A BASIS FOR PRACTICE

THE DIPLOMA PROGRAMME

IBO

CONTENTS

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THE ORIGINS AND DEVELOPMENT OF THE DIPLOMA PROGRAMME

THE ORIGINS OF THE Diploma Programme are recounted in the book *Schools Across Frontiers* by Alec Peterson (1987), the first director general of the International Baccalaureate Organization (IBO), who was appointed in 1969. The vision and determination of many before him, including Desmond Cole-Baker, headmaster of the English language section of the International School of Geneva in the 1960s, John Goormaghtigh, chair of the board of the International School of Geneva 1960–1966 and founding president of the IBO Council of Foundation 1968–1981, groups of teachers from Geneva and from Atlantic College in Wales, inspired by Kurt Hahn and Alec Peterson, and from the International Schools Association (ISA), led to the first international curriculum and examinations for the final two years of secondary schooling, known as the Diploma Programme (Hill, 2002).

Established in the late 1960s, with its first full year of operation in 1970, the Diploma Programme was originally designed to cater for the educational needs of globally mobile students in international schools. It was developed as a deliberate compromise between the specialization required in some national systems and the breadth preferred in others, without bias towards any particular national system. The general objectives of the IBO were to provide students with a balanced education, to facilitate geographic and cultural mobility, and to promote international understanding through a shared academic experience.

From its inception, the development of the Diploma Programme was based on three fundamental principles:

- the need for a broad general education, establishing the basic knowledge and critical thinking skills necessary for further study
- the importance of developing international understanding and citizenship for a more peaceful, productive future
- the need for flexibility of choice among the subjects to be studied, within a balanced framework, so that the students' options could correspond as far as possible to their particular interests and capacities.

Attempting to encapsulate the aims of the programme in a single sentence, Peterson suggested that they were "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" (1987). He emphasized the importance of the concept of general education as *process* rather than *content*. Peterson further stated 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". This principle continues to have a profound effect on the planning of curriculum and methods of assessment for the Diploma Programme.

Since its introduction, one of the great advantages of the Diploma Programme has been the willingness of IB teachers to experiment with their ideas and practices. Innovative and committed teachers and examiners from many different cultures and systems of education have played a significant role in the development of the programme, and today their participation is as pivotal as ever. Continuing to find new ways to support teachers in classrooms around the world, and examiners from many different countries, is of the highest priority. ■

A WORLD-RECOGNIZED QUALIFICATION

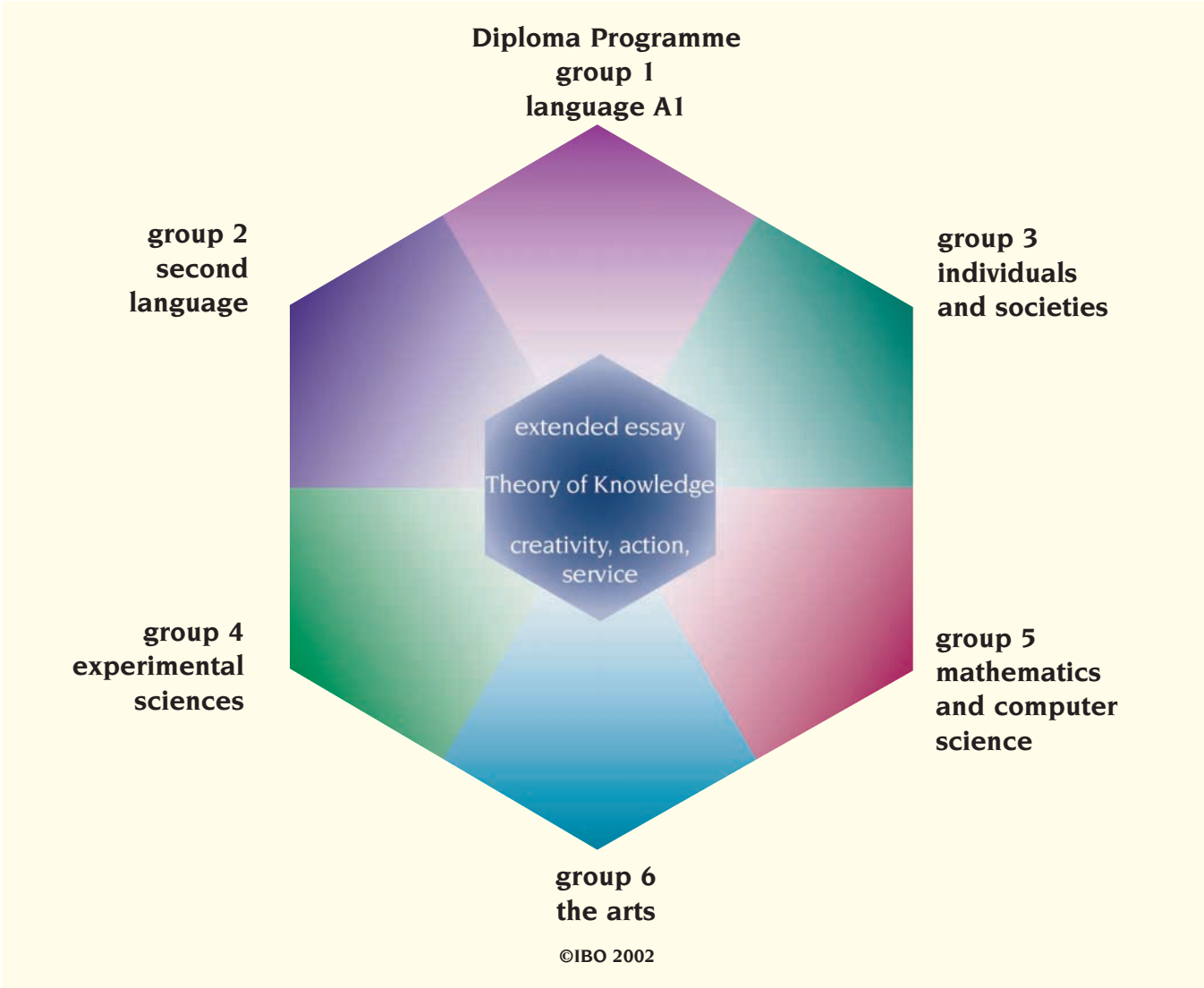
IN THE YEARS SINCE ITS FOUNDING, the Diploma Programme has become a leading, internationally recognized pre-university qualification. Now it is a symbol of academic excellence worldwide. The student who satisfies its demands demonstrates a strong commitment to learning, both in terms of the mastery of subject content and in the development of wide-ranging skills. He or she is also encouraged to appreciate the universal value of human diversity and its legitimate boundaries, while at the same time understanding the common humanity that we all share.

While each component of the Diploma Programme has specific aims and assessment objectives, the distinctive aims of the programme as a whole are to:

- provide an internationally accepted qualification for entry into higher education
- promote international understanding
- educate the whole person, emphasizing intellectual, personal, emotional and social growth
- develop inquiry and thinking skills, and the capacity to reflect upon and to evaluate actions critically. ■

THE DIPLOMA PROGRAMME CURRICULUM MODEL TODAY

PETERSON'S VISION of the breadth, depth and flexibility of the curriculum is known today as the Diploma Programme hexagon model, with six academic areas surrounding a core. Students study six subjects selected from six subject groups, concurrently over two years, as well as the core elements of the programme (Theory of Knowledge, the extended essay, and creativity, action, service). The six subject groups represent the major domains of learning across all subject disciplines of a curriculum.



At least three, and not more than four of the six subjects selected are taken at higher level (HL), the others at standard level (SL). HL courses represent 240 teaching hours, and require a greater depth of study across a broader range of content in the subject. SL courses require 150 hours and provide breadth of study across the whole Diploma Programme. Within this model, students are able to explore some subjects in depth and some more broadly over the two-year period. Most subjects are available at both HL and SL and can be taught and examined in English, French or Spanish.

The core of the model consists of the Theory of Knowledge (TOK) course, the extended essay, and creativity, action, service (CAS). The interdisciplinary TOK course is designed to provide coherence by exploring the nature of knowledge across all disciplines, encouraging an appreciation of other cultural perspectives. The extended essay, with a prescribed limit of 4,000 words, offers the opportunity to investigate a topic of individual interest, and acquaints students with the independent research and writing skills expected at tertiary level. Participation in the school's CAS programme encourages students to be involved in artistic pursuits, sports and community service work, thus fostering their awareness and appreciation of life outside the academic arena.

Subject choices

- **Group 1 Language A1:** first language, including the study of selections of world literature. Forty-five languages are regularly available; others are available on request.
- **Group 2 Language A2, B, *ab initio*:** second modern language courses for various levels of proficiency; classical languages.
- **Group 3 Individuals and societies:** history, geography, economics, philosophy, psychology, social and cultural anthropology, business and management, information technology in a global society (SL only), Islamic history.
- **Group 4 Experimental sciences:** biology, chemistry, physics, environmental systems (SL only), design technology.
- **Group 5 Mathematics and computer science:** mathematics (HL only), mathematical methods (SL only), mathematical studies (SL only), further mathematics (SL only), computer science (elective).
- **Group 6 The arts:** visual arts, music, theatre arts.

Note: most subjects are available at both HL and SL, unless otherwise stated.

THE PIVOTAL ROLE OF THE HEXAGON CORE

Theory of Knowledge

The Theory of Knowledge (TOK) requirement is central to the educational philosophy of the Diploma Programme. It offers students and their teachers the opportunity to reflect critically on diverse ways of knowing and on areas of knowledge, and to consider the role and nature of knowledge in their own culture, in the cultures of others and in the wider world. It prompts students' awareness of themselves as thinkers, encouraging them to become more acquainted with the complexity of knowledge and to recognize the need to act responsibly in an increasingly interconnected but uncertain world.

As a thoughtful and purposeful inquiry into different ways of knowing, and into different kinds of knowledge, TOK is composed almost entirely of questions. The most central of these questions is "How do we know?" The critical reflection encouraged in students is a foundation for developing international awareness. All subjects around the hexagon aim to encourage in all students an appreciation and understanding of cultures and attitudes other than their own, but in this particular respect, TOK has a special role to play.

It is a stated aim of TOK that students should become aware of the interpretative nature of knowledge, including personal and ideological biases, regardless of whether, ultimately, these biases are retained, revised or rejected.

Students are required to demonstrate an awareness of the values and the limitations of their individual outlooks, and of the views common to the communities and cultures to which they belong.

In coming to understand the strengths and limitations of their own and others' cultural perspectives, students are better able to evaluate their own views and their own level of intercultural understanding.

TOK also has an important role to play in providing coherence for a student's Diploma Programme. Exploration of the nature of knowledge in TOK transcends and links academic subject areas, demonstrating for students the ways in which they can apply their own knowledge with greater awareness and credibility.

The extended essay

A required component, the extended essay is an independent, self-directed piece of research, culminating in a 4,000-word paper. It is given much importance by students, teachers and universities, because it provides practical preparation for the kinds of undergraduate research required at tertiary level. From the choice of a suitable research question, to the final completion of the extended essay, students must produce their piece within the constraints of time, essay length and available resources. This component provides an opportunity to engage in an in-depth study of a topic of interest within a chosen subject.

Emphasis is placed on the research process, on the appropriate formulation of a research question, on personal engagement in the exploration of the topic, and on communication of ideas and development of argument. It develops the capacity to analyse, synthesize and evaluate knowledge, with a personal choice of topic from within any subject area. Students are supported and encouraged throughout the research and writing with advice and guidance from a supervisor.

Creativity, action, service

Creativity, action, service (CAS) is a framework for experiential learning and reflection about that learning. This process of application and reflection provides an opportunity to extend what is learned in the classroom and, in turn, for the CAS experience to have an impact on classroom learning.

CAS is intended to provide experiences for students to develop self-confidence and empathy, and a willingness to help others. They may directly confront or indirectly engage in work on global problems, or work directly with other people at a local level, developing their capacity to function collaboratively and effectively with others.

The IBO's aim of educating the whole person comes alive in a practical, demonstrable way through CAS, when students are involved in the community, whether at a local, national, or international level.

The three elements of CAS are mutually reinforcing. Together, they enable students to recognize that there are many opportunities to learn about life, self and others, and to inspire confidence, determination and commitment. Creative and physical activities are particularly important for adolescents and they offer many favourable situations for involvement and enjoyment at a time that is for many young people stressful and uncertain. The service element of CAS is perhaps the most significant of the three, in terms of the development of respect for others, and of responsibility and empathy.

BREADTH AND DEPTH OF STUDY IN SUBJECT GROUPS 1–6

Group 1: language A1

Developing an understanding of the nature and value of one's own culture is a fundamental starting point for any educational programme claiming to be international. In this regard, the study of languages has a special role to play. To enable students to deepen their understanding of the literature of their mother tongue culture, 45 different languages in group 1 are regularly available for selection. However, provided that there is sufficient written literature in a language and that the request is received well in advance of the examination, language A1 examinations are provided in any language, no matter how rarely or widely spoken it may be. Therefore, beyond the 45 languages regularly available, the IBO can offer a wide range, from Albanian, Asante and Bemba, to Xhosa, Yoruba and Zulu.

The distinguishing aims of all languages in group 1 are those that:

- encourage a personal appreciation of literature and develop an understanding of the techniques involved in literary criticism
- develop the students' powers of expression, both in oral and written communication, and provide the opportunity for practising and developing the skills involved in writing and speaking in a variety of styles and situations
- broaden the students' perspective through the study of works from other cultures and languages.

Group 2: second language

The underlying principle of requiring the study of a second language is to promote cultural understanding through language and, in this case, an understanding of other cultures through the study of other languages. This group consists of a broad spectrum of modern languages and two classical languages (Latin and classical Greek). The main emphasis of the modern language courses is on language acquisition and usage, from the comparatively elementary, practical usage at *ab initio* level, to the sophisticated usage of the near-native (or bilingual) speaker studying a language A2. In between are the language B courses, a broad spectrum designed to provide access to all students, regardless of linguistic ability.

Language *ab initio*

The language *ab initio* courses are language learning courses for beginners, designed to be followed over two years by students who have no previous experience of learning that language. The main focus of the courses is on the acquisition of language required for purposes and situations usual in everyday social interaction. Language *ab initio* courses are available only at standard level.

Language B

Mostly available at both higher level and standard level, the language B courses occupy the middle ground of the group 2 modern languages continuum. They are intended for students who have had some previous experience of learning the language. The main focus of these courses is on language acquisition and the development of skills considerably beyond those expected of an *ab initio* candidate, to a fairly sophisticated degree at higher level.

Language A2

The language A2 courses are designed for students with an already high level of competence in the target language. Language A2 courses are based firmly on the study of both language and literature. The main focus of these courses is on the reinforcement and refinement of language skills, as distinct from basic language acquisition. The language A2 courses are available at both higher level and standard level.

Classical languages

The classical languages courses introduce students to the languages, literatures and cultures of ancient Greece and Rome. These ancient civilizations have played a crucial part in shaping many modern societies and cultures. The languages themselves are versatile and finely structured, and their influence on the development of most modern European languages has been highly significant. They provide important insights into the cultures that produced them, and offer a bridge between the contemporary world and the often alien, but always fascinating, civilizations of antiquity.

The distinguishing aims of all subjects in group 2 are those that:

- encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people from other cultures
- develop students' awareness of the relationship between the languages and cultures with which they are familiar.

Group 3: individuals and societies

The nine subjects offered in this group (history, geography, economics, philosophy, psychology, social and cultural anthropology, business and management, information technology in a global society, and Islamic history), all provide for the development of a critical appreciation of human experience and behaviour, the varieties of physical, economic and social environments that people inhabit, and the history of social and cultural institutions. The subjects are designed to foster in students the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments relating to the nature and activities of individuals and societies. Students come to an appreciation of the way in which learning is relevant to both the culture in which a student lives and the culture of other societies. The students are encouraged to recognize that human attitudes and opinions are widely diverse and to understand that a study of society requires appreciation of such diversity.

The distinguishing aims of all subjects in group 3 are those that:

- encourage the systematic and critical study of human experience and behaviour, physical, economic and social environments, and the history and development of social and cultural institutions
- promote the appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies
- develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity.

Group 4: experimental sciences

The five experimental sciences offered in this group (biology, chemistry, physics, environmental systems, and design technology), provide opportunities for scientific exploration and creativity within global contexts.

Each subject contains a body of knowledge, methods and techniques which students are required to learn and apply. In their application of scientific method, students develop an ability to analyse, evaluate and synthesize scientific information. A compulsory group 4 project encourages students to appreciate the environmental, social and ethical implications of science. The exercise is a collaborative experience where the emphasis is on the *processes* involved in scientific investigation rather than the products of such investigation. Furthermore, the collaboration is inter-disciplinary: within the sciences' groups students analyse a topic or problem which can be investigated in each of the science disciplines offered by the school, and they practise their experimental and investigative skills. By this means, an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method is encouraged, and an opportunity to explore scientific solutions to global questions is provided.

The distinguishing aims of all subjects in group 4 are those that:

- provide opportunities for scientific study and creativity within global contexts that will stimulate and challenge students
- enable students to apply and use a body of knowledge including methods and techniques that characterize science and technology
- engender an awareness of the need for, and the value of, effective collaboration and communication during scientific activities
- raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- develop an appreciation of possibilities and limitations associated with science and scientists.

Group 5: mathematics and computer science

Because mathematics enters people's daily lives in so many ways, it is a compulsory area of study for every Diploma Programme student. But because each student has different needs, interests and abilities, and will use mathematics to serve different purposes, a variety of courses is offered.

The mathematics subjects aim to enable students to develop mathematical knowledge, concepts and principles, to develop logical, critical and creative thinking, and to employ and refine their powers of abstraction and generalization. Students are encouraged to appreciate the international dimensions of mathematics and the multiplicity of its cultural and historical perspectives; they are also encouraged to engage in mathematical pursuits, and to develop an appreciation of the beauty, power and practicality of the discipline.

Four of the five subjects in this group (mathematics HL, mathematical methods SL, mathematical studies SL and further mathematics SL), are designed to cater for a range of mathematical ability, and to provide the mathematical support for the students' other subjects (such as economics, business and management, and the experimental sciences) and their university and career aspirations.

The fifth subject offered in the group is computer science, but this must be studied in addition to a mathematics subject if selected. This subject aims to develop an understanding of the range and organization of computer systems, including software, data and hardware, and of the use of computers in a variety of disciplines, applications and contexts.

The distinguishing aims of all subjects in group 5 are those that enable students to:

- appreciate the international dimensions of mathematics and the multiplicity of its cultural and historical perspectives
- employ and refine the powers of abstraction and generalization
- gain an enhanced awareness of, and utilize the potential of, technological developments in a variety of mathematical contexts.

Group 6: the arts

The subjects in group 6 (visual arts, music and theatre arts), are interpretative in approach and allow for significant choice of content. This feature, which is appreciated by teachers, allows a high degree of adaptability to different cultural contexts, and to the strengths and interests of teachers and their students. The emphasis in all the subjects is on creativity: the making of art, the making of music and the making of theatre in the context of disciplined, practical research into the relevant genres.

Historically, arts assessments in the Diploma Programme emphasized imaginative and creative thinking and expression, in both subject matter and technique. More recently, it was recognized that this was a western-orientated bias. In many non-western cultures, 16- to 19-year-olds are taught to imitate the ideas and to practise the skills of the masters. The western-orientated assessment criteria rewarded the students who took risks, experimented, and were adventurous; students from many non-western cultures were discouraged from risk-taking and experimenting until they had perfected their skills. Importantly, the syllabuses and assessments of the current arts subjects have removed much of this bias, and now reflect an eclectic attempt to combine contrasting aesthetics and forms of assessment from around the world.

A new pilot course in film has now also been introduced to group 6, made possible because the technology required for the making of film images has become less complex and expensive, and more readily accessible to schools. Developments in digital image recording and transmission promise to make film images even more available through everyday computer technology in the very near future.

Another new pilot subject, dance, is intended to reflect the belief that dance is a vital and integral part of human life: it exists in many forms and styles, and is practised in all cultures, taking place in a range of contexts and for various purposes. Dance is a universal medium of individual, social and cultural expression, whether manifested as ritual, artistic endeavour, or as social discourse.

The aims of the subjects in group 6 are specific to the subjects offered in the group. Two examples follow, to demonstrate the distinctiveness of the group.

The distinguishing aims of visual arts are to:

- promote visual and contextual knowledge of art from various cultures
- encourage the pursuit of quality through experimentation and purposeful creative work in various expressive media.

The distinguishing aims of music are to:

- give students the opportunity to explore and enjoy the diversity of music throughout the world
- assist students to develop their potential as musicians both personally and collaboratively, in whatever capacity, to the full.

School-based syllabuses

A school-based syllabus (SBS) is an optional sixth subject, offered at SL only, designed by the school according to its own needs and teaching resources. These syllabuses, devised by schools in consultation with IBO staff, provide an important contribution to curriculum development within the IBO, and are a means of encouraging active school participation in that process.

School-based syllabuses offer schools an opportunity to formulate a part of their Diploma Programme to suit their local needs, subject to the approval of the IBO. In return, SBSs offer the IBO an opportunity for developing new curriculum ideas. Some valuable innovations have arisen as a result, notably theatre arts and information technology in a global society.

There are currently 20 school-based syllabuses being taught in schools around the world, including:

- human rights
- peace and conflict studies
- Turkish social studies
- world politics and international relations
- world religions
- Chile and the Pacific Basin.

Transdisciplinary SL subjects

To provide a new opportunity to foster transdisciplinary learning, and to provide greater access to all six subject groups of the hexagon, three new subjects were introduced as pilots in 2001.

These subjects, which enable students to satisfy the requirements of two groups at the same time in one subject, are:

- text and performance (group 1 and group 6)
- ecosystems and societies (group 3 and group 4)
- world cultures (group 3 and group 6).

Students in approved pilot schools can study one of these new SL subjects as one of their chosen six subjects.

THE NATURE OF INTERNATIONAL EDUCATION

THE EARLY FOCUS OF DEVELOPMENT of the Diploma Programme was on academic recognition of the qualification by universities worldwide. For some, however, the issue of how the international characteristics of the curriculum were to be developed was just as pressing. Ensuring coverage of issues of global concern, irrespective of a student's choice of subjects, and developing a profile of the world citizen, were questions given new emphasis in the 1990s.

The step taken by the IBO to introduce the Middle Years Programme (in 1994) and the Primary Years Programme (in 1997) meant that the IBO now offered three international programmes of education: the concept of a consistent, broad-based international curriculum had come into being. This important development prompted a renewed exploration and review of the concept of an international curriculum. An educational framework that offers, across each programme, a common specification of aims and values, within an overarching concept of international-mindedness, was needed (International Baccalaureate Organization, 2001; 2002b; 2002c). The impact of offering three programmes has given renewed impetus to the further development of the international dimensions and characteristics of the Diploma Programme and its students.

The new sequence of programmes offered fresh insights into the nature of international education and the criteria on which a template for a continuum from ages 3 to 19 might be built. The list below represents the set of provisional criteria that have been identified to date (Drennen, 2002). Taken together, they form a proposed template for the purposes of planning, and for evaluating the effectiveness of, strands of continuity across the three age ranges. Beyond this template, a language of international education is emerging (Walker, 2002). Flexibility in responding to local requirements and interests is at the heart of curriculum design, so that the resultant outcomes, in curriculum terms, can provide appropriate access for all students to what is common and what is different in human experience.

The criteria for an international template include the need to:

- develop citizens of the world – culture, language and learning to live together
- build and reinforce students' sense of identity and cultural awareness
- foster students' recognition and development of universal human values
- stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- equip students with the skills to learn and to acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- provide international content while responding to local requirements and interests
- encourage diversity and flexibility in pedagogical approaches
- provide appropriate forms of assessment and international benchmarking.

This template has an impact on curriculum planning for all programmes. For the Diploma Programme, the cycle of curriculum and assessment review is focused on identifying and providing new ideas to strengthen the diploma as an international qualification. The development of "world citizenship" requires a recognition and an appreciation of the worth of human life wherever it is lived, and of the shared bond with all other human beings. Such a pluralist view is based on the tenet that human diversity is intrinsically valuable and that because there is a plurality of human identities, interaction among them brings the possibility of greater mutual understanding. Developing in students an ability to appreciate and to evaluate human diversity and its legitimate boundaries can strengthen their motivation to modify their behaviour accordingly (Orellana, 1995).

Learning and the environment for learning

While much is yet to be understood about the full range of learning in which the Diploma Programme engages students, it is clear that developing flexibility and adaptability in students as learners is a crucial feature. The encouragement and empowerment given to the student for his or her learning is also fundamental, as is the recognition that both individuals and groups are learners. Learning through individual subjects and through transdisciplinary study, integrating different approaches to learning, using information technology in learning, and recognizing intercultural and intergenerational learning, are common to all three IB programmes. While relatively little is understood about the effect of the total environment on student learning in the specific context of international education, the environment for learning is also recognized as particularly important and is an area of much research activity within the IBO (Thompson, 1999).

Teaching and the environment for teaching

The IBO has always acknowledged the central role of teachers in developing the full range of qualities associated with academic excellence and personal, social and physical growth. However, in the context of international education, not a great deal is known about the effectiveness of different teaching styles and methods and, again, this will be a central focus for the IBO's research agenda. Areas of particular interest include teachers as learners, teachers as managers of learning, teachers as innovators, the teacher–student relationship in learning, and the training and recruitment of teachers for international education (Thompson, 1999). A school's ethos has far-reaching effects in the context of international education, and is nowhere more clearly evident than in the classroom practices of its teachers. In some schools resources are extremely generous, while in others they are limited. Research in this area is especially necessary, and as urgent as that into the influence of resources on learning. New technologies for learning, the role of family, the role of community in international education, and the school as a learning organization for international education are all crucial concerns for the future. ■

ASSESSMENT AND THE AWARD OF THE QUALIFICATION

SSESSMENT OF STUDENT PERFORMANCE within the Diploma Programme takes a wide variety of forms: the overall assessment structure for each subject ensures that student performance is measured in relation to all the objectives for that subject. Typical subject objectives include some that refer to knowledge and understanding of subject content, and also many that refer to particular types of skill relevant to the subject.

For example, an ability to engage in independent literary criticism in language A1, to analyse, evaluate and integrate source material, to construct scientific hypotheses and evaluate scientific methods, to make inductive generalizations in mathematics and to produce works of art with imagination and creativity, all relate to the objectives for particular subjects. It is clear that a wide variety of approaches to assessment is needed to provide students with suitable contexts in which to demonstrate their capabilities. An important feature is that all assessment is conducted in English, French or Spanish.

In nearly all Diploma Programme subjects, at least some of the assessment is carried out within the school by teachers, who mark individual pieces of work produced as part of the course of study. Such assessments by teachers are checked through the sampling of work from every school. If necessary, the teachers' marking is adjusted by moderators, who ensure that a common standard is applied to all schools.

The kind of work that is internally assessed includes oral exercises in the language subjects, projects, student portfolios, class presentations and practical laboratory work in the sciences, mathematical investigations and artistic performances. The principal aim of conducting internal assessment is to evaluate student achievement against those objectives that do not lend themselves to external written examinations or tests. Internal assessment also gives teachers, who know their students' work very well, a significant input into the overall assessment process.

Some assessment tasks are conducted and overseen by teachers, but are then marked by examiners outside the school. These tasks are carried out by students at a time mutually convenient to them and to the school's schedule, and without the restrictions of external examination conditions. They generally involve the production of a substantial piece of writing that has been researched and developed over a period of time. Such assessment tasks include world literature assignments for language A1, written assignments for language A2, essays for Theory of Knowledge, and extended essays. The role of the teacher in assessing these pieces of work is less significant than it is for internally assessed tasks: all such pieces of work are sent to external examiners to maximize objectivity in marking.

In visual arts, visiting examiners are invited to view the studio exhibition of each student's artwork in the school and to interview the students individually.

However, external examinations still form the greatest component of the overall assessment structure for each subject, because of the greater degree of objectivity and reliability provided by the standard examination environment and external marking. The use of identical examination papers across the world for each subject ensures a strong element of parity of assessment for the Diploma Programme, reinforcing its coherence.

Examinations are taken by diploma candidates at the end of the two-year course of study, although it is possible to register for one or two SL subjects as "anticipated" examinations at the end of the first year of study. All examination papers are taken by candidates under the normal strict conditions prescribed by the IBO, with a fixed time limit, in the absence of any external resource or communication with other candidates, and with no prior knowledge of the questions. The nature of the examination questions varies considerably from paper to paper and from subject to subject. Objective tests comprising a set of multiple choice questions are used in some subjects, but short answer questions, structured questions, extended response questions, essay questions, data analysis questions, text analysis questions and case study questions are all used where appropriate. This variety of question types allows for a greater number of subject objectives to be assessed, and also reduces bias towards those students from a particular culture who might have greater experience in responding to one particular type of test (for example, tests composed entirely of essay questions, or of multiple choice questions).

Examination sessions are held in May and November each year, with results published in early July and early January respectively. Between the sitting of examinations and the release of results, all the external marking is completed, culminating in grade award meetings for each subject, to determine the final subject grades.

During the marking, each examiner submits a sample of work to a senior examiner who checks it for accuracy and consistency. Where examiners are found to be overgenerous or harsh in their marking, adjustments are made to their marks. Where examiners are found to be inconsistent or unacceptably inaccurate, their total allocation is re-marked by senior examiners.

At grade award meetings, the senior examining team for each subject reviews the effectiveness of each examination paper and the overall student performance on each paper. Assessment in the Diploma Programme is criterion related, which means that each student's final subject result is determined by the level of their performance as measured against a published set of criteria. These criteria describe the level of achievement expected for the award of each grade. Final subject results are not determined by norm-referencing, nor by awarding fixed percentages of each grade to the overall distribution of candidates.

Each subject is graded on a scale from one point (the lowest) to seven points (the highest). Each diploma student takes six subjects, most taking three at higher level and three at standard level across at least groups 1 to 5 of the diploma hexagon. In addition, there is a maximum of three points available for combined performance in the extended essay and Theory of Knowledge. Thus, the maximum possible score is 45 points. The minimum score needed to gain the diploma is 24 points, provided that certain conditions are met. These conditions, which relate to the distribution of points across the different subjects, are published in the Diploma Programme regulations (International Baccalaureate Organization, 2002a). ■

FUTURE DEVELOPMENTS

THE DIPLOMA PROGRAMME will undoubtedly continue to build on the achievements that have marked the organization's rapid progress since the late 1960s. The potential of technology to enable distance and online teaching and assessment will have an enormous impact, and already the development of IBO web-based services for teachers through the online curriculum centre, and for examiners through Examnet, is having far-reaching effects. The strengthening of the international nature and conceptual development of the subjects offered will also continue to advance the Diploma Programme as the leading learner-oriented pre-university international qualification.

The many new initiatives underway, which include new subjects in group 6 (film and dance) and standard level (SL) transdisciplinary subjects, text and performance SL (group 1 and group 6), ecosystems and societies SL (group 3 and group 4), and world cultures SL (group 3 and group 6), will be the precursors to others. Further initiatives, including the European Platform partnership, where group 2 English A2 and English B HL courses are provided to European Platform schools, a German pilot project, where a nationally funded project is enabling the Diploma Programme to be provided to students in German schools abroad, in a language other than English, French or Spanish, and the first pilot project of distance teaching of the Diploma Programme in Finland, are also demonstrations of future wider developments. ■

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