students who are new to the Diploma Programme—induction will be required for parents and students who are considering entering the programme, as well as for those who have just started the Diploma Programme. How will the school meet the needs of different groups of parents? How will the school balance the needs of those who are new to the programme and those who think they are already well informed?

Schools should plan to involve students and parents in dialogue, gathering feedback about the Diploma Programme to inform the school’s curriculum review cycle. Focus groups and surveys are useful strategies. Regular community involvement also helps to foster support for the programme and its place in the school community.

An ongoing concern for schools is keeping up to date with information on new developments and changes in the Diploma Programme. While the Diploma Programme coordinator has a key role to play, all teachers should regularly visit the OCC, which has posted resources and discussion forums to support every subject teacher.

Schools should periodically review their own philosophy and mission statement to ensure that these agree with the IB’s mission statement and philosophy, and reflect what is actually taking place in the school as a whole. Specifically, the school leadership team needs to consider how the core elements of the Diploma Programme, the IB learner profile and the fostering of lifelong learning relate to other curriculums being offered in the school.

Developing and maintaining the school as a professional learning community becomes the highest priority (see “Professional development”). While this will not be new, the opportunity for reflection, innovative professional development and practice might grow because less time needs to be spent on basic implementation. Teachers should be encouraged to become directly involved in IB work as examiners and participants in curriculum review and other meetings. They can train to become workshop leaders and/or team members for authorization and evaluation visits. This provides significant benefits to the school as teachers learn to better understand IB processes and practices and can use this experience to train others in the school and to take a leading role in improving the delivery of the programme.

The need for teachers to continue to work closely and collaboratively on sharing good practice, discussing student progress and highlighting opportunities for interdisciplinary learning (in the TOK course in particular—see “Teaching, learning and assessment”) will always be a priority.

## Induction of students: Providing students with a smooth transition into the Diploma Programme

Students follow numerous educational pathways leading to the Diploma Programme as the IB stipulates no formal entrance requirement. The IB continuum of education, as one option, is designed to facilitate a smooth progression. Whether or not the school offers the IB Primary Years Programme and IB Middle Years Programme, vertical planning between Diploma Programme teachers and those in earlier years is essential. The curriculum continuum needs to be mapped and written so that it represents a consistent and coherent progression.

Schools need to ensure that students are adequately prepared. Each Diploma Programme subject guide specifies any prior learning that is presumed before starting the course. This should be considered together with syllabus and assessment details (also contained in each subject guide) for a comprehensive understanding of course expectations. In addition to subject-specific knowledge and skills, students will need to develop and display a number of linguistic and transdisciplinary competencies, skills, strategies and attitudes that are consistent with the learner profile in order to be successful. While these form the core competencies of “learning how to learn”, and will be reinforced and developed over the course of the two years, some students might need specific support early in the programme in order to develop these. The core competencies include:

- independent study skills
- the ability to work collaboratively in groups
- good reading comprehension and written production in the student’s best language (this might be different from the language of instruction of the school)
- reasonable language skills in the language of instruction and examination (the guidelines provided in *Learning in a language other than mother tongue in IB programmes* must be respected)
- research skills—the ability to engage in authentic research by finding, evaluating and appropriately using a wide range of different source material
- the writing process—an ability to write independent, critical essays, presenting drafts while maintaining academic honesty by consistent use of an appropriate method of citation and referencing
- investigative science practical skills—the ability to generate a hypothesis, design and carry out experiments and analyse data
- literary skills—close reading of texts with a focus on analysing literary technique
- information literacy skills—the ability to effectively use a variety of electronic and other media in support of learning and the production of assignments
- presentation skills—the ability to make an oral presentation to others
- the ability to work independently on portfolios and projects in a number of subjects
- reflective practice—an ability to show initiative, critically evaluate one’s own work and the work of others, reflect on progress and set goals.

The Diploma Programme is demanding in terms of time commitment and it is important that students develop effective time-management skills from the start. This can be facilitated by ensuring students understand the expectations before the course starts. Time management needs to be supported by teachers who understand that their subject is one of six (plus the core) and collaborate on setting assignments in a manageable way (see the timeline example provided in “Curriculum design and scheduling”).

## The role of the Diploma Programme coordinator

A key leadership role in the implementation and development of the programme is provided by the Diploma Programme coordinator. It is important that the job description of the coordinator includes recognition of this leadership function, in addition to the management roles of general programme administration and communication. Diploma Programme implementation requires significant expertise in change management and a detailed understanding of the principles and practices of the Diploma Programme. The coordinator, acting together with other school leaders, needs to have the authority to plan and manage the processes of change necessary for developing the programme. They also need to have a good knowledge of the regulations and procedures described in the *Handbook of procedures for the Diploma Programme* and the *General regulations: Diploma Programme*. The coordinator needs sufficient time allocation to do the job properly, reflecting the extensive demands of the role, and needs to be part of the school leadership team, in order to raise the profile of the Diploma Programme at the highest level. Many schools also recognize the seniority of the post-holder with a title such as “Director of year 11 and 12 studies and Diploma Programme coordinator”.

The coordinator has responsibility for communicating information to all members of the school community, administering all internal and external assessment and acting as the primary point of contact between the school and the IB. The following illustrate some of the additional aspects of this role that should be taken into consideration.

## **1. Guiding the school community**

Guidance must ensure that the school community (students, parents and teachers) understand the course selection choices available, which can involve complex decision-making. Implicit in this is the need not only for clear knowledge of the IB regulations for course selection but also an understanding of the consequences for individual students in terms of appropriate balance, course load, stress and suitability for entry into higher education. In many schools, this process of guidance in course selection must begin well before the first year of the Diploma Programme. The coordinator may be involved in the publication of documentation for the school community to support such guidance. This role is often fulfilled in collaboration with the counselling services department.

## **2. Determining admission to the Diploma Programme**

The coordinator needs to be closely involved in developing and administering the processes for student admission into the Diploma Programme; this may take the form of student interviews, testing or evaluation of teacher recommendations.

## **3. Working with Diploma Programme teachers**

A significant aspect of the coordinator's role is to ensure that Diploma Programme teachers gain a full understanding of the programme as a whole. In the implementation stage of the Diploma Programme, the coordinator may well be involved in working with teachers to ensure that they fully understand their own subject's requirements and have a broader awareness of the whole of the programme and its requirements. This is often achieved through routine meetings with teachers and serves to provide them with a good understanding of the demands that the programme places on the student and the forms those demands take, thereby putting their own subject into perspective. These meetings can also be critical in providing time for teachers to work together to develop effective timelines for assessment, thereby ensuring that students are not unduly taxed by multiple assignments being due at any one time. In addition, these meetings allow teachers to share methodologies for ensuring academic honesty. Encouraging teachers to actively use the OCC and to participate in its forums is another important consideration.

## **4. Scheduling Diploma Programme courses and the school calendar**

The coordinator will have a role to play in creating, or working closely with the creator of, the school schedule and calendar to ensure that all courses meet Diploma Programme requirements and that students gain the maximum benefit of concurrency of learning whenever possible. Scheduling can be a complex issue, particularly when other state, provincial or national courses have to be incorporated, and it is frequently connected with a detailed analysis of timelines for internal and external assessment completion and submission. Linked to this, the coordinator has a role to play in supporting the head of the school in ensuring that school policies support the ongoing development of the Diploma Programme and that excellent teachers are recruited and retained.

## **5. Supporting the core**

In some schools, the Diploma Programme coordinator has the additional responsibilities of organizing the structure of CAS and the supervision of the extended essay in the school. This is not the ideal situation, and it is preferable that these tasks be assigned to other staff.

The CAS coordinator function includes developing opportunities for students to engage in authentic experiential learning and to reflect on their experiences in meaningful ways. This is time-consuming and requires close cooperation with many other school colleagues, who need to be involved in supporting CAS. The coordinator has a leadership function, if not a specific management responsibility, in ensuring that CAS is properly supported and valued in the school.

Many coordinators are also responsible for overseeing the extended essay, ensuring that students fully understand the nature of the essay, training potential teacher-supervisors, and working to develop an appropriate timeline for production of the essay. Depending on the number of students involved, this can also be an extensive task.

The coordinator should ensure that the TOK teacher and the individual subject teachers collaborate in developing an understanding of the requirements of TOK across the Diploma Programme.

## **6. Articulating curricular expectations leading to the Diploma Programme**

In some schools, the coordinator may be involved in reviewing the curriculum in the school years preceding the Diploma Programme. In such cases, the coordinator may work with heads of departments or curricular specialists to try to ensure that the curriculum provides adequate preparation in course content and assessment procedures, and potentially gives the maximum number of students the opportunity to enter the Diploma Programme. In the case of schools with a Middle Years Programme (MYP), the coordinator would naturally be in regular contact with the MYP coordinator to ensure coherent programme articulation.

## **7. General administration**

The Diploma Programme coordinator is responsible for managing a large number of essential administrative tasks, detailed in the *Handbook of procedures for the Diploma Programme*. These include, but are not limited to:

- registering students as examination candidates
- entering data on the IB information system (IBIS), including provisional grades
- student mark entry
- supporting students with special assessment needs.

Coordinators usually also play a role in organizing and managing the examinations and must ensure that all teachers are following the correct procedures and practices in monitoring assessment tasks and sampling work to be forwarded to the IB.

## **8. Designing a database for the IB community**

For many schools, it is important to maintain contact with alumni of the Diploma Programme and to develop a database of examination results, higher education experience and contact information. This type of longitudinal data analysis may be the responsibility of the coordinator.

## **9. Administering the IB Diploma Programme budget and teacher professional development**

The coordinator is frequently responsible for administering the budget allocated to the Diploma Programme. This might include postage and courier costs, the purchase of publications, and annual and examination fee payments. In addition, the coordinator will wish to ensure that teachers have received appropriate IB-authorized training, frequently a very significant annual budget item for IB World Schools.

## 10. Organizing and completing the five-year programme evaluation

The coordinator will have the prime responsibility for ensuring that all stakeholders have access to, and comprehend the expectations explicit in, the document *Programme standards and practices* (September 2005). This understanding will be the basis of an effective review process, which the coordinator will spearhead, ensuring completion by the due date for submission to the IB.

## 11. Student progression to further education

The coordinator will have a role in facilitating student progression to further education, communicating with universities and explaining to students and parents the processes and policies involved. One important element of this is ensuring that students and parents are aware of specific university admissions requirements and any impact these may have on subject selection (see the article on “University recognition” in *Rules for IB World Schools: Diploma Programme*). This role may go beyond communication of existing opportunities to a proactive engagement with universities, and provincial and national authorities in order to improve recognition of the diploma. The coordinator will need to ensure that all requests for results to universities and legalization of diplomas are processed.

The role of the coordinator in Diploma Programme implementation and development is extensive. The most intangible, but also probably the most significant, aspect of this role is the part played in ensuring that the school embraces the IB’s mission statement and its learner profile, ensuring that the school is able to demonstrate in an explicit way how the structure of the Diploma Programme and its implementation are furthering both (see “Developing the IB learner profile”). In this way, the coordinator fosters the spirit of an international education in the school, one that will hopefully engender in graduating students the skills, wisdom and cultural understanding necessary to engage with the significant global issues we face now and in the future.

# Building an accessible programme

## Introduction

The concept of access was introduced in the section on “Philosophy and principles of the Diploma Programme”, which also identified a number of ways in which access for students to the Diploma Programme could be improved. The focus here is on considering ways in which access can be increased within existing IB World Schools, which often experience common barriers to student access.

Schools are encouraged to consider the following issues, in the context of their own situation, and to implement strategies to increase participation in the Diploma Programme.

## Choosing the Diploma Programme or individual subject certificates

The Diploma Programme is academically demanding and it may not be the best educational choice for all students in a school. However, success is possible for a much wider range of students than is often perceived. The experience of many schools where there is open admission for all students into the Diploma Programme supports this assertion. Even when students fail to attain the full diploma, they often comment on how the educational experience has enriched their lives and better equipped them to be successful in further education and in their professional and personal lives.

It is expected that students at IB World Schools will be encouraged to pursue the Diploma Programme whenever it is appropriate for their educational needs, and not just encouraged to take individual subject certificates. The reason why this is preferred is that the whole Diploma Programme provides for a breadth and depth of educational experience that goes beyond a collection of individual subject certificates.

## Student selection process

Enrollment and admission criteria vary widely among schools. While a policy of open enrollment offers the broadest access to the programme, this may not be a possible or practical option in some schools. If a school has an admissions policy that is not open to all, the following factors should be considered.

- Economic factors are the greatest limitation on students’ access to IB programmes. In its report *From Growth to Access: Developing an IBO access strategy*, published in 2006, the IB governing body recommended that, where possible, schools should be encouraged to select students on merit, on the basis of their suitability for the programme without consideration of their ability to pay. Clearly this is easier for schools where state funding is available to support programme implementation, but a number of schools also secure their own funding sources and support access with bursary and scholarship schemes. Some governments have established grant and scholarship programmes to assist families on a low income to meet examination fees. In other areas, scholarships have been made available, fund-raising efforts have been employed and parent groups have contributed. Schools are encouraged to explore the full range of financial resources that may be available to their students. Being aware of the costs that are passed on to students and the potential impact on access is essential.

- While selection based on merit is more economically equitable than selection based on an ability to pay, the IB believes that the Diploma Programme is not for an academic elite and that all students who can benefit and succeed should be encouraged to take part. Success in the Diploma Programme is best measured by the value added in individual student development and not by the diploma score. A 24-point diploma result for a student with limited abilities who has shown significant improvement over the two years can represent a greater success for both the individual and the school than a 45-point diploma for an academically gifted student who was outstanding before starting the programme.
- Care must be taken with any application process to ensure that students from groups who have been historically under-represented do not feel disenfranchised. Some schools seeking to expand access use multiple sources of information about the student's background to obtain a holistic view of the applicant. This allows those schools to include a broader range of students.
- The admissions process must be transparent, with the criteria used for admission clearly stated in an admissions policy that is available to the whole community.

Other factors to consider in student admission policies include the following.

- There should be multiple points of entry to, and different pathways through, the years leading up to the Diploma Programme, with access in mind. Within each pathway, schools should ensure that the key skills and knowledge needed for success in the programme are developed.
- Schools should recognize that motivation, self-discipline and perseverance play a key role in determining student success in the Diploma Programme. These can be difficult to measure. Various writing tasks or interviews are employed by some schools in an effort to determine students' attitudes and abilities in this area.
- Schools have an obligation to educate their entire school community about the philosophy of the IB and the benefits and demands of the programme. This will help students make an informed decision about enrolling in the Diploma Programme, taking their skills, interests and knowledge into consideration.
- Materials relevant to admission to the programme should be readily available and widely distributed. In addition, applications and instructions should be available in all languages used by the community.
- When the student is transferring from another school to start the Diploma Programme, every effort must be made to ensure the transition is as smooth as possible, including clear and comprehensive communication between the schools, the student and parents.

## Schedules and course offerings

Within many schools, the daily structure of courses may be, in itself, an obstacle to participation. When IB subject lessons overlap, limiting student choice, or students are required to attend lessons outside the normal school day, some students will become excluded. In many instances, some flexibility on the part of the school will be required in order to provide students with access to all elements of the Diploma Programme while still meeting requirements set by local or national governments.

Issues that schools encounter while selecting courses and determining schedules include the following.

- Accommodating local and state curriculum requirements—many IB World Schools need to work closely with local, state, provincial and national governments to allow for substitutions and/or waivers for various graduation and diploma requirements. In addition, IB course outlines may be developed that demonstrate achievement of standards set by external governing bodies.

- Extra-curricular activities—students are involved in a multitude of sports, musical programmes, clubs, academic competitions, community service and other pursuits outside the normal school day. This participation is essential, as it enables students to develop a rich CAS experience and furthers the mission of the IB. Schools should develop schedules that support students' continued involvement in outside interests while still allowing them access to the Diploma Programme.
- Course offerings—each IB World School is encouraged to offer students the widest possible range of choices from the six subject areas. Within the financial and scheduling constraints faced by schools, care should be taken to offer a programme of studies that is relevant to students' skills, interests, linguistic background and potential university requirements. These aspects should also be taken into consideration when choosing which options to offer for study and in designing courses and reading lists within the subjects. Offering a programme that does not meet the needs or interests of students will limit access. There are increasing opportunities for students to complete online certificates as part of their Diploma Programme for subjects that the school may be unable to provide themselves. This is one practical way in which student options can be expanded by the school. See the OCC for further details.
- Course selection—this refers to students' selection of IB courses from those offered at the school. Ideally, students will be enrolled in a schedule of classes that is challenging, yet appropriate to their abilities. This requires effort on the part of teachers, counsellors and the Diploma Programme coordinator to educate students and parents regarding assessment, expectations and content of courses. Students' current level of achievement, interests and future academic plans should guide this process.
- Course availability—the Diploma Programme coordinator needs to check the future availability of subjects offered by the IB; it cannot be assumed that all subjects will continue to be offered in the future. Details are provided in the *Handbook of procedures for the Diploma Programme*.
- Internal timelines—teachers should work with the Diploma Programme coordinator each year to develop a calendar of internal deadlines for IB assessments, the extended essay, and completion of CAS requirements. As much as possible, this calendar should take into consideration students' involvement in extra-curricular activities, important school events, daily homework requirements and family obligations. It should include internal deadlines for the submission of all internally and externally assessed (non-examination) components, predicted grades and the internal assessment samples to the Diploma Programme coordinator. This will allow the coordinator sufficient time for mailing to examiners, plus transit time. This calendar should be consulted by teachers when setting daily homework and classroom assessments. A sample calendar is provided in figure 2 at the end of the section on "Curriculum design and scheduling".

## Language options and language support

In many schools, the maintenance and recognition of students' mother-tongue language(s), choices for languages A1, A2 and language B requirements, and the availability of school-supported languages A1 can impact on student accessibility to the Diploma Programme. Because language demographics vary widely, each school should develop a language policy to address these issues (see *Guidelines for developing a school language policy*).

Access can be broadened when a school fully understands and supports the needs of students for whom the language of instruction in the school is not their best or first language. Teachers of all subjects need to understand their role in supporting student language development (see *Learning in a language other than mother tongue in IB programmes* for further guidance).

Students should be given the opportunity to study their best language/mother tongue. If the school cannot offer the language itself it can still register the student as a school supported self-taught candidate (see the *Handbook of procedures for the Diploma Programme* for further guidance).

## Students with special educational needs

It is important that teachers and administrators are aware of the many opportunities available for students with special educational needs and that the school actively promotes the participation of these students as part of encouraging access. The Diploma Programme has well-established support mechanisms for special educational needs students outlined in the publication *Candidates with special assessment needs*. The identification of any student with a learning issue should be carried out prior to starting the Diploma Programme. There are two procedures in place to cater for special requirements at any time via the D1 and D2 application process. See the *Handbook of procedures for the Diploma Programme* for detailed information.

## Ongoing support for teachers and students

Teachers require time to meet students and monitor their progress, as well as collaborating on curriculum development. The needs of part-time teachers also need to be considered so that they receive appropriate levels of professional development and support.

With access comes a more varied student population. Some students will enroll who are highly motivated, but have not yet acquired the knowledge or skills that will help them be successful in the programme. Guidance counsellors, teachers and the Diploma Programme coordinator should carefully monitor each student's progress and intervene as necessary with strategies to increase the student's success as the school year progresses. In addition to subject-specific knowledge and reading and writing skills, students should receive instruction and ongoing support for developing study skills and improving time management. Teachers should have opportunities to learn more about strategies such as scaffolding and the differentiation of instruction as part of their professional development. They will be teaching the Diploma Programme curriculum to a student body that is likely to include learners for whom the language of instruction is not their mother tongue as well as students with special educational needs.

Some students may perceive that they have a weakness in a subject area required for completion of the programme. Opportunities outside the classroom to help students reinforce their skills and knowledge in specific subjects, or in reading and writing, can help students gain the confidence they need to access the Diploma Programme.

Schools need to ensure that students and teachers have access to the information technology required to complete their IB coursework and/or assessments and that they develop the knowledge to use it effectively. There are some requirements that schools and students need to be aware of. For example, graphic display calculators have different capabilities. Specifications about what is acceptable are defined in the *Handbook of procedures for the Diploma Programme* and in the subject guides, and are also updated on the OCC.

# Curriculum design and scheduling

## Introduction

The IB Diploma Programme is flexible enough to accommodate the needs and interests of individual students while maintaining the principle of concurrent learning of a broad and balanced curriculum. The programme is designed to be a two-year course of study with all subjects and core requirements studied concurrently. Students are expected to build a degree of interdisciplinary as well as subject-specific understanding. The programme should equip students with a powerful set of holistic skills that can prepare them not just for higher education but for the real-life challenges they will face in the future.

## The school's choice of Diploma Programme subjects

The inherent flexibility in the Diploma Programme model (see the *Handbook of procedures for the Diploma Programme*) can present challenges for a school in terms of the subject choices available to students. Schools will need to take into consideration factors such as staffing, facilities, the incoming cohort's academic background, and regional university entrance requirements. Common questions to be considered when drawing up a school schedule (or timetable) include the following.

- How does the school build and update the master schedule to reflect the interests and abilities of its students?
- How will the proposed programme allow the study of languages A1 other than the language of instruction in the school?
- Which group 2 subjects and levels will be most appropriate based on the students' previous language study?
- Which sciences will be offered, in which combinations and levels?
- Does the size and composition of the initial cohort justify the inclusion of all four IB mathematics courses?
- Are certain IB subjects required in order to fulfill state, provincial or national curricular requirements?
- Do local or national university entrance requirements require the school to offer certain subjects at certain levels? Many countries and universities have highly specific requirements for subject combinations and results before they allow tertiary study. Some courses, for example, school-based syllabuses, might not be recognized by universities of national/federal education authorities.

It is important to note that initial subject offerings will have considerable implications for students' ability to access the Diploma Programme. Subject choices open to students can dictate whether the programme encourages maximum participation or allows only a small group of students, who possess specific skill sets, to complete the programme. The scheduling of classes in the Diploma Programme can also have great impact. If courses are scheduled at times that conflict with students' extra-curricular commitments (for example, band practice, theatre rehearsals, sports teams) this will diminish the attractiveness of the programme.

Students should be expected to take subjects and levels that provide an appropriate degree of challenge rather than making choices to maximize grade results. It does not always follow that a higher diploma score represents a better level of achievement. One example of this is when a student is entered for a language course that, due to prior experience with the language, he or she finds easy. The student may attain a grade 7 in this course but would have been better served educationally by experiencing a more demanding language level and attaining, for example, a grade 4.

Schools must follow the guidelines presented in the group 2 language subject guides:

It is essential that Diploma Programme coordinators and teachers ensure that students are following the course that is most suited to their present and future needs and that will provide them with an appropriate academic challenge. The degree to which students are already competent in the language, and the degree of proficiency they wish to attain by the end of the period of study, are the most important factors in identifying the appropriate placement point on the spectrum of modern language courses available. Appropriate placement is the responsibility of teachers and coordinators, not the IBO.

## The Diploma Programme and the school schedule

Every attempt should be made to ensure that the IB's mission statement and Diploma Programme principles can be fully supported by the schedule. The structure of schedules will vary enormously across IB World Schools and any schedule is bound to be a compromise between benefits and constraints. The perfect schedule does not exist. With this fact in mind, the following minimum expectations need to be respected.

- The schedule must deliver blocks of time for each of the six academic groups that are consistent with the published guidelines (see the *Handbook of procedures for the Diploma Programme*) for the recommended teaching hours of 240 hours for HL courses, 150 hours for SL courses and at least 100 hours for TOK. In addition, appropriate provision must be made for the extended essay and the CAS programme.
- All HL courses and at least one SL course must be taught over the two years of the programme. It is permissible to teach up to two SL subjects over one year. It should be noted that this exception is designed to offer flexibility to schools where genuine need for this arrangement exists due to unavoidable scheduling constraints. This is not intended to be a routine aspect of Diploma Programme design; all courses are designed as two-year learning experiences.
- In creating a schedule, it should be understood that different time allocations may suit different subject groups. For example, subjects in groups 4 and 6 are generally suited to longer blocks of time.
- The core must be taught/experienced over two years. TOK is a course that encourages reflection on the nature of human knowledge and should be taught with reference to student experience in the classroom, which requires concurrency of learning. Some schools choose to finish the TOK course slightly before the final examinations so that students can start to prepare for final assessments. Similarly, CAS needs to involve students over the two years, but it is reasonable to allow students to finish the programme a couple of months before final assessments to allow them to concentrate on examination preparation.
- Beginning to teach Diploma Programme courses early, with a view to early completion, is inconsistent with the principle of concurrency and holistic learning. However, learning is always progressive; students in the year leading to the Diploma Programme need to have a programme of study that equips them with the skills, knowledge and attitudes required to be successful in the programme. There should not be a sudden jump in expectations or standards as students start the Diploma Programme.
- CAS is organized around learning outcomes. Like the IB learner profile, these are relevant outside the two years students spend in the Diploma Programme. Students are, however, required to complete the CAS requirements concurrently with their academic learning, so that their diploma experience is broadened. For this reason, students cannot transfer learning experiences gained prior to the start of the Diploma Programme and count them as part of the CAS programme, even though these are valuable experiences in themselves.

## Elements of Diploma Programme design and scheduling

### Certificate students

All Diploma Programme schools must provide the full Diploma Programme. However, in some school populations the full Diploma Programme may not be appropriate for all students. While many schools require all students to complete the full Diploma Programme, others allow some students to sit individual subject certificates. They view this as one way of expanding the school population involved with the IB's unique philosophy of education and also as a potential means to increase numbers enrolled in the Diploma Programme over time. Schools in the implementation phase will need to give careful consideration to the possible implications of allowing certificate students.

### Extra certificates

For various reasons, including personal interests, school regulations or university entrance requirements, schools may allow students to register for a further certificate subject in addition to the six required for the diploma. Beyond the scheduling issues potentially presented in such cases, care should be taken to ensure that the student does not suffer undue stress as a result of the additional academic burden. It is better to study the six required subjects and the core well, rather than take on an extra load that is bound to have an impact in terms of the time that can be spent on the full diploma. Schools are reminded of the option to study four subjects at HL, rather than three (see the *Handbook of procedures for the Diploma Programme*). For some gifted students this may provide an appropriate challenge without entering them for extra certificates.

### Non-regular diplomas

In rare cases, schools may seek to offer a student a choice of subjects that is different from the choice of subjects specified in the regulations for the Diploma Programme. This can only arise when a prescribed condition of entry into an institution of higher education makes it necessary for a student to modify the programme. To request such a modification, the school must provide the IB with clear evidence that specific subject substitution is necessary, in the form of actual pages of the prospectus from the institution concerned. Schools must consider the possibility of the student pursuing an extra certificate subject before submitting a request for a non-regular diploma. The *Handbook of procedures for the Diploma Programme* details the requirements for submitting such a request.

### Higher level (HL) and standard level (SL) courses scheduled together

Schools are often presented with a situation whereby it is desirable to schedule HL and SL students in the same class for a given subject. This practice is understood and accepted. Wherever possible, subject curriculum review and development takes this into account and many subjects stipulate core HL/SL content and extension HL work to facilitate this practice. Some subjects lend themselves more readily to this arrangement than others. Schools must take great care in programming such classes, particularly with regard to options studied and assessment timelines. It is essential that HL students are given the extra support and time they need and that HL and SL students do not simply complete the same course. This will inevitably result in either too much time for SL students or too little time for HL students. One effective solution is to schedule most classes as HL/SL with additional HL classes or blocks of time dealing with HL extension work. Some schools also use virtual learning environments to support HL extension activities.

## Classes combining IB curriculums with other school, state or national curriculums

When a school must combine the teaching of Diploma Programme classes with other curriculums, great care must be taken to ensure that the integrity of the IB Diploma Programme curriculums and assessment are maintained, and that students are not being disadvantaged in any way by the nature of this arrangement.

## Supporting the mother-tongue language and the language of instruction

Many IB World Schools have students who are well qualified to enter the Diploma Programme but for whom the language of instruction is their second or even third language. This can present challenges to the process of Diploma Programme design for these students. The IB publications *Learning in a language other than mother tongue in IB programmes* and *Guidelines for developing a school language policy* should be consulted in relation to this issue.

A powerful feature of the Diploma Programme is the facility it affords schools to offer multiple languages A1. Courses may be taught or offered as school supported self-taught, which enables students to develop their mother tongue. A school can request a language that is not automatically available through the special request process (see the *Handbook of procedures for the Diploma Programme*). Wherever possible, schools should offer students the possibility of studying their mother tongue as a language A1 course. Depending upon the student's fluency in the language of instruction of the school, he or she could complete another A1 course or language B in the school's language of instruction. Students will still have to study their other subjects in the language of instruction of the school, so it is essential that all teachers recognize their role as language teachers as well as subject specialists.

In offering school supported self-taught language A1 courses, the Diploma Programme coordinator will need to ensure that all course requirements are met. A teacher needs to be available at the school to assist the student in the target language in terms of selecting appropriate works, signing off on the world literature paper(s) and helping supervise the oral exercises. While this teacher does not have to be able to speak the target language, they do have to understand all the requirements and expectations.

## School-based syllabuses

A school-based syllabus (SBS) is an opportunity for schools to offer a course of specific interest or to develop a new SL course as part of a Diploma Programme. The requirements for submitting a proposal for an SBS to the IB are outlined in the *Handbook of procedures for the Diploma Programme*. The requirements for such a proposal are extensive. A proposal will not be approved by the IB unless the syllabus is seen as meeting the requirements of one of the Diploma Programme subject groups and is capable of being assessed appropriately. In addition, the SBS must reflect the IB's mission in terms of delivering an international perspective. Schools will also be advised, if their proposal is similar to an existing SBS, to contact and collaborate with the host school of that syllabus. While the IB recognizes the equivalency of all SL courses, schools should be aware that the IB cannot guarantee that all universities will agree with this judgment (see the article on "University recognition" in the *Rules for IB World Schools: Diploma Programme*).

## School assessment timelines

Appropriate internal assessment timelines are a very useful instrument in helping students and teachers realistically plan their work in manageable loads, recognizing that final assessment requirements cannot all be completed at the same time. IB World Schools need to develop timelines that are sensitive to their own specific environment. This can only be accomplished by including input from teachers, and feedback from students, in their construction.

Well-designed timelines reduce stress on students and allow time for teachers to provide feedback on drafts, check for authenticity, mark final pieces of work and prepare moderation samples in good order before any due date. Effective timelines reflect a culture of collaboration among the Diploma Programme teachers, whereby teachers understand both the “big picture” of Diploma Programme design and the basic knowledge of each other’s subject assessment requirements. The coordinator frequently has the responsibility for ensuring that the school faculty meets in a timely manner to coordinate such timelines and develop these understandings. Schools that schedule the Diploma Programme concurrently across both years of the programme are likely to have greater flexibility in developing assessment timelines.

Figure 2 illustrates **some** of the key events that must be scheduled and represents a **possible** example of a timeline. In reality, a school timeline will need to be much more specific, detailing precise dates, and relate directly to the circumstances of the school.

Year before the start of the IB Diploma Programme	
Semester 2	<ul style="list-style-type: none"> <li>Introducing the Diploma Programme requirements to prospective students and parents</li> <li>Mentoring students regarding subject and level choices</li> <li>Initial student subject selection</li> <li>Scheduling for the Diploma Programme</li> </ul>
IB Diploma Programme year 1	
Year start	<ul style="list-style-type: none"> <li>Final student subject selection</li> <li>Faculty meet to confirm Diploma Programme two-year assessment timelines</li> <li>Student and parent information events to outline expectations and timelines</li> <li>Introducing expectations for CAS</li> <li>Introducing expectations for the extended essay</li> </ul>
Semester 1	<ul style="list-style-type: none"> <li>CAS programme starts (early in semester)</li> <li>Internal coursework assignments start (for example, economics portfolio)</li> <li>Detailed explanation of the extended essay process with timeline</li> <li>Geography field trip</li> </ul>
Semester 2	<ul style="list-style-type: none"> <li>Language A1 oral presentations</li> <li>Language A1 world literature paper commences</li> <li>TOK presentations</li> <li>Extended essay student research question identified and supervisor established</li> <li>Formal CAS interviews with students</li> <li>Group 4 project completed</li> <li>Year 1 examinations</li> <li>Year 1 reporting</li> </ul>

IB Diploma Programme year 2	
Semester 1	<p>CAS programme and interviews continue</p> <p>Draft internal assessments due this semester (specific subjects and assignment detailed)</p> <p>Draft extended essay due early this semester</p> <p>Final extended essay handed in at the end of this semester</p> <p>Draft TOK essay due at the end of this semester</p> <p>Visual arts examination scheduled with visiting examiner</p>
Semester 2	<p>Trial examinations</p> <p>Trial examinations reporting</p> <p>Final internal assessments and externally assessed (non-examination) components due (specific subjects and assignment detailed)</p> <p>Language A1 world literature assignment completed, copied and sent to examiner</p> <p>Extended essay completed early this semester, copied and sent to examiner</p> <p>TOK essay copied and sent to examiner and course completed</p> <p>Language A2 written tasks completed, copied and sent to examiner</p> <p>Language A1 oral commentaries take place</p> <p>Final language B oral recordings copied and sent to examiner</p> <p>Internal assessment completed and marks entered</p> <p>Predicted grades submitted</p> <p>Internal assessment moderation samples selected, copied and sent to moderator</p> <p>CAS completion and CAS completion form submitted</p> <p>Theatre practical play analysis completed</p> <p>Musical investigations completed</p> <p>Final Diploma Programme written examinations</p>

**Figure 2**

*Example of an assessment timeline for schools to adapt to their own circumstances*

# Developing the IB learner profile

## Introduction

The learner profile highlights desirable student attributes that the IB hopes to develop through participation in its educational programmes. Although derived in its current form from the Primary Years Programme, the attributes of the learner profile have been embedded in the philosophy and inspiration for the Diploma Programme since it was initially developed in the 1960s. In addition to suggesting approaches to teaching and learning, which are considered in “Teaching, learning and assessment”, the learner profile also stresses the importance of broader attitudes and capabilities, which are the focus of this section.

One assumption of the Diploma Programme has always been that education does not begin or end in the classroom and that direct personal experience, in addition to academic study, is essential in educating the whole person. According to Peterson (2003: 45), Kurt Hahn’s educational philosophy influenced the initial development of the CAS and the extended essay requirements, emphasizing the importance of experiential learning and service. Hahn believed education should lead to self-discovery, compassion and purposeful action, which he expressed in the motto: “*Plus est en vous*” (more is in you).

There are a number of other important reasons for the emphasis placed on the learner profile attributes in the Diploma Programme.

- The relationship between affective and cognitive experience is being increasingly recognized and understood by cognitive scientists. We are learning more about how emotion is linked to cognitive functioning and performance and the implications of this for effective learning. See, for example, Immordino-Yang and Damasio (2007), who argue that cognition and emotion are profoundly interrelated, with important implications for educational practice.
- Universities and employers want students with a broad base of skills who have real-life experience in addition to good academic results.
- There is an increasing emphasis on connectedness in education, on the need to fit academic studies into a human and global context. The reality of our interconnected 21st-century world, our information society, is causing many educators to rethink and re-evaluate what is important and what we should be teaching in our schools. We are also recognizing the need to prepare students for the social and moral challenges that await them in such a complex world. The traditional academic disciplines alone will not prepare our young people for such challenges. Our students must develop the necessary skills, habits of mind and the moral and ethical values to be able to understand and manage the interconnectivity and complexity of the modern world.

## School culture

The learner profile is not confined to the classroom or to the CAS programme. It permeates the whole life of the school and needs to be considered in the context of the hidden curriculum as well as the formal, acknowledged curriculum. The formal curriculum can be defined as all activities associated with the school schedule, the school’s intended educational programme. The term “hidden” curriculum is sometimes used to describe the environment in which the formal curriculum is delivered and the unintended, unconscious or unplanned outcomes of teaching and learning. See, for example, Bulman and Jenkins (1988: 10) and Vallance (1991: 40).

In order to develop a school culture based on the learner profile, and to align the formal and hidden curriculums as far as possible, it is essential that the school's values and mission statement match the learner profile in action as well as in principle. Adults in the school—including the school leadership, staff and even parents—need to model the beliefs, values and behaviour indicated in the learner profile. Students must experience and contribute to the profile in the day-to-day life of the school.

In the IB publication *Programme standards and practices* (September 2005), standard A1 states: “There is close alignment between the educational beliefs and values of the school and those of the programme.” Many of the practices listed under A1, as well as other standards, require the school to actively promote a culture of learning consistent with the learner profile. A great deal of attention is paid to aspects of education beyond the formal, taught curriculum.

## What can schools do to support and develop the IB learner profile?

The existence of the learner profile provides an opportunity to engage school communities (governors, teachers, parents and students) in the debate about the place of values in schools and the purpose of education. The profile does not attempt to describe precisely how the attributes can be nurtured in a school or prescribe a list of practices that must be adopted. The act of “making sense” of the profile in the context of a school community is critical to its development and is the responsibility of each school. It is essential that students engage critically with the learner profile, and the values embedded in it, rather than accept them unconditionally.

Many IB World Schools explicitly develop and then apply profiles for the whole school community. Two possible examples are provided in figure 3 and figure 4 in this section. It must be stressed that these are only examples and, in order to establish ownership, each school should develop their own. The examples provided are adapted for school leaders and teachers. Some schools further develop the profile, deriving specific performance indicators, and use these for evaluation and recruitment purposes. Other schools have developed parent profiles, with the help of the parent association. These are distributed to all parents and used to support positive parental involvement in the life of the school.

Unless the learner profile is at the heart of school life, and is supported and nurtured, there is a danger that its lack of visibility will mean that it is not valued. Simply copying the profile and hanging it on the wall will not make it part of the life of the school.

It is essential that schools encourage leadership and management styles that support an environment conducive to the development of professional learning communities (see “Professional development”). Teachers need to be empowered and supported to become creative professionals. Trust engenders trust. School administrators need to empower teachers and teachers need to empower students. Small instances can be important and convey powerful messages. The recording of CAS provides a good example. If too much emphasis is placed on students collecting signatures and counting hours as evidence for completion of the programme, the implicit message is that they are not trusted and that CAS is a chore.

Particular attention needs to be given to the hidden curriculum and the unintended experiential learning that goes on around the school. This means that students should not only be involved in learning, but should also be given responsibility, independence and ample opportunities to play an active role in school life. Adults need to model the behaviour expected of students and to display positive professional relationships. They are expected to care about the atmosphere and climate of learning created in the classrooms and corridors, become involved with school activities beyond the classroom, and provide academic, social and emotional support to students.

IB learner profile attribute	Responsibilities	Indicators
<b>Inquirers</b>	Pedagogical leadership Demonstrate lifelong learning	Passionate about research into effective schooling, teaching and learning, management of change Constantly evaluating with a view to improving practice
<b>Knowledgeable</b>	Understand IB principles and practices Understand cultural and local contexts	Understands local context as well as being globally aware and concerned
<b>Thinkers</b>	Enhance the collective intelligence of the organization	Backs up decisions with clear, reasoned evidence of how conclusions were reached Thinks creatively
<b>Communicators</b>	Transparency Collaboration	All agendas are open Decision-making is collaborative Communicates in several languages
<b>Principled</b>	Accept responsibility for their actions and do not blame others	Decisions are based on ethical grounds Leadership is based on integrity, honesty, fairness and compassion
<b>Open-minded</b>	Value the perspectives of others that might be different from their own	Encourages an open, critical debate of issues Reacts positively to criticism from others
<b>Caring</b>	Sensitive to school climate Compassionate behaviour Support staff development	Good of the school comes before self-interest Models ethical behaviour Supportive of staff as well as students
<b>Risk-takers</b>	Visionary leadership Prepared to delegate leadership to others Courageous	Open to new and different ideas to improve the quality of the programme and the learning environment

IB learner profile attribute	Responsibilities	Indicators
<b>Balanced</b>	Development of the whole child emphasized Support Diploma Programme core	Looks for evidence of growth and development in all areas of school life
<b>Reflective</b>	Constructively self-critical Striving to improve	Encourages and facilitates evaluative feedback from the whole school community (students, teachers, as well as board)

**Figure 3**  
*Example of a learner profile for school leaders*

Note: While directed at the administrative leadership (school director, board principal, Diploma Programme coordinator), leadership should also be considered as devolved and situational, to include students, teachers and parents where appropriate.

IB learner profile attribute	Responsibilities	Indicators
<b>Inquirers</b>	Demonstrate lifelong learning Encourage student-led inquiry Seek professional development opportunities	Passionate about research into teaching and learning, and subject development Willingness to take on opportunities beyond classroom teaching (for example, examining)
<b>Knowledgeable</b>	Understand Diploma Programme principles and practices Understand cultural and local contexts	Excellent subject knowledge and knowledge of Diploma Programme curriculum and assessment practices
<b>Thinkers</b>	Model excellent thinking practice	Thinks creatively Explains to students how they reached answers and conclusions
<b>Communicators</b>	Listen and encourage students to speak up Share practice with colleagues	Allows students a role in decision-making Communicates in several languages

IB learner profile attribute	Responsibilities	Indicators
<b>Principled</b>	Fair and consistent dealings with students Accept responsibility for actions	Students are respected Ethically-based discipline is applied Honest with students and others
<b>Open-minded</b>	Value the perspectives of others that might be different from their own	Encourages an open, critical debate of issues Reacts positively to constructive criticism from others, including students
<b>Caring</b>	Sensitive to school climate Demonstrate compassionate behaviour Supportive of colleagues	Good of the school comes before self-interest Models ethical behaviour Interested in student welfare
<b>Risk-takers</b>	Visionary leadership Prepared to delegate leadership to others Courageous	Open to new and different ideas to improve the quality of the programme and the learning environment
<b>Balanced</b>	Considers role to be a teacher of the whole child not just the subject	Supportive of CAS, TOK and other holistic school programmes
<b>Reflective</b>	Constructively self-critical Always striving to improve	Encourages and facilitates evaluative feedback from students as well as other teachers and administrators

**Figure 4**  
*Example of a learner profile for teachers*

# Teaching, learning and assessment

This theory, that the aim of general education was not the acquisition of general knowledge, but the development of the general powers of the mind to operate in a variety of ways of thinking, had a profound effect on the planning of curricula and methods of assessment.

Peterson (2003: 41)

## Introduction

Three forces shaped the initial development of the Diploma Programme. These were:

- **pragmatic**—the need to provide a school leaving diploma that would facilitate university entrance and be recognized in different countries
- **idealistic**—the desirability of promoting international perspectives that would encourage international understanding and peace
- **pedagogical**—the promotion of critical and creative thinking skills and learning how to learn.

Note: See Peterson (2003), Fox (1998) and Hill (2002) for historical perspectives on the development of the Diploma Programme.

These forces complement each other and continue to inspire the development of the Diploma Programme. The world has become increasingly interdependent since the programme's initial development in the 1960s. The size of the knowledge base continues to grow and the ability to process and evaluate knowledge, not just to acquire it, is more important than ever. Universities and employers are increasingly seeking to attract globally aware, adaptable learners who are able to apply and transfer their skills and knowledge to new contexts.

The approach to teaching and learning adopted in a school is a critical factor in determining the success of the Diploma Programme. This section considers appropriate pedagogical practices and should be read together with the section on "Teaching and learning" in *Towards a continuum of international education*.

## Planning a Diploma Programme course

Diploma Programme subject guides, teacher support materials and other supporting documents published by the IB are designed to help teachers plan and prepare their own course of instruction; they are not intended to prescribe a course. The concept of creative teacher professionalism, introduced in "Philosophy and principles of the Diploma Programme", is critical in understanding the pivotal role played by teachers in designing their own course of study and teaching it in an effective way.

While some published textbooks will be useful, and a number of course companions have been written specifically for the IB programmes, it is undesirable and ineffective to teach any IB course to a textbook or a course companion. Textbooks contain general guidance, whereas teachers are the best-placed professionals to know their own students and understand the context in which they are teaching. Instruction also needs to be differentiated, engaging with and challenging each learner's current level of understanding.

IB subject guides, although dealing with very diverse disciplines and subject areas, have some common features. The “Nature of the subject” section provides a general description of the subject and its place in a particular subject group. Guidance is given on distinctions between HL and SL, expectations (if any) of prior learning, links to the Middle Years Programme and links to the TOK course. The “Aims” section identifies the overarching aspirations and intentions of the course, some or all of which are common to the subject group.

The section on “Assessment objectives”, together with the “Syllabus outline” and “Syllabus details”, provides further essential information for teachers in planning a course. Objectives describe what students will be expected to do at the end of the course and what will, therefore, be assessed. While the nature of different academic disciplines means that the explanation and development of syllabus content and assessment objectives vary to some extent in different subject groups, the following practices are applied.

- Common command terms have been defined and are being incorporated in new guides as subjects undergo curriculum review. This applies to all guides published from 2007 onwards. Command terms are key terms and phrases used in the syllabus content and in examination questions to indicate what is required in response to a particular command. This also suggests the type and depth of response that is expected. Developing an in-depth appreciation of this, in the context of a particular subject, is essential for teaching the course and achieving the desired learning outcomes. Command terms broadly follow established taxonomies such as Bloom’s taxonomy of educational objectives (Bloom 1956).
- Teachers should familiarize themselves with specimen papers and markschemes, which provide examples of different types of response and reproduce examiners’ comments on student work.
- The relative mark awarded for a question is a general indicator of the level of detail that a student is expected to provide when answering a question.
- Syllabus outlines within subject guides frequently indicate the relative weighting attached to different components of the syllabus by suggesting teaching hours. These add up to the recommended total hours of 150 hours at SL and 240 hours at HL.
- A number of subject guides, including those for groups 4 and 5, use teachers’ notes or “amplifications/inclusions/exclusions” columns to clarify the depth of treatment for specified content.

Diploma Programme courses are deliberately designed to be synoptic rather than modular. This means that, in most instances, student understanding is examined at the end of the course, looking at the whole course and not just aspects of it. Students have to be able to recall, adapt and apply knowledge and skills to novel questions and contexts. The implications of this for course design and teaching are significant and include the following.

- Skill development and application need to be integrated into course design together with syllabus content coverage.
- Skill development needs to be constantly reinforced in a learning spiral. Once a skill is learned or developed, it should be reinforced by its application in different contexts.
- The amount of syllabus content to be covered is substantial. It is, therefore, particularly important to develop and reinforce excellent study skills and habits early in the course. Effective course planning avoids overloading students with coursework and results in effective teaching and learning from the first day of instruction.

Teacher collaboration is essential where more than one teacher is involved in teaching a course, as schemes of work must be developed collaboratively. Final internal assessments are collected by subject, not by teacher, and are sent for moderation as school samples, not class samples. Teachers can improve practice by sharing ideas with their colleagues and observing classes. Teacher collaboration should be seen as an important aspect of professional development.

## Approaches to teaching a Diploma Programme course

Good teaching practice is not specific to the IB or to any programme of study. However, the IB philosophy and principles have implications that teachers need to be aware of in their teaching practice and that might be different from other teaching contexts they have experienced.

There are a wide range of teaching strategies and approaches that should be used in the classroom. Individual teachers and students have their preferred learning and teaching styles and some styles are more prevalent in different cultures and national settings. What is essential is that each student is actively engaged in classroom activities and that there is a high degree of interaction between students and the teacher, and also between the students themselves.

Learning should focus on meaningful questions and contexts and the voice of the learner is considered to be as important as the voice of the teacher. The teacher is viewed as a supporter of student learning, rather than a transmitter of knowledge, making use of questions and tasks that help the student work in their “zone of proximal development”. This term, originally used by Vygotsky (1962 and 1978), represents the range of achievement that lies between what the student can manage on their own and what they can manage with the support of the teacher. The emphasis is on engaging and challenging the learner’s existing mental models in order to develop a greater depth of understanding and to improve performance.

Whole-class instruction that encourages open discussion, in which the teacher challenges student thinking and demonstrates a range of appropriate responses, can be extremely effective. In comparison, a teacher who lectures, and involves students as passive recipients rather than active participants in the classroom, is likely to be less effective. Overemphasis on lecturing is incompatible with the aims and principles of the Diploma Programme. Teachers should use a variety of different approaches at different times, employing a mixture of whole-class, group and individual activities that are representative of the learner profile.

The learner profile stresses the importance of inquiry. Students are expected to develop their natural curiosity, together with the strategies and skills needed to become autonomous lifelong learners. Students are also expected to think for themselves so that they can approach complex problems and apply their knowledge and skills critically and creatively to arrive at reasoned conclusions or answers. Diploma Programme courses specify a large amount of content, with the area of study often defined in considerable detail. It is the way in which content is presented in class that is critical. The aims and objectives of each course emphasize the importance of students investigating answers for themselves. IB assessments are designed to reward evidence of independent student thinking leading to considered individual responses, so it is important that students practise these skills at every opportunity. Different subjects also provide a number of opportunities for students to design their own inquiry, with the extended essay as the ultimate structured inquiry exercise.

Learning how to become an effective learner requires students to realistically evaluate and regulate their own learning and performance. “Metacognition” is a term used to refer to reflective thinking strategies, attitudes and other competencies used to monitor and control learning. Metacognitive strategies and skills can be nurtured in a supportive learning environment that focuses on the affective as well as cognitive competencies identified in the learner profile. In order to become independent learners, students need to develop powers of reflection, self-confidence and self-awareness, a willingness to communicate ideas without fear of losing face, and a willingness to take risks and be open-minded.

Students learn best when (reproduced from *Towards a continuum of international education*):

- their prior knowledge is considered to be important
- learning is in context
- context is relevant
- they can learn collaboratively

- the learning environment is provocative
- they get appropriate feedback to support their learning
- diverse learning styles are understood and accommodated
- they feel secure and their ideas are valued and respected
- values and expectations are explicit
- there is a culture of curiosity at the school
- they understand how judgments about learning are made, and how to provide evidence of their learning
- they become aware of and understand how they learn
- metacognition, structured inquiry and critical thinking are central to teaching in the school
- learning is engaging, challenging, rigorous, relevant and significant
- they are encouraged in everything they do in school to become autonomous lifelong learners.

## Supporting language learning

All teachers are language teachers. Each subject has a specific vocabulary and requires language both as a tool for understanding the subject and for communicating ideas. Students have to learn to be precise in their use of language. Assessments in all subjects require students to express themselves in written form. Additionally, groups 1, 2 and 6 all have oral assessment practices. Schools need to have a language policy that identifies the principles and practices teachers are expected to adopt (see *Guidelines for developing a school language policy*).

Teachers need to provide additional support for students who are working in a language of instruction that is not their best language. For guidance on this see the IB publication *Learning in a language other than mother tongue in IB programmes*.

## Developing interdisciplinary perspectives

Time pressure will require that teachers focus on covering the syllabus and teaching to the aims and objectives of their course. Some aims, objectives and syllabus content encourage reference to, and even collaboration with, other subjects. There are natural overlaps between different disciplines that can be productively explored and used to reinforce discipline-specific knowledge, understanding and skills. Mathematical concepts are used in a number of subjects, various forms of written critical response are related to each other, and the content and skills taught in one subject group may overlap with other disciplines. Developing these links can help build bridges in students' minds and support the development of metacognitive understanding and performance.

The TOK course, which requires students to reflect on the nature of human knowledge across all disciplines, provides an excellent platform for building interdisciplinary understanding. As students compare and contrast different ways of knowing and the different methodologies used in areas of knowledge, they are forced to reflect on what it means to be human. In order to encourage this, links with TOK are identified in individual subject guides. Teachers are encouraged to explore their own links with the TOK course and are expected to support the development of this learning experience in the teaching of their own course.

## Assessment

Diploma Programme teachers need to understand how formal assessment is conducted. Formal assessment is defined as assessment directly contributing to the final diploma qualification. Most formal assessment is external, and includes examinations or work completed during the course and then sent to an external examiner. Some formal assessment is internal, requiring the teacher to mark the work before it is moderated by an external moderator. The principles, practices and challenges involved in formal diploma assessment are considered in detail in *Diploma Programme assessment: Principles and practice*.

It is important to stress that the single most important aim of Diploma Programme assessment is that it should support curricular goals and encourage appropriate student learning. Diploma Programme assessments measure students' achievement levels against published criteria that are derived from the course aims and objectives. Students need to understand what the assessment expectations, standards and practices are and these should all be introduced early in the course and be the focus of class and homework activities. The formal assessment requirements make it clear how summative assessment will be conducted, and how the student will be judged at the end of the course.

Teachers have responsibility to design and provide formative assessment structures and practices that help students improve their understanding of what constitutes excellence and where their own work stands in relation to this. Formative assessment is also important for the teacher, as it should provide detailed feedback on the nature of the students' strengths and limitations. The emphasis here, a key component of learning how to learn, is on making the student a better judge of their own performance and then helping them develop strategies to improve. Formative assessment focuses on assessment as an essential learning process. Schools use a number of practices and instruments to support this, including:

- student self-evaluation supported by the teacher
- systematic use of detailed assessment descriptors (rubrics, matrices)
- peer evaluation mediated by the teacher (either face to face or using an ICT resource such as a blog).

Assessment instruments primarily designed for formal assessment at the end of the course should also be adapted and used formatively as part of the learning process.

## Schools as professional learning communities

The principle of creative teacher professionalism, described in “Philosophy and principles of the Diploma Programme”, emphasizes the importance of teachers being critically self-reflective practitioners who model the approaches to learning they expect of their students in their own approaches to teaching. Professional learning plays an important role in promoting and supporting this practice. The goal of professional learning is “improved student learning through enhanced teacher practice” (Calnin 2006: 3).

In the context of the IB, professional learning can be viewed as an on-going commitment by teachers, supported by the school, to develop the learner profile attributes in their own practice (see figure 4 in “Developing the IB learner profile”). Professional learning involves a process of critical self-reflection in which teachers develop a deeper understanding of what it means to be an effective internationally minded teacher who is able to support students in demonstrating the intended learning outcomes prescribed by the curriculum. Professional development is an essential part of this process.

IB World Schools are encouraged to view themselves as professional learning communities. They should demonstrate the following characteristics.

- A shared vision of the school values and mission, which is consistent with the IB’s mission statement and values
- Continuous and ongoing commitment to improvement
- A culture of collaboration that is embedded into working practices—trust and risk-taking are encouraged, teachers openly share their professional practice
- Emphasis on the school culture, not just on organizational structures
- A focus on, and commitment to, learning rather than teaching
- Supportive, shared and devolved leadership that includes teachers as well as school leaders—all adults in the school, as well as students, should demonstrate and model a commitment to lifelong learning and to the IB learner profile; the school, not just individuals within the school, needs to be a learning organization, continually reflecting and evaluating current practice with a view to improving

Building an effective and supportive learning community, with a commitment to continuous improvement, is vital for the successful implementation and development of the Diploma Programme in schools.

## Professional development opportunities offered by the IB

The IB is committed to supporting schools and teachers in the process of professional learning by providing a range of professional development opportunities. Schools need to work on creating the reflective collaborative culture that is essential for professional learning to occur. They should not assume that teachers will improve merely through attending workshops and other professional development events or opportunities provided by the IB. These opportunities include the following.

1. The IB offers a programme of workshops and conferences designed to help teachers and administrators in IB World Schools better understand and deliver the Diploma Programme. IB-endorsed workshops are organized around the world and are targeted to meet the needs of teachers who have different levels of experience (visit <http://www.ibo.org/diploma/pd> for an updated list of conferences and workshops). Online teacher-training opportunities are increasingly available, allowing teachers to register for online workshops (visit <http://www.ibo.org/events> and the OCC for further information).
2. The OCC is a website that aims to develop and nurture an international online professional learning community and to foster a culture of collaborative learning. It includes forums for discussion, links and postings of helpful resources, a wiki environment designed to facilitate collaborative knowledge construction by the learning community, and blogs to support teachers as reflective practitioners. The OCC is the place where all IB fee-covered publications are published.
3. Many IB regional associations offer professional development opportunities. These are often particularly valuable as they can address Diploma Programme implementation and development issues within a local context.
4. The IB teacher award scheme is offered at an increasing number of universities worldwide (visit <http://www.ibo.org/programmes/pd/award>). It is offered at two levels. Level 1 aims to formally recognize teachers' knowledge and understanding of curricular, pedagogical and assessment issues involved in implementing and teaching IB programmes. Level 2 acknowledges the commitment of teachers who have further developed their understanding of the principles and practices of IB programmes by completing a higher level of academic study. It includes systematic and rigorous inquiry into international education with reference to one or more IB programme.

## Professional development expectations

The IB expects that teachers new to the Diploma Programme undergo initial professional development that introduces them to the course(s) and core components they will be teaching. Professional development should be ongoing for all teachers in a school, irrespective of their experience. Professional development is needed to keep experienced teachers up to date with course developments.

At a minimum, schools should take advantage of workshops or online professional development opportunities when a new curriculum has been developed following the curriculum review cycle. Since IB curriculum development systematically considers teacher responses to surveys, it is of paramount importance that subject teachers respond to survey requests so that the sample truly represents the population. (In this way, all teachers have at least a limited voice in programme development.)

Professional development should not only be for subject specialists, but also for staff involved in all aspects of implementing IB programmes, including librarians, administrators, counsellors, special educational needs teachers, Diploma Programme coordinators and CAS coordinators. All teachers have a responsibility to support students who are studying in a language that is not their best language and they may require additional professional development to provide this language support.

IB professional development workshops are also provided for experienced teachers where excellent practice is demonstrated and discussed to support professional learning. However, the IB encourages teachers to take advantage of professional development opportunities beyond IB workshops and online courses. Teachers may choose to use the teacher award scheme as one avenue, or they may explore alternatives that help them develop their professional skills and understanding. Professional development should be linked to teacher evaluation, resulting in an individual as well as a collective professional development plan, so that the targets and opportunities that emerge are directly relevant to the needs and experience of the individual teacher as well as the priorities of the school.

The OCC is a resource that is included in the school fee. It is easily accessible to teachers, contains a wide range of resources and information, and provides an opportunity for teachers to see how other teachers around the world approach common IB issues. It covers the teaching of all subjects and should be regularly used.

Using professional development opportunities provided by the IB or other organizations is only one aspect of supporting a professional learning community. Creating the right learning environment is even more important. The principle of creative teacher professionalism, outlined in “Philosophy and principles of the Diploma Programme”, and the programme standards and practices define expectations that are supportive of IB World Schools as professional learning communities. All IB teachers need to understand and support the vision and principles of the organization and to model the learner profile in their own behaviour and teaching.

Experienced IB teachers are encouraged to take advantage of a wide range of professional IB opportunities, including becoming IB examiners, moderators, deputy chief examiners, OCC forum moderators, workshop leaders, authorization team members and/or members of IB curriculum development committees. Active involvement in worldwide Diploma Programme support and assessment provides a uniquely valuable form of professional development and is a service to the school as well as the wider IB community.

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