Perceptions of the International Baccalaureate Diploma Programme A report of an inquiry carried out at UK universities and institutions of higher education

Acknowledgments

Thanks must go to the consulted academics and admissions staff for their time and expertise, which they so readily shared with me. Thanks must also go to Jill Johnson, head of outreach department, Universities and Colleges Admission Services (UCAS) for her advice and some statistics.

Throughout my work and travels, first Portia Rees and then Helen Reed at the IBO managed the logistics and the complex processing of information from so many sources with calm and tolerance, and Jeff Thompson has been ever ready with support and guidance. To each I am deeply grateful.

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Colin Jenkins

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Foreword

Universities in the United Kingdom continue to set an academic standard for the rest of the world and they attract applications from IB students studying in many different countries. For these two reasons their attitude to the IB Diploma Programme, both as a course and as a qualification, is very significant.

Can it be coincidence that this inquiry should be undertaken at precisely the moment when confidence in the UK's national qualification, A-level, is at an all-time low? Indeed it is a coincidence because the IBO has no ambition to see its diploma become the national qualification of the United Kingdom or indeed of any other country. It does however want to see it welcomed as an attractive and distinctive alternative, competing on equal terms, and for that reason, too, the views of universities are critical.

No one has had more experience of the IB in action than Colin Jenkins. As headmaster of United World College of the Atlantic, UK, which abandoned A-levels in the 1970s, he helped his students to secure places at universities around the world and was one of those enthusiasts who "spent countless hours in negotiations with university authorities countrywide promoting the new qualification". I am grateful to him and to the IBO's academic director, Professor Jeff Thompson, for the time and energy they have devoted to this study.

Finally, I want to thank those in all the different university departments for answering yet another set of questions with such an encouraging response rate. We believe that the future of the IB is of great importance and to receive such powerful confirmation from the country's universities gives us great encouragement.

George Walker Director general International Baccalaureate Organization Geneva



Executive Summary

Aims of the Project

The aims of the project were to:

- evaluate the IB Diploma Programme as a suitable preparation for degree studies in the UK
- establish the IB Diploma Programme's strengths and weaknesses and the level of enthusiasm shown for it throughout the higher education sector
- make some comparisons between the IB Diploma Programme and predominant national qualifications.

Methodology

A questionnaire was designed to elicit statistical information and commentaries from respondents. With the cooperation of Universities UK and SCOP (Standing Conference of Principals), this questionnaire was distributed to all institutions of higher education in the UK, and specifically to their pro-vice-chancellors. This ensured that the responses were representative of the institutions approached, and 122 replies from 71 institutions were received.

Of the 71 institutions surveyed, 20 were selected for followup interviews, and 34 respondents were involved in these interviews.

The information received from the questionnaires and interviews was analysed under the following headings:

- The depth and rigour of the IB Diploma Programme
- The breadth of the IB Diploma Programme
- The core elements of the IB Diploma Programme
- The "whole package"
- Skills and assessment.

Depth and Rigour

Comments on the level of preparation of IB Diploma Programme students for degree studies were received from representatives of a wide range of disciplines. Comments were overwhelmingly favourable with 96% of respondents satisfied with the preparation of Diploma Programme students. The A-level system was seen to have greater depth by some respondents, but this was less the case with Curriculum 2000. For most respondents the differences between A-levels and the Diploma Programme were not significant.

Breadth

The majority of respondents (96%) favoured a broad curriculum and were particularly enthusiastic about this aspect of the Diploma Programme. A small number were concerned about dilution, but most appreciated the confidence, wide knowledge and skills that the breadth of the Diploma Programme seemed to endow. The numerical rating given by respondents placed the Diploma Programme ahead of national qualifications for this aspect.

Core Elements

Attitudes to the IB Diploma Programme's core elements—theory of knowledge (TOK), extended essay and creativity, action, service (CAS)—were investigated.

A majority of respondents (91%) approved of TOK. Comments received included its suitability in preparing students for the tutorial style of university education, and the flexibility and adaptability of the thought processes it seemed to assist.

There was greater enthusiasm for the extended essay with a 96% rating in its favour. It was seen to assist both research skills and the preparation of dissertations.

CAS was also seen as an asset, but not in academic terms where it plays little part in the consideration of lecturers and

tutors. Its 70% approval rating relates mainly to its value in helping to produce rounded personalities. There was some specific enthusiasm from the medical professions who see the service element as good preparation for medical studies.

The "Whole Package"

There was enthusiasm for the IB Diploma Programme hexagon and core model although many were unclear as to what was compulsory in the programme. Some respondents (57%) felt that the Diploma Programme conferred an advantage to its students, and 40% were of the view that it neither conferred advantage nor disadvantage.

Skills and Assessment

Consideration of higher skills needed for advanced studies was investigated by comparing three versions of the national GCE A-level system with the Diploma Programme for four skill areas (critical thinking, communication, self-management and motivation).

For each area there was a significant majority of the 78 respondents to this question who rated IB Diploma Programme students as more accomplished than those following the A-level systems.

Questions Raised

Responses to this study raised many issues that are reviewed and considered in this report. These issues include the following questions.

- Does the Diploma Programme suit arts students better than science students?
- Are Diploma Programme assessment issues and skills achievement always well presented by the IBO?
- Are Diploma Programme syllabuses seen as stable?
- Are Diploma Programme examination results noted for their stability and absence of grade inflation?
- Is the Diploma Programme too challenging for the lessable student?
- Are Diploma Programme students self-selecting and from better schools?

Conclusion

The project was set up to investigate reactions to the IB Diploma Programme curriculum. The statistics and narrative responses indicate considerable enthusiasm for this form of education and much confidence in the students who pursue it.

Résumé en français

Objectifs du projet

Ce projet avait pour objectifs:

- d'évaluer le Programme du diplôme du BI en tant que préparation à des études supérieures en Grande-Bretagne;
- d'identifier les points forts et les points faibles du Programme du diplôme du BI et le niveau d'enthousiasme qu'il génère dans l'ensemble du secteur de l'éducation supérieure britannique;
- d'établir des comparaisons entre le Programme du diplôme du BI et les principales qualifications nationales.

Méthodologie

Un questionnaire a été conçu afin de recueillir des données statistiques et des commentaires de la part des participants. Avec la coopération des organisations *Universities UK* et *SCOP*, ce questionnaire fut distribué à toutes les institutions d'enseignement supérieur au Royaume-Uni, et particulièrement à leurs pro-vice-recteurs. Ceci a permis de garantir la représentativité des réponses obtenues auprès des institutions ainsi consultées. Au total, 122 réponses provenant de 71 institutions différentes ont été reçues.

Sur les 71 institutions ayant participé à cette enquête, 20 ont été sélectionnées pour des entretiens subséquents et 34 personnes ont participé à ces entretiens.

Les informations recueillies dans les questionnaires et à la suite des entretiens ont été analysées sous les catégories suivantes :

- la profondeur des études et la rigueur académique du Programme du diplôme du BI;
- l'ampleur du Programme du diplôme du BI ;
- les éléments centraux du Programme du diplôme du BI ;
- le Programme du diplôme du BI dans son ensemble ;
- les compétences et l'évaluation.

Profondeur et rigueur

Des commentaires sur le niveau de préparation à des études supérieures des élèves ayant suivi le Programme du diplôme du BI ont été obtenus auprès de personnes représentant un large éventail de disciplines. Ces commentaires étaient majoritairement favorables : 96 % des personnes interrogées étaient satisfaites du niveau de préparation des élèves du Programme du diplôme. Certaines personnes interrogées estimaient que le système des « GCE A-levels » (principal système d'enseignement de deuxième cycle secondaire britannique) offrait des études plus approfondies, mais cette opinion était moindre dans le cas du « Curriculum 2000 » (réforme des GCE A-levels). Pour la plupart des personnes interrogées, les différences entre les « GCE A-levels » et le Programme du diplôme étaient insignifiantes.

Ampleur

La majorité des personnes interrogées étaient en faveur d'un programme d'études étendu et étaient particulièrement enthousiasmées par cet aspect du Programme du diplôme. Certes, le manque de spécialisation inquiétait un petit nombre des personnes interrogées, mais la majorité d'entre elles appréciaient la confiance, les connaissances étendues et les compétences que l'ampleur du programme d'études semblait conférer aux élèves. Les cotes numériques attribuées par les personnes interrogées plaçaient le Programme du diplôme en tête des qualifications britanniques pour cet aspect.

Éléments centraux

Cette enquête s'est également penchée sur l'attitude des participants vis-à-vis des éléments centraux du Programme du diplôme, à savoir : la théorie de la connaissance (TdC), le mémoire et le programme de créativité, action et service (CAS).

La majorité des personnes interrogées (91 %) étaient en faveur de l'enseignement de la TdC. Les commentaires reçus soulignaient notamment son efficacité dans la préparation des élèves à l'enseignement dirigé (séance de tutorat) du

niveau universitaire, ainsi que la souplesse et la capacité d'adaptation du raisonnement que ce cours semblait encourager.

Le mémoire faisait l'objet d'un enthousiasme encore plus marqué, avec 96 % des personnes interrogées en sa faveur. Le mémoire était perçu comme une aide au développement des techniques de recherche et une préparation au mémoire universitaire.

Le programme CAS était également considéré comme un atout, mais pas d'un point de vue académique où il jouait un rôle très restreint dans les considérations des chargés de cours et des directeurs d'études. Son taux d'approbation de 70 % provient principalement de sa valeur dans l'épanouissement des jeunes et le développement de personnes équilibrées. Ce programme suscitait un enthousiasme spécifique dans le secteur médical qui considère l'élément de service comme une bonne préparation à des études de médecine.

Le Programme du diplôme du BI dans son ensemble

Le modèle hexagonal du Programme du diplôme du BI et son noyau suscitaient de l'enthousiasme, bien que de nombreux participants à l'enquête n'étaient pas sûrs de savoir quels étaient les éléments obligatoires programme. Plus de la moitié des participants (57 %) étaient d'avis que le Programme du diplôme offrait un avantage aux élèves qui le suivaient, alors que 40 % pensaient qu'il ne constituait ni un avantage ni un handicap.

Compétences et évaluation

L'enquête a considéré les compétences de haut niveau nécessaires à des études supérieures. Pour cela, elle a comparé trois versions du système national des « GCE Alevels » avec le Programme du diplôme, sur le plan de quatre domaines de compétences (réflexion critique, communication, autogestion et motivation).

Dans chacun de ces domaines, une importante majorité des participants (78 %) considéraient que les élèves du Programme du diplôme du BI étaient plus accomplis que les élèves suivant le système des « GCE A-levels ».

Ouestions soulevées

La participation à cette enquête a soulevé de nombreuses questions qui sont passées en revue et étudiées dans ce rapport. Parmi les questions ainsi soulevées, on notera :

- Le Programme du diplôme convient-il mieux aux élèves en filière littéraire qu'aux élèves en filière scientifique ?
- Les questions d'évaluation et les niveaux de compétence atteints au sein du Programme du diplôme sont-ils toujours bien présentés par l'IBO?
- Les programmes d'études du Programme du diplôme sont-ils perçus comme stables?
- Les résultats aux examens du Programme du diplôme sont-ils reconnus pour leur stabilité et l'absence d'inflation des notes?
- Le Programme du diplôme est-il trop difficile pour les élèves moins doués ?
- Les élèves du Programme du diplôme choisissent-ils ce programme eux-mêmes et proviennent-ils des meilleurs établissements scolaires ?

Conclusion

Ce projet avait pour but de mener une enquête sur les réactions au Programme du diplôme du BI. Les données statistiques et les réponses narratives indiquent un enthousiasme considérable pour cette forme d'éducation et une grande confiance en les élèves qui le suivent.

Resumen en español

Objetivos del proyecto

Se plantearon los siguientes objetivos para el proyecto:

- evaluar la idoneidad del Programa del Diploma del BI como preparación adecuada para realizar estudios universitarios en el Reino Unido
- determinar los puntos fuertes y los puntos débiles del Programa del Diploma del BI y el nivel de entusiasmo que despierta en el sector de la enseñanza superior
- comparar el Programa del Diploma del BI con los principales títulos académicos británicos.

Metodología

Se elaboró un cuestionario con el objetivo de obtener información cuantitativa y cualitativa por parte de los encuestados. Con la colaboración de las organizaciones británicas Universities UK y SCOP, se distribuyó el cuestionario en todas las instituciones de educación superior del Reino Unido, y específicamente a los vicerrectores a fin de garantizar que las respuestas fueran representativas de las instituciones consultadas. Se recibieron 122 respuestas de 71 establecimientos.

De las 71 instituciones que respondieron a la encuesta, se seleccionaron 20 para realizar entrevistas de seguimiento. En estas entrevistas participaron 34 encuestados.

La información obtenida a partir de los cuestionarios y las entrevistas se analizó bajo los siguientes títulos:

- Profundidad y rigor académico del Programa del Diploma del BI
- Amplitud del Programa del Diploma del BI
- Elementos centrales del Programa del Diploma del BI
- El "modelo completo"
- Comparación de habilidades en los distintos sistemas

Profundidad y rigor académico

Se recibieron comentarios de representantes de una amplia gama de disciplinas acerca del nivel de preparación de los estudiantes del Programa del Diploma del BI para realizar estudios universitarios. Estas observaciones fueron abrumadoramente favorables: el 96 por ciento de los encuestados se mostró satisfecho con el nivel de preparación de los estudiantes del Programa del Diploma. Algunos encuestados consideraron que el sistema de exámenes GCE A-level [principal sistema de enseñanza secundaria superior en Gran Bretaña] tiene una mayor profundidad, pero menos opinaron lo mismo de "Curriculum 2000" [sistema reformado de A-level]. La mayoría de los encuestados opinó que las diferencias entre el sistema GCE A-level y el Programa del Diploma no son significativas.

Amplitud

La mayoría de los encuestados (96 por ciento) se mostró favorable a un plan de estudios amplio y valoraron especialmente este aspecto del Programa del Diploma. Si bien unos pocos expresaron su preocupación ante la pérdida de especialización que ello puede implicar, la mayoría reconoció la seguridad, los vastos conocimientos y las competencias que dicha amplitud otorga al programa. Al pedir a los encuestados que ordenaran una serie de títulos académicos británicos en relación con este aspecto, el Programa del Diploma resultó ubicado por encima de todos los demás.

Elementos centrales

Se estudiaron las opiniones de los encuestados con respecto a los elementos centrales del Programa del Diploma del BI: Teoría del Conocimiento (TdC), la Monografía y Creatividad, Acción y Servicio (CAS).

Una gran mayoría (91 por ciento) se mostró de acuerdo con la inclusión de TdC en el programa. Entre los aspectos que se valoraron se pueden mencionar la preparación que da a los estudiantes en la modalidad de estudio característica de la educación universitaria británica (grupos reducidos a cargo de un profesor), y la flexibilidad y la capacidad de adaptación de los procesos de pensamiento a las que parece contribuir

La monografía suscitó aun más entusiasmo: un 96 por ciento se expresó a su favor. Se consideró que contribuye a desarrollar tanto las habilidades de investigación como la capacidad de elaborar trabajos escritos.

También CAS se consideró un elemento positivo, aunque no en términos académicos, donde no influye demasiado en la consideración de profesores universitarios. El 70 por ciento de aprobación que obtuvo por parte de los encuestados se relaciona principalmente con su valor en la formación integral de la personalidad de los alumnos. Se advirtió un cierto entusiasmo específicamente por parte de los encuestados provenientes del sector de los profesionales médicos, quienes consideraron que el aspecto de servicio constituye una buena preparación para la carrera de medicina.

El modelo completo

El modelo hexagonal del programa con sus elementos centrales suscitó gran aprobación, pese a que muchas respuestas reflejaron cierta falta de claridad acerca de los elementos obligatorios del programa. El 57 por ciento de los encuestados consideró que el Programa del Diploma confiere una ventaja a los estudiantes, mientras que el 40 por ciento opinó que no confiere ni una ventaja ni una desventaja.

Habilidades v evaluación

Se estudiaron las opiniones acerca de las habilidades avanzadas necesarias para realizar estudios superiores mediante una comparación entre tres versiones del sistema nacional de exámenes GCE A-level con el Programa del Diploma. Esta comparación se basó en cuatro áreas de competencia (pensamiento crítico, comunicación, autonomía y motivación).

Una significativa mayoría de los 78 encuestados que contestaron a esta pregunta consideró que, en cada área, los estudiantes del Programa del Diploma del BI tienen una mejor preparación académica que aquellos que siguen el sistema A-level.

Cuestiones planteadas

Las respuestas a este estudio plantearon numerosas cuestiones que se exponen y examinan en este informe. Entre estos temas se incluyen las preguntas siguientes:

- El Programa del Diploma, ¿es más apropiado para los estudiantes de humanidades que para los de ciencias?
- ¿IBO comunica siempre correctamente los temas relativos a la evaluación y a la adquisición de habilidades en el Programa del Diploma?
- ¿Se juzgan estables los programas de estudios del Programa del Diploma?
- ¿Se destacan los exámenes del Programa del Diploma por unos resultados estables y por la ausencia de "inflación de notas"?
- ¿Resulta el Programa del Diploma demasiado difícil para estudiantes con menos capacidades?
- Los estudiantes que cursan el Programa del Diploma, ¿lo han elegido por su propia voluntad? ¿Provienen de los mejores colegios británicos?

Conclusión

Este trabajo se concibió a fin de estudiar la opinión sobre el currículo del Programa del Diploma del BI. Las respuestas cuantitativas y cualitativas recibidas dan prueba de un considerable entusiasmo por este modelo educativo y de una confianza en los alumnos que cursan estos estudios.

Introduction

Students have been admitted to UK universities and institutions of higher education on the basis of their International Baccalaureate diplomas since 1970. Prior to this, IB enthusiasts spent countless hours in negotiations with university authorities countrywide promoting the new qualification. The responses to these negotiations were supportive and UK universities agreed to accept the IB Diploma Programme (DP) as a matriculating qualification. Over the years, the DP has steadily taken hold. The success of individual students has affirmed the quality of the programme, and the anecdotal evidence coming out of the universities and higher education institutions over the years attests to this success.

The outward expression of the DP's acceptance can be seen in university prospectuses where admission requirements in IB terms have become more and more common. Much work was done by many schools to negotiate sensible levels of offers of acceptance despite the inevitable difficulties of trying to create equivalences with the predominant national system (GCE A-levels). Time and experience by higher education and schools have seen these difficulties diminish over the years and the DP to be judged according to its own parameters rather than in comparison with something else.

This report is not meant to review admission requirements, and neither is it in pursuit of "outcomes". However, the anecdotal evidence that the IBO and schools have gathered about the performance of students needed investigation. If DP students do well in higher education is this due to the way in which they have been prepared? Are there any problems with the depth and rigour of the DP? Do all the elements of the DP curriculum contribute in a positive way to students' undergraduate experiences? Do the students show any special skills in critical thinking, motivation and self-management? Do DP students exhibit any special qualities?

This project is an attempt to establish the quality and suitability of the DP in preparing students for higher education. It is also, in part, an attempt to establish whether the programme has achieved the target of providing a satisfactory equivalence in the quality of learning between its higher level subjects and A-level subjects, thereby satisfying both admissions staff and academics in higher education in the UK. The strengths and weaknesses of the programme need evaluation and inevitably the DP should be compared with other qualifications. In the UK the post-16 curriculum was restructured in 2000 and is known as "Curriculum 2000". This restructuring was a step towards broadening the traditional curriculum, and this report contains views and opinions on it. The British government has ordered a study of the baccalaureate "style" of education while more generally reviewing 14-19 education in the country. The results of this Diploma Programme inquiry may be instructive both in showing what is possible in 16-19 education and what is desirable. As such it may contribute to the debates and studies set in train by the government.

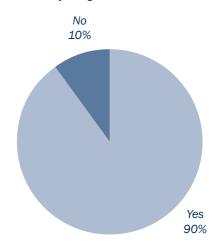


Figure 1 Responses to question 1: Do you have experience of students with IB qualifications?

This study was instigated by Professor George Walker, director general of the IBO, in collaboration with Professor Jeff Thompson, academic director for the IBO. Information has been gathered from the questionnaires in statistical and narrative form, and from the face-to-face interviews conducted at 20 sample universities.

The decision was taken to design a questionnaire for distribution to all universities and institutions of higher education in the UK. The questionnaire (appendix 1) was pre-tested by Dr MP Lewis at the University of Wales, Swansea, and his comments helped to shape the final version. The questionnaire was designed in two parts: the first statistical and the second allowing respondents to expand on their answers to the first part.

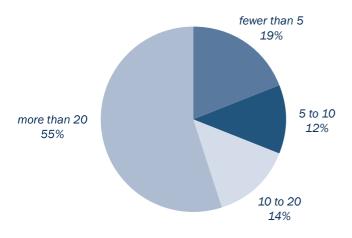


Figure 2 Responses to question 2: How many [IB] students have you dealt with either administratively or as a teacher/ tutor in the last five years?

The questionnaires were distributed on behalf of the IBO (five to each institution) by Universities UK (previously known as the Committee of Vice-chancellors) and SCOP (Standing Conference of Principals) with the advice and assistance of Amalia Holman, policy adviser at Universities UK, and Patricia Ambrose, executive secretary of SCOP. Their assistance and advice to send the questionnaires to the pro-vice-chancellors at each address was instrumental in prompting such a good return (122 responses from 71 universities and institutions of higher education).

On completion of the review of returned questionnaires, 20 universities/institutions were selected for follow-up interviews (see appendices 2, 3, 4 and 5). For this phase of the work 34 academics and admission staff were consulted. Individual reports are included as appendix 5 and appear with the authority of those interviewed.

The Depth and Rigour of the IB **Diploma Programme**

Depth and rigour in the International Baccalaureate Diploma Programme (DP) is achieved by the requirement that at least three of the six subjects included are studied at higher level (see appendix 6). This feature of the programme provides a clear comparison with the UK A-level system, which requires specialization usually by the study of three subjects only. Diploma Programme higher level subjects are seen to provide the student with the intellectual satisfaction of indepth study.

This study gathered information about the depth and rigour of higher level subjects, and the quality of individual subjects.

Preparation and Acceptance

Most students applying for academic courses in higher education in the UK do so on the basis of their attainments in GCE A-level or Curriculum 2000. The broader demands of the DP have led some to conclude that DP higher level subjects cannot have the same quality as A-levels. Question 6 in the survey addressed this assumption. Of the 117 respondents from a wide range of institutions, faculties and departments (see appendix 3), 97% were confident that DP students were adequately prepared for their degree courses. Some expressed doubts about the science areas, but the high number of responses from the pure and applied sciences, including medicine, indicates that there is no specific problem with the DP preparation for science disciplines.

Most universities admit DP students on the condition that they attain certain grades in appropriate higher level subjects, sometimes in the context of a Diploma Programme points

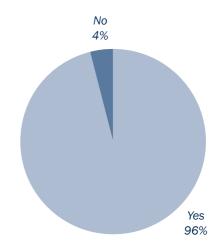


Figure 3 Responses to question 6: Are you satisfied that the IB curriculum prepares students adequately for undertaking undergraduate degree courses?

total. The weight of opinion from admissions staff in this investigation was that the DP could be relied upon and used with confidence for admission purposes.

A comment from Aston University sums up most of the views gathered in this survey: "there is no need to make allowances for IB students". At Heriot-Watt University the DP is considered to be "rigorous and challenging", and at The University of Kent, "[DP] higher levels have parity with A-levels despite the fact that the students are concentrating on more subjects". An interesting opinion expressed by many was that DP courses and examinations had not suffered grade inflation (see Table 1).

	2002		2001		2000		1999		1998	
	May	Nov								
IB Diploma Programme Pass Rate	82.4%	76.3%	81.8%	75.7%	82.4%	76.0%	83.8%	72.8%	82.3%	73.3%

Table 1

University of Sussex commented that DP students figured among first and upper-second class degrees disproportionately, and University of Oxford felt that the intellectual qualities developed in the IB programme were more than adequate.

Reservations

There were also well-considered reservations by some respondents. A comment from Imperial College of Science, Technology and Medicine was that DP higher level chemistry students needed some remedial work to bring them up to A-level standard, but that their knowledge base was fine for degree courses that combined chemistry with some other subjects. Respondents at The Universities of Kent and Brighton speculated about mathematics and physics but respondents from Kent stressed that "IB students tended to do better". There were some questions at The University of Manchester about languages and mathematics, but the physics department at Manchester "would lean over backwards to admit more IB students".

Subjects

Questions 3 and 4 in the survey focused on subject distribution and whether DP students had a predilection towards one faculty or another. Of the respondents who were able to answer these questions, 74% felt that there was no such predilection. Many respondents did not feel able to

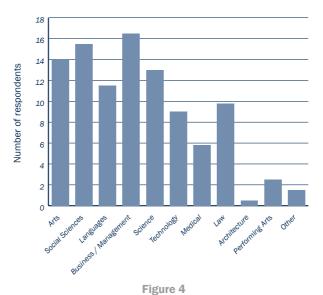
answer these questions however, which made analysis of the detailed subject figures difficult. A broad analysis resulted in the following figures for "the two cultures".

- 40% Culture 1: the arts, humanities, social sciences, languages
- Culture 2: the sciences, pure and applied, 30% technology, medical

(The remaining 4% can be divided between business, law, performing arts, media, design and architecture.)

Specific-subject information was gathered mainly in the interviews, and the following comments are typical of the responses.

Aston University (engineering) "knew what [they were] getting with IB students" and felt that IB higher level sciences were equivalent to A-level. The University of Birmingham (medicine), was "satisfied with the scientific preparation of IB students". Oueen's University of Belfast claimed that "The difference between IB students and others can be detected and this may be the result of the fact that they have already had experience of handling a diverse programme of study". London School of Economics and Political Science felt that there was a stark contrast between DP and A-level students with the former at an advantage, and that the compulsory inclusion of mathematics was a distinct advantage.



Response to question 3: Have you noticed any particular distribution of admitted students to specific faculty areas?

Imperial College of Science, Technology and Medicine was satisfied with DP mathematics and commented on the constancy of standards and curriculum over a period. The DP mathematics examinations were seen to be more testing of a student's mathematical training than A-level examinations. At Emmanuel College, University of Cambridge, it was felt that the depth provided by DP higher level subjects in the arts, humanities and biological sciences was completely adequate. There was, however, some disappointment that the DP languages had slipped a little from earlier days with perhaps less literature being studied, but the feeling was that the language courses were as good as those at A-level.

University of Liverpool also highlighted the constancy of standards of the DP as a particular strength. The University of Manchester noted the absence of DP students from failure and non-completion lists, and felt that they brought enthusiasm to their studies, had a good language background and were particularly well suited to combined studies in the arts. Cardiff University echoed the words about the low likelihood of non-completion of courses by DP students, and found that it was normal for them to be in the top half of qualifying students in the biological sciences and medicine. At University of Bath the mathematics department is satisfied with the preparation of DP students and felt that they bring good communication skills. Higher or standard level DP mathematics is much valued in the departments of economics, international development, and business and management.

At The University of Dundee higher level courses in the context of the whole DP qualify students for admission to the second year of the degree programme. Representatives stated that they would like more of this kind of student. Like Dundee, The University of Glasgow is enthusiastic about DP students noting the easy fit with the Scottish educational system. At Glasgow there are no subjects where the depth of preparation is inadequate.

Diploma Programme physics was mentioned at The University of Manchester; Imperial College of Science, Technology and Medicine; and University of Sussex as being adequate, even attractive (Manchester and Sussex). The law faculties at Universities of Leicester and Hull expressed satisfaction with DP students and Hull thought that the "IB is better than A-levels" and that IB students seemed to possess the advanced skills of analysis and problem solving. The University of Kent too had some preference for DP students, and the social science faculty expressed "entire satisfaction with their entrants".

Impression Versus Experience

Responses to this study indicate that the depth and rigour of DP higher level subjects fulfill preparation demands for degree-level studies at UK universities and institutions of higher education. There is, however, an anomaly in the questionnaire results. In question 10 the respondents rated the IB Diploma Programme (and Curriculum 2000) as not providing the same depth as straight A-levels. In the interview stage of the project this issue was taken up and was not upheld by 32 of the 34 people interviewed (see appendix 5).

It is difficult to interpret this contradiction but it may relate to the "impression" mentioned earlier (that DP higher level subjects cannot have the same quality as A-levels) versus actual "experience" with DP students. It is difficult, even in the face of the evidence, to overcome the view that the DP higher level subjects cannot be as deep and rigorous given the many other significant demands of the full Diploma Programme. However, most of the evidence in this report, which is based on the experience of the respondents, shows this view to be fallacious. The many quotes in this report are only a small selection of what could have been included, and are convincing in their approval of and satisfaction with the DP qualification and its students.

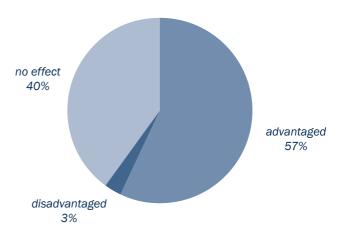


Figure 5: Response to question 9: Do you consider that the IB as a preparation for higher education as compared to A-level leads to its students being relatively disadvantaged/relatively advantaged/unaffected?

The Breadth of the IB Diploma **Programme**

The International Baccalaureate Diploma Programme (DP) is constructed so that students are required to study one subject from each of the subject groups 1 to 5. The sixth subject can be selected from group 6 or be an additional subject from groups 1 to 5 (see appendix 6). At least three and not more than four subjects must be taken at higher level, and the others at standard level. In this way, arts students must complete full standard courses in sciences and mathematics, and science students must pursue language and humanities courses. This mechanism ensures a broad education and is in contrast to the A-level system, which normally consists of the selection of three separate subjects, with no compulsory breadth requirement.

Respondents to the questionnaire indicated support for the concept of breadth, with 97.3% considering this to be desirable. Interviewees were less confident when pressed on the issue of compulsory disciplines, and reported a lack of experience on this issue. London School of Economics and Political Science and the University of Bath did identify the compulsory mathematics at higher or standard level as being useful in a wide range of their degree programmes.

The response to this issue was extensive and detailed, and provided the most enthusiastic and positive reaction identified in this study.

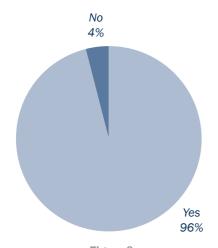


Figure 6 Response to question 5: Do you favour attempts to broaden the post-16 curriclum?

Skills Arising from Breadth

Responses identified many qualities related to the DP's broad curriculum. Many felt that DP students have a wider perspective and could think "out of the box". The DP was also seen as an appropriate preparation for working life. Many felt that it confers on the students a wide range of skills particularly useful in university studies, both in specialist courses and in the broader interdisciplinary programmes now so widely available. Some mentioned that the balance of the programme showed coherent thinking by its designers and that this went a long way to producing "interesting" students. Faculties such as law and medicine made frequent comments about the value of the varied knowledge base of the students.

The broad base was also seen to help students respond to new challenges and modes of delivery of courses in higher education by allowing for a wider choice by students. Royal Holloway, University of London, spoke for many when commenting that DP students had strengths when making choices and had good skills in critical analysis and expression. Speaking for itself, the college also felt "IB students to be markedly stronger than A-level students". The University of Stirling agreed by stating that DP students were better prepared in the core and key skills. Two respondents from France and Sweden, teaching at UK universities, wondered why breadth could ever be seen as a disadvantage.

Reservations

The critical voices on this style of education (and on the compulsory broadening requirements) felt that the DP approach might prove too difficult for the less-able student. Some faculties were interested in the specialist knowledge and skills of their students and on this definition other skills were of only marginal value. Others felt that concentrating more on breadth than depth might lead to superficiality or dilution. However, these concerns were rare.

Admissions

UK universities and institutions of higher education have already voted in favour of admitting DP students and the majority accept and many even seek DP students. Universities and Colleges Admissions Services (UCAS) have recently compiled their courses database for 2004 and have included about 50,000 courses that are available in UK universities and institutions of higher education. Of these, 47,000 have framed offers in DP terms. This is an extremely high percentage indicating wide recognition.

The Core Elements of the IB Diploma Programme

The International Baccalaureate Diploma Programme (DP) is presented as a hexagon (see appendix 6) with the six subject groups at its points and three further important and compulsory elements at its centre or core: theory of knowledge (TOK), extended essay, and creativity, action, service (CAS).

Theory of knowledge and the extended essay contribute to both the depth and breadth of the curriculum. Responses from the universities and institutions of higher education indicate considerable enthusiasm for both these elements.

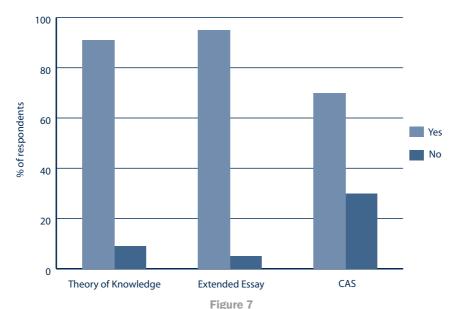
The CAS requirement of the programme does not contribute to a student's grade and is designed to put a structure on and give guidance to the extra-curricular element of the DP. It requires that students include creative activities (performance, artistic), action (sport, expeditions) and a community service of some kind over the two years of the programme. Failure to do so will result in the withholding of the diploma. A process of self-evaluation and school

evaluation, administered by the IBO, monitors the involvement of the students in CAS. Its inclusion is seen as part of the ideals and principles of the IB, and as contributing toward the education of the "whole person".

Question 8 of the survey inquires about the value of these three elements.

Theory of Knowledge

The questionnaire results show that 91% of the respondents were positive about TOK. Commentaries on the questionnaires emphasized that TOK gave students confidence and the ability to use seminars/tutorials/ discussions (all part of university studies), combined with experience of tackling debate and complex issues. Many expressed enthusiasm for its encouragement of critical thinking. Another strength mentioned was that students acquired transferable skills and flexible attitudes as well as good management and communication skills. There was



Responses to question 8: Do you find these elements of the IB programme to have any value in the students' progress through their studies?

some reference to the absence of such a compulsory programme at A-level and a welcome for the optional AS course in critical thinking now becoming available.

Reservations

A minority (9%) of respondents did not find TOK of value. Criticisms varied from "useless", "low-level waffle" and "not as important to us as higher levels". Some of these comments might stem from a lack of understanding, and could indicate that the IBO might alter the way it presents the TOK aims and objectives, to ensure greater clarity.

Extended Essay

The extended essay received stronger support with 96% of respondents finding it to be of value. It was perceived to improve the research skills of students and to fit well with the style of university education. It was seen to prepare students for research work and for reporting and writing findings in a coherent way. It was also seen to help to develop the relationship between theory and practice and to help in the preparation of dissertations.

Reservations

The negative voices (4%) felt that the essays may be prepared with too much "spoon-feeding" and tutorial help. Some felt that the work is often superficial. Others felt that it is also often not useful in selection as not all applicants prepare an essay in an appropriate subject, and the essay cannot then be used for comparative decisions between candidates.

Creativity, Action, Service

The survey results showed that CAS received a 70% approval rating with 30% not finding it useful. In the commentaries the weight of opinion, while supportive of CAS, did not find that it contributed much to the academic qualities of the student. Many respondents were not aware of its existence and certainly not of its compulsory place in the DP. However, many were aware of its value to the student in the admissions process where good CAS experiences helped students prepare interesting personal statements on the UCAS form.

Specific enthusiasm for CAS came from medical schools who found the service element to be an appropriate way for applicants to gain experience in the caring professions. There was also some comment that it helped students who took degrees where placement outside the university for a period of time was part of the course.

While respondents did accept that CAS is a "good thing", it is clear from the survey that there is little knowledge about it. However, one admissions tutor commented that UCAS personal statements were often very thin and sometimes invented, but that this was never the case with IB students who found the space on the form insufficient.

The "Whole Package"

The IB Diploma Programme (DP) is unique as an admissions qualification for UK universities and institutions of higher education for a number of reasons.

- It is a coherent programme with a range of disciplines, each of which must be included in a student's programme of study.
- Its courses are divided into higher and standard levels with the award of a diploma requiring a satisfactory performance in at least three courses at higher level and three at standard level.
- The six subjects are pursued over the two years of the course. Standard level subjects are discrete, stand-alone courses in their own right and not a subset of higher level subjects.
- It includes the further broadening and skill development of the student through TOK, the extended essay and CAS.
- The assessment strategies are many and varied and are designed to test the range of skills acquired by the students in the course of their studies.

Respondents to the questionnaire were asked (question 7) to comment on the value of these features and this report has already touched on many of the responses. Specifically to this question, most respondents commented on their attraction to the breadth of the programme, and The Universities of Essex. Exeter and Kent felt that the DP contributed to multiculturism.

A majority (97%) of respondents were satisfied that the DP prepares students well for degree studies, and 57% felt that it gives them an advantage over A-level students. Some (40%) felt that it conferred no advantage and 3% felt that DP students were disadvantaged.

Skills and Assessment

Students preparing for traditional A-levels necessarily restrict the breadth of skills they can attain because of the specialization of their programme. Curriculum 2000 was targeted at improving this situation by encouraging a structure that allowed for some breadth, and by the inclusion of a "key skills" option. Problems with this initiative have arisen owing to the absence of any form of compulsion.

The IBO's philosophy on acquiring skills is that a broad programme across a range of disciplines makes a wide range of skills implicit to the course of study. Skills are not an "add on" to make up for any deficiency in highly specialized programmes. This project needed therefore to evaluate the approach of the IB Diploma Programme and, inevitably, make comparison with the different approach in Curriculum 2000. The section on TOK and the extended essay has already highlighted some of the views on the skills they help to develop.

Different Entry Qualifications

Respondents were asked (in question 10) to rate four major entrance qualifications on a scale of 1-10. These marks were converted into a rank order for each of the qualifications and also raw totals were prepared to ensure the best possible data for comparison. Averages were also calculated for each of the categories being assessed for each of the qualifications.

The four qualifications were:

- GCE A-levels (2–4) subjects
- GCE A-levels + general studies
- Curriculum 2000 A-levels and AS
- International Baccalaureate Diploma Programme.

	Depth	Breadth	Critical Thinking	Communication Skills	Self- Management	Motivation
2 – 4 A-levels	7.94	5.13	5.89	5.57	5.75	6.53
A-levels together with general studies	7.46	6.19	5.94	5.93	5.81	6.33
Curriculum 2000 A/AS	6.85	6.56	5.82	5.85	6.15	6.43
The IB Diploma Programme	7.05	8.38	7.23	7.04	6.94	7.16

Figure 8

Response to question 10: Could you rate on a scale of 1–10 (best) the relative strengths and weaknesses of four admission qualifications which are commonly presented by applicants to undergraduate courses?

There were 78 completed replies. Many questionnaires (39) were returned without response to this question, and 35 of these were from admissions office personnel who did not have direct teaching experience with undergraduates. Completion was therefore by lecturers and tutors who had some direct knowledge of student performance.

All the marks were totalled for each qualification and an average mark was calculated, both as a grand total and for each of the six curriculum features under scrutiny. Respondents had a total of 60 marks available (10 for each of the six categories). The grand averages are as shown in Table 2.

Qualification	Grand Averages
2–4 A-levels	33.3
A-levels with general studies	32.5
Curriculum 2000	31.2
International Baccalaureate Diploma Programme	39.4

Table 2

Basic skills such as numeracy, written and oral skills and information technology are implicit in the curriculum and assessment format of the DP. This project was seeking additional information on some of the higher skills so important in higher education and respondents were asked to give ratings to:

- critical thinking
- communication skills
- self-management
- motivation.

The response supports the notion of "value-added" qualities encouraged by the DP. In each of the skill areas the DP rates above the other qualifications. Calculating the figures in a different way conveys this even more dramatically.

If each of the qualifications has their assessment placed in rank order then the results look like this.

Number of respondents completing 78 the question

Number rating IB first or equal first for:

critical thinking 64 communication 65 self-management 64 motivation 57 The commentary section of the questionnaire serves to expand this quantitative response and some of the comments (which are broadly representative) follow.

- "interest, preparedness and uptake of opportunities" (Coventry University)
- "IB students perform well and do not fail or drop out" (The University of Dundee)
- "IB students are more flexible, more open to new ideas and are more ready to question and challenge" (University of Essex)
- "IB students get necessary skills more rapidly" (University of Leicester)
- "IB students adjust easily to higher education" (The University of Manchester)
- "We like the (IB) self-directed learner. Curriculum 2000 is not producing this" (Middlesex University)
- "Critical thinking (IB) students are our best in this regard" (Royal Holloway, University of London)

Reservations

The responses also provided a number of criticisms of the DP. Of the 78 institutions responding to this section, 6 rated the DP below the other qualifications and points made in the commentary section included:

- "students [are] not mature enough intellectually to know what is going on" (The University of Newcastle)
- "wide variation in achievement of IB students" (Thames Valley University)
- "skills in IB students not particularly noticeable" (University of Wales College, Newport).

A recurring theme brought up by a small number of universities is exemplified by the following comment: "Is student achievement due to better background?"

Discussion

There is a clear enthusiasm for the breadth of the IB Diploma Programme (DP) and some considerable confidence that this breadth enhances rather than impedes the performance of students in their degree studies. The qualities of the DP, as recognized by the participants in this research, would appear to make it an interesting model for consideration in any debate on post-16 qualifications.

Depth and Rigour

The report shows that the depth and rigour of the DP is regarded as adequate and appropriate for preparing students for degree studies in the United Kingdom, and that the coherence of the programme is very attractive. The holistic impact of the whole programme, particularly in developing academic skills, proved to be widely appreciated.

It has been said that the DP suits those preparing for arts and humanities degrees more than for those entering pure and applied sciences. However, as can be seen in appendix 3, respondents in this project spanned all faculty areas and no distinction or preference is evident. The weight of the evidence indicated satisfaction across the board. There were a small number of reservations and these are recorded as appropriate. Interestingly, medical respondents appeared particularly confident about the depth of the programme and appreciative of the wider requirements, which they considered good preparation for careers in medicine.

Some felt that DP students were suited to multidisciplinary and combined degree courses as perhaps might be expected. This does not however seem to affect those in "pure" subjects who are equally enthusiastic about the DP's standards and content.

Clarity and Understanding

In conducting this study some ignorance of certain aspects of the programme was encountered, most noticeably in faculty staff who, understandably, focus within the confines of their own subjects. To some extent this lends authority to this study as judgments were being made on some issues on

educational and experience grounds rather than as a reaction to the whole package. The greatest ignorance surrounded the skills and assessment strategies of the programme. There is considerable enthusiasm for the skills acquired by DP students but little knowledge was shown of how these were achieved. Perhaps the IBO could consider improving the presentation of the skills and assessment aspects of the programme. The curriculum, elegantly presented as a hexagon, could perhaps have an assessment and skills equivalent in order to present this information. Interviewed respondents expressed a need for some explanation of the skills and assessment part of the DP.

Stability

Many respondents referred to the stability of IB Diploma Programme grades and to the absence of "grade inflation" (see Table 1). A possible consequence of this is that it might disadvantage DP students applying to university where they are in competition with A-level applicants to whom such inflation has been recorded.

Tariff System

The UCAS tariff system has been developed to "iron out" differences between entrance qualifications by recognizing all that students do by awarding points and also by providing a "common language" for admission purposes. Many of those interviewed for this project were suspicious of the tariff system's value and they tended to use it in conjunction with more traditional styles of offers. It is however fair to say that the tariff system is so new that it has not yet established itself in the eyes of all admission tutors.

To date the IB Diploma Programme is not part of this system. Many interviewees saw little need for its inclusion given the internal coherence and integrity of the DP's assessment and points-awarding format. Others felt that if it should be given a tariff then this should be on the basis of its own characteristics rather than an attempt to equate it with unlike systems such as Curriculum 2000 and A-levels. Preparation for at least three higher level subjects (widely

accepted as equivalent to A-levels), with the additional three standard level subjects, TOK, the extended essay and CAS in a full two-year programme would put the DP's tariff rating at a very high level.

Positive Perception

Many respondents reflected on why they had a positive perception of IB-prepared students. Some wondered whether these students were self-selecting and from "better schools". The project did not set out to measure individual student performance although it would be naïve to think that this was not powerfully influential in the answers given. It set out to examine the response to the curriculum-its adequacy, strengths and weaknesses-with the focus on its elements as contributors to the skill and knowledge needs of degree courses. These elements were evaluated accepting that all students admitted to their respective degree courses had met the admission requirements with their differing qualifications. Able students were therefore compared in terms of their qualification background rather than for any other perceived advantage or disadvantage.

Less-able Students

A view expressed by a small number of respondents was that the DP curriculum might be too challenging for the less-able student (although two respondents thought that the DP suited the less-able student best). Certainly a curriculum with compulsory disciplines might cause difficulties. The compulsory inclusion of mathematics and a second language are often cited as possible problems.

Conclusion

This report has turned out rather differently to that expected at the outset, simply because the acceptance and enthusiasm for the IB Diploma Programme (DP) was far stronger than anticipated. Out of all the respondents, 96% favoured the broader programme offered by the IBO, and 97% were satisfied that DP students were well prepared for undergraduate courses. Indeed 57% thought students were advantaged by having done the DP with only 3% thinking DP students were disadvantaged.

The core of the project however was to examine the strengths and weaknesses of the educational content of the DP curriculum, particularly those elements that are both attractive and useful for degree studies. These elements include depth, rigour, flexibility, transferability of skills, critical thinking, communication skills, self-directed and managed learning, and motivation. The elements of the programme encouraging the development of these skills were very favourably viewed and received high ratings both in their own right and in comparison with other systems. The figures have an authority conferred upon them by the range of contributors from so many faculties and departments in so many institutions (122 replies from 71 institutions were received and 34 interviews were conducted in 20 universities). Many of those interviewed were in addition to those who made written replies.

The project was not initiated to prove the superiority of the system or as a marketing device. After 30 years of operation it was time to take stock of reactions to the DP from higher education in the UK. Similar studies might also be profitable in other countries. Unavoidably some of the questions were of a comparative nature. For a good number of its 30 years the IB Diploma Programme has itself faced comparison with other systems simply to prove itself and to persuade universities of its quality. It is now accepted more and more in its own right and, as this report shows, with much enthusiasm. Over the period of its existence much effort has been made to equate it to A-levels and even to grade it for league table requirements on a formula based on A-levels. Such an equivalence was unfair to DP students and schools and was, in itself, an academically suspicious operation. The thoughtful and careful responses to this inquiry provide evidence that the IB Diploma Programme is now being assessed as a qualification in its own right.



Appendices



Appendix 1

Questionnaire

THE INTERNATIONAL BACCALAUREATE DIPLOMA

A REVIEW OF THE REACTIONS OF UNIVERSITIES AND INSTITUTIONS OF HIGHER EDUCATION TO THE IB

Candidates have been admitted to British Universities and Institutions of Higher Education on the basis of their IB diploma qualifications since 1970. Numbers of such candidates have increased significantly over the years as more and more schools and colleges have opted to take up the IB. Examination candidature for the IB has increased by more than 10% per annum in the last 10 years such that in 2002 there were 50,000 entries worldwide.

IBO is now conducting this research project in order to identify strengths and weaknesses of its curriculum and to formalise the extensive anecdotal evidence which exists about IB students and their performance in Higher Education. The investigation may be particularly apt at this time given the developing debate on 14-19 Education in the UK.

IBO and those conducting this research much appreciate your help which will be duly acknowledged in the final report. The following questionnaire will be distributed to some 225 institutions and follow up interviews will be conducted in 20 to 30 of these.

Colin Jenkins, formerly Director of Examinations at IBO and Principal of Atlantic College, will direct the project in collaboration with Professor J.J. Thompson, Director of Research at the IBO.

The following questionnaire has been constructed to assist respondents by being short. It is divided into two parts: 10 short response questions followed by 6 questions allowing for the expansion of responses to some of the first group.

OUR SINCEREST THANKS FOR YOUR HELP.

Completed questionnaires should be returned to:

Colin Jenkins, Project Director International Baccalaureate Organization Peterson House Malthouse Avenue Cardiff Gate Cardiff CF23 8GL

	ernational Baccala a Questionnaire	ureate
Details	of Respondent	
Name of	f Institution	
Departn	nent/faculty/regist	ry
Name o	f Person completing	ng this form
Position	l	
Your ex	xperience of IB st	cudents
It is acc question	*	strative/admissions respondents and academic respondents may answer different
Please t	ick ($\sqrt{\ }$) the relevan	nt box
1.	Do you have ex	sperience of students with IB qualifications?
	Yes	
	No	
2.	How many sucfive years?	h students have you dealt with either administratively or as teacher/ tutor in the last
	Fewer than 5	
	5 to 10	
	10 to 20	
	More than 20	
3.	Have you notic	red any particular distribution of admitted students to specific faculty areas?
	Yes	
	No	

4.	Are you able to indicate	Are you able to indicate which?							
	Arts								
	Social Sciences								
	Languages								
	Business Management								
	Science								
	Technology								
	Medical								
	Law								
	Architecture								
	Performing Arts								
	Other								
further (enhanced by a varied assessi	f a range of skills as an integrated part of the student's programme which is ment strategy. Supportunity to expand on your response on page 5.							
5.	Do you favour attempts	to broaden the post-16 curriculum?							
	Yes \square								
6.	Yes □ No □								
	No \square	e IB curriculum prepares students adequately for undertaking ourses?							
	No □ Are you satisfied that the								
	No Are you satisfied that the undergraduate degree co								

7. Which aspects of the International Baccalaureate, do you think contribute sign acceptability and effectiveness?							e signifi	icantly to its	
	•	The requirement for a wide	range	of disc	cipline	s (skills)			
	•	The depth and rigour provi	level						
	•								
	•	ï							
		addition to the six subject cu ernational Baccalaureate Dip					arther three re	equirem	ents before an
	• A 100 hour course on the Theory of Knowledge aimed at helping the development of critical and thinking skills.								
	•	An Extended Essay of 4,000 development of research sk		s on a	topic o	of the stu	dent's choice	to enco	ourage the
	•	An active involvement in co	ommun	ity serv	vice, a	esthetic a	and other acti	ivities	
8.	Do you find these elements of the IB programme to have any value in the student's progress through their studies?								
	•	Theory of Knowledge	Yes		No				
	•	Extended Essay	Yes		No				
	•	Service/Action/Activities	Yes		No				
amendment seen as unn that depth is	s to eces s edi	much innovation in 16-19 ed the 'A' level system. This has sarily narrowing at this age. ucationally satisfying to stud . The following questions re	as been The IE lents at	n due to B has en this ag	the ambrace	cceptanced a broate at the s	e that tradition der system, b same time pro	onal 'A' out with	levels have been a recognition
9.		you consider that the IB as a ds to its students being:	a prepa	aration	for Hi	gher Edu	ication as cor	npared t	to 'A' level,
	•	Relatively disadvantaged							
	•	Relatively advantaged							
	•	Unaffected							

Could you rate on a scale of 1-10 (best), the relative strengths and weaknesses of four admission qualifications, which are commonly presented by applicants to undergraduate courses. 10.

	Depth	Breadth	Critical Thinking	Communication Skills	Self Management	Motivation
2—4 'A' levels						
'A' levels together with general studies						
Curriculum 200 A/AS						
The IB Diploma						

Please continue on next page in which there is opportunity to expand your views which will be much valued by the IBO.

The following questions relate to questions 5 to 10 in the first section. We hope that you will use them to expand on your brief replies in the first section. IBO is keen to identify strengths and weaknesses in its diploma curriculum and to relate these to the national system. The information will be of value in assisting IBO to contribute to the ongoing national debate on 14 - 19 provision.

- 5b As the IB curriculum is designed to promote breadth, could you comment on any perceived advantages or disadvantages of this to students? 6b In what respect does the IB curriculum provide an effective preparation for your degree courses and in what respects are there any perceived weaknesses? 7b Which features of the IB programme are attractive to you and which are unappealing? 8b Do you find the experience gained by the students in the Theory of Knowledge, Extended Essay, Service and Activities to be of any value? 9b Compared with students with admission qualifications other than the IB, do you feel there is any distinct advantage or otherwise to IB students in your degree course(s).
- 10b The IB philosophy of encouraging critical thinking and 'learning how to learn' is central to its aims. As compared to other qualifications, do you think IB students are in any way noteworthy in demonstrating these skills?

Appendix 2

Guidance Notes for Interviews

- What general impressions do you have of IB Diploma Programme students?
- Do you keep any formal records of DP student performance within your record system?
 - How do you do this?
 - Can you give me results of these?
- Are their particular weaknesses in DP student preparation for your degree courses?
 - Are these weaknesses marked in any particular faculty/subject area?
 - Can you describe the nature of the problems?
 - Do you have any views or recommendations that might help the curriculum and examination designers within the IBO?
- Are there particular strengths to be noted in DP
 - Are these strengths particularly evident in certain faculties/subjects?
 - What do you consider particularly attractive in DPprepared students?
 - Do you have any views or recommendations that might be useful to the IBO?

- Are you familiar with the DP curriculum and with assessment strategies used by the IBO?
 - Do you feel that DP students are on the whole better prepared for higher education than those with different starting qualifications?
 - Do you have any views about DP students' study and self-management skills; their written and oral communicative skills, and their capacity to be problem solvers ie their ability to handle new and unfamiliar material?
- The IBO has a compulsory requirement for extracurricular activities, the non-completion of which leads to a diploma not being awarded. Is it noticeable that DP students take an active part in university life outside their academic responsibilities?
- Do you have any views about an IB Diploma Programme preparation as against the predominant national preparation systems?

The IB Diploma Programme is now often quoted as being preferable to A-levels. The IBO has not played a significant part in this debate. Your views in this project will help the IBO to assess its own strengths and weaknesses in this debate.

Appendix 3

Institutions and Personnel who Completed the Questionnaire

The University of Aberdeen Dr SP Townsend Director of studies (adm) sciences

Anglia Polytechnic University Mr R Edwards Director, admissions and recruitment

Aston University Dr GF Carpenter Senior lecturer, electronic engineering and admissions

Dr RM Smith Director of combined honours

Ms S Herkes Business school, admissions and marketing manager

University of Bath Dr K Lloyd Clark Senior assistant registrar

The University of Birmingham Ms D Chambers Director of admissions

Dr JR Yandle School of computer sciences

Dr A Arrowsmith Senior lecturer, chemical engineering

Professor C Lote Associate dean, medicine

Dr I Pickup Senior tutor, joint honours, historical studies and

humanities

Bishop Grosseteste College, Lincoln Professor E Baker Principal

Bolton Institute Mr T Openshaw Planning officer

University of Brighton Mr G Watts Physiotherapy, admissions

Dr M Philip School of engineering and admissions

University of the West of

England, Bristol

Ms D Francombe

Director, admissions

University of Buckingham

programmes

Ms L Waterman

Secretary, economics and international studies

University of Cambridge Dr R Barnes Senior tutor, admissions

University College Chichester Mr B Savill Admissions officer

Coventry University Dr A Salter Senior lecturer, school of molecular sciences

De Montfort University Ms A Maddox Team leader, student entry and support

University of Derby Professor RH Faithorn Pro-vice-chancellor (academic)

The University of Dundee Dr G Craig Director of admissions and recruitment

University of Durham Mr M Andrews Assistant registrar

University of Essex Mr M Nicholson Head, student recruitment and admissions

University of Exeter Ms P Hoad Undergraduate admissions officer

School of applied sciences University of Glamorgan Dr E Morgan

> Dr M McNorton Associate head, school of humanities and social sciences

The University of Glasgow Professor A Nash Vice principal, learning and teaching

> Dr J Brown Director of admissions

University of Gloucestershire Mr G Magretts Admissions manager

Goldsmiths College, University

of London

Mr G Fox Assistant registrar

Admissions officer Heriot-Watt University Ms P McLean

University of Hertfordshire Mr A Weir Dean of the faculty of interdisciplinary studies

Ms C James The University of Huddersfield Head of education and professional development

> Professor MI Page Dean, school of applied sciences

The University of Hull Ms S Dowling Head, student recruitment and admissions service

> Law school, admissions Dr A Kewley

Ms S Longbone Faculty of arts and social sciences

Imperial College of Science, Dr E Smith Lecturer in chemistry, admissions Dr O Pretzel Technology and Medicine, Lecturer in mathematics, admissions

University of London Dr AR Fielder Medicine, admissions

> Dr JW Bates Biological sciences, admissions

Dr J Butler The University of Kent at Canterbury Director of undergraduate admissions, social sciences

> Dr P Shore Executive officer, recruitment and admissions

Dr K Uren Humanities

Mr SP Holdcroft Head recruitment and admissions

Dr PJ Nicholls Lecturer, cell and molecular biology, admissions

Kingston University Mr L Martin Head of enquiries and applicant services

The University of Leeds Ms G Healy Assistant registrar

Leeds Metropolitan University Ms C Orange Academic registrar

Dr L Howard University of Leicester Sub-dean, medicine

> Dr A Peppit Assistant registrar, medicine Dr K West Senior admissions tutor, medicine Dr R Parry Deputy admissions tutor, law

Dr J Scott Director of studies, school of biological sciences

Dr S Wheatley Price Senior lecturer economics, admission

University of Liverpool Mr G Kelly Director of student recruitment

London School of Economics and	Dr G Duranton	Reader in economic geography
Political Science	Dr M Banks	Reader emeritus, international relations

Dr M Banks Reader emeritus, international relations Ms M Kilyon Undergraduate admissions

Loughborough University Mr H Jones Senior assistant registrar

The University of Manchester Dr J Henshaw Head of recruitment and admissions

The Manchester Metropolitan Professor BS Plumb

University

Mrs JM Read Head of admissions Middlesex University

The University of Newcastle Mr K Young Admissions officer

> Assistant director, international office Mr J Terry

Deputy vice-chancellor

Dr A Anderson Engineering, admissions

University of Northumbria at Mr M Moss Psychology, admissions

Newcastle Dr J Wainwright Newcastle business school, head of admissions

North East Wales Institute of Higher Ms S King

Education

Business school, admissions Mr E Davies Education, admissions Dr R Dover Humanities, admissions Mr K Dawson Health, nursing admissions

Mr A Preston Psychology and sociology, admissions

Mr V Raimo University of Nottingham Head of international marketing

The Nottingham Trent University Professor T Palmer Pro-vice-chancellor

Mr W Swan The Open University Dean, faculty of education and language studies

University of Oxford Ms J Minto Director, Oxford colleges admissions office

Oxford Brookes University Mr K Daniels Head of admissions

University of Paisley Mr D Rigg Secretary and registrar

Professor A Glasmer Pro-vice-chancellor University of Portsmouth

> Ms M Jenkins Assistant academic registrar Dr GD Reid Programme director, sciences Dr M Cockran Environmental sciences, admissions

Dr D Russell Associate dean, faculty of social sciences and humanities

Dr M Huntbach Queen Mary, Computer science

University of London Dr JC Shelton Reader, engineering, admissions

> Dr JM Pitts Lecturer, electronic engineering, admissions

Dr A Spencer Lecturer, economics

Queen's University of Belfast Mr SM Wisener Admissions officer

Ms L McLean Student administration manager The Robert Gordon University

Royal Holloway, University of Dr C Howorth School of management, director of external and executive

London programmes

The University of Sheffield Head of admissions Ms A Kingston

Head of admissions Sheffield Hallam University Ms K Thompson

Southampton Institute Mr N Dallery Southampton business school, admissions

> Ms P Lardot International marketing officer

University of Southampton Ms A Mills Head of recruitment and admissions

Dr R Farwell Pro-vice-chancellor South Bank University

Ms C Alcock Admissions officer Staffordshire University

Director of admissions University of St Andrews Mr S Magee

The University of Stirling Ms K Davidson Admissions officer

University of Sunderland Professor P Smith Dean, computing and technology

> Professor D Burke Dean, health, natural and social sciences

Dr L Wilson Associate dean, school of education and lifelong learning

University of Surrey Dr CM Howard Dean, school of engineering

> Dr M von Schjutz School of biomedical and life sciences

University of Sussex Mr O Richards Academic registrar

Surrey Institute of Art and Design,

University College

Ms H Anderson

International development manager

Thames Valley University Dr J Strong Head of media

> Dr R Colson Course leader, digital art and design

University of Wales, Aberystwyth Dr JH Harries Dean of science

Professor J Barrett Pro-vice-chancellor

University of Wales College,

Newport

Mr J Walmsley

Assistant head, school of art

media and design

University of Wales Ms P Clarke Assistant registrar Dr PJ Winterburn College of Medicine Medical sub-dean

University of Wales Institute,

Cardiff

Dr RJ Williams Director of learning and

teaching, school of health and social sciences

Dr P Thomas Director of learning and teaching, education

Dr PD Coleman Director of learning and teaching, school of hospitality,

tourism and leisure

University of York Dr P Hogarth Biology, admissions

> Professor P Walton Chemistry

Appendix 4

Institutions and Personnel Interviewed

Admissions and Student Recruitment

Mr R Edwards, Director, admissions and recruitment, Anglia Polytechnic University

Ms D Francombe, Director of admissions, University of the West of England, Bristol

Dr R Barnes, Senior tutor, admissions, Emmanuel College, University of Cambridge

Dr G Craig, Director of admissions and recruitment, The University of Dundee

Dr J Brown, Director of admissions, The University of Glasgow

Ms L Burton, Director of admissions and recruitment, University of Leicester

Mr G Kelly, Director of student recruitment, University of Liverpool

Ms W Ferguson, Admissions officer, Loughborough University

Dr J Henshaw, Head of recruitment and admissions, The University of Manchester

Ms L McKean, Recruitment and admissions, The University of Manchester

Mr SM Wisener, Admissions officer, Queen's University of Belfast

Mr R Evans, Admissions officer, University of Sussex

Arts

Dr I Pickup, Senior tutor, joint honours, historical studies and humanities, The University of Birmingham

Dr JR Yandle, School of computer sciences, University of Birmingham

Dr J Hampshere, arts/combined studies, The University of Manchester

Biological Sciences, Biochemistry and Medicine

Dr J Scott, Director of studies, school of biological sciences, University of Leicester

Dr J Kay, Biochemistry and medicine, University of Sussex

Chemistry

Dr E Smith, Lecturer in chemistry, admissions, Imperial College of Science, Technology and Medicine, University of London

Engineering and Applied Sciences

Dr GF Carpenter, Senior lecturer, electronic engineering and admissions, Aston University

Dr D Robb, Imperial College of Science, Technology and Medicine, University of London

Geography, Economics and Environmental Sciences

Dr G Duranton, Reader in economic geography, London School of Economics and Political Science

Languages

Dr S Wharton, Modern languages department, University of Bath

Law

Dr A Kewley, Law school, admissions, The University of Hull

Dr R Parry, Deputy admissions tutor, law, University of Leicester

Mathematics

Dr O Pretzel, Lecturer in mathematics, admissions, Imperial College of Science, Technology and Medicine, University of London

Medicine

Professor C Lote, Associate dean, medicine, The University of Birmingham

Ms L Harding, Medical admissions, The University of Manchester

Dr PJ Winterburn, Medical sub-dean, University of Wales College of Medicine

Physics

Dr F Loebinger, Physics, The University of Manchester

Senior University Administrators

Mr L Currie, Assistant registrar, University of Bath

Professor G Ward, Deputy principal, The University of Dundee

Professor RD Rawlings, Pro-rector (educational quality), Imperial College of Science, Technology and Medicine, University of London

Mr H Jones, Senior assistant registrar, Loughborough University

Professor J Barrett, Pro-vice-chancellor, University of Wales, Aberystwyth

Dr JH Harries, Dean of science, University of Wales, Aberystwyth

Social Sciences

Dr J Butler, Director of undergraduate admissions, social sciences, The University of Kent at Canterbury

Appendix 5

Interview Reports

Anglia Polytechnic University

Anglia Polytechnic University does not carry out specific tracking of student entries with different qualifications, although there is "local" knowledge among academic staff from their contact with their students. Mr Edwards emphasized that his comments were made from the broader base of admissions and of reports he had heard from academic departments.

He had the impression that depth was only an issue in science areas where faculties wanted good underpinning for their courses. It was clear that the standard level was not enough for students as a base. Students bringing just one higher level subject were likely to have difficulty in gaining admission.

Many aspects of the breadth of the DP were welcome and he felt that this breadth seemed to produce well-rounded students. Skills important to university students were addressed in this broader curriculum. He was less enthusiastic about how these skills might be achieved in the Curriculum 2000 scheme.

The requirement for a second language and mathematics were seen to be of value and compulsory mathematics was of value in many faculties where numeracy and the handling of statistics were part of the programme.

The extended essay and theory of knowledge were seen as "splendid" preparation for the sort of skills needed in higher education and led to DP students being good participants in tutorials. CAS also was seen to produce well-balanced students although no particular use was made of this part of the curriculum in the selection of students. There was some feeling that the demands of Curriculum 2000 were reducing extra-curricular activity.

Name of institution:	Anglia Polytechnic University
Department:	Admissions and recruitment
Interviewed respondent(s):	Mr R Edwards, Director, admissions and recruitment
Date:	4 February 2003

The range of assessment skills required in the DP suits students in university courses and was rated as being very valuable.

A difficulty Mr Edwards faced as an admissions tutor was in establishing an equivalence between DP students and those with other qualifications. He used the UCAS tariff system but the DP was not a part of this, which was a problem and might disadvantage the admission of DP-qualified students.

University of Bath

The university does not have a formal tracking of students with different qualifications, although studies have been conducted in the past with the IB Diploma Programme being seen as equivalent to A-levels. The university produces an excellent dedicated brochure for DP applicants.

Mr Currie's information from department admission tutors was that DP students were highly acceptable and the depth of preparation they had undergone was in no way a problem. Some departments (for example, mathematics) expressed their satisfaction not only with DP mathematics but also with the communicative skills of the students.

The tutors expressed particular enthusiasm for the breadth of the DP and liked the six-subject formula. They were not however particularly focused on the contents of the hexagon. They needed appropriate higher level subjects for their subjects but were not specific about the rest of the programme and had no strong views about the inclusion of mathematics and a language. Bath however sees itself as a "quantitative" university and numerical skills are an advantage to the students. For example, some subjects such as economics and international development, computer science, and business administration ask for either higher or standard level mathematics.

Mr Currie touched on the compulsory elements of the DP (the fixed discipline range required) and felt that this might be a problem in any revision of the national system of education at this level. He felt that the skills achieved in a broad programme were beneficial and appropriate and were better as part of an integrated programme rather than as a separate qualification as in Curriculum 2000.

There was no special knowledge about or emphasis on the extended essay and theory of knowledge requirements but the university was clear in its enthusiasm for the "whole package" of the Diploma Programme. Students applying to the university with specific subject certificates only were not considered for admission although he could see a situation where a faculty might be interested in students with appropriate certificate subjects. It is interesting however that the depth of individual higher level subjects make them of sufficient interest as certificate subjects.

Name of institution:	University of Bath
Department:	Registry (admissions)
Interviewed respondent(s):	Mr L Currie, Assistant registrar Dr S Wharton, Modern languages department
Date:	6 February 2003

CAS was certainly seen as "interesting", as an enrichment of the student's education and as useful in the personal statement on the student's UCAS application form. However this element would not influence academic judgments on the admission of students.

Mr Currie felt that it was sometimes difficult to make offers in DP language disciplines because of the extended essay and theory of knowledge bonus points system, but understood that these bonuses should be included in "points total" offers

Dr Wharton was enthusiastic about DP students. He felt that language students had a wide range of interests and he was very favourably disposed to the theory of knowledge requirement. He felt that it allowed students to think "out of the box", and helped to give them an openness of mind and a structure for their thinking.

Mr Currie liked the presentation of the DP curriculum but would welcome an easier access to syllabuses and a moreuseful web site.

The University of Birmingham

There was some divergence of views at the University of Birmingham. Professor Lote, responsible for medical applicants, had no formal tracking method for students with different entry qualifications but noted that there were no DP students on the failure list. His impression was that DP students did very well in comparison with A-level entries and was satisfied with the scientific preparation of DP students. The department requires at least two higher level science subjects and prefers chemistry and biology for admission purposes. They make offers of 36 points. He expressed considerable enthusiasm for the format of the DP and was less enthusiastic with current A-level developments. He felt that the range of demands of the full Diploma Programme prepared medical students for the selfmanagement they needed to cope with up to 12 modules in their medical course at any one time, and that this was a distinctive characteristic of DP students.

Dr Yandle had experienced some difficulties with a group of DP students who had not completed their courses. (He also mentioned that similar problems had occurred with A-level entries.) His department has no specified subject requirements for entry but he was clear that DP entries should have higher level mathematics with at least a grade 6 and a total of 32 points. He felt that the skills programme in Curriculum 2000 might be of advantage. He felt that the extended essay and theory of knowledge components might, together with the broader Diploma Programme, spread the students "too thin" rather than encourage their research skills.

Dr Pickup also had no formal tracking programme and dealt with many entry qualifications (for example, in the language school, A-levels, DP, European Baccalaureate, French Baccalaureate, Abitur). He felt that the DP training gives a range of broader skills and that these were a good common denominator for all the programmes he dealt with. He felt that DP students had built-in essay-writing skills from year one, perhaps influenced by the extended essay experience. In languages he was aware that DP students have diverse starting points, from ab initio to very competent. Because of this he sets the admission high with a requirement of two 6s in two higher level languages to ensure his confidence in his choice of students.

Name of institution:	The University of Birmingham
Department:	Joint honours arts, medicine, computer science
Interviewed respondent(s):	Dr I Pickup, arts Professor C Lote, medicine Dr JR Yandle, computer science
Date:	21 January 2003

University of the West of England, Bristol

There is no formal tracking by admission qualification at the university but interested staff carry out small sample surveys.

The depth of study provided by the higher level subjects is entirely adequate and may even be a disadvantage in early days at the university as students with such variable entry qualifications have to be brought to a common level to allow for their ongoing studies. DP students are usually not in need of such preparation.

The breadth of the DP is seen to be a big advantage as courses at the university require the pursuit of six modules and a range of assignments in the first year. The DP has already equipped students with the skills to deal with this approach. The skills of DP students are also more useful and relevant than the separate key skills programme of Curriculum 2000.

The DP's format helps students to make academic decisions in a themed, cohesive way. The emphasis in parts of the programme on critical thinking skills helps to avoid learning by rote and a temptation to follow the narrowest programme possible.

CAS activities are interesting in application forms but do not play a part in making admission decisions.

The university makes use of the UCAS tariff system, which helps in the standardization of a range of admission qualifications. Non-standard students not included in this system (including DP students) may be at a disadvantage. The problem arises partly as some degree programmes are linked to professional qualifications that are controlled by professional bodies who set certain standards for admission.

Name of institution:	University of the West of England, Bristol
Department:	Enquiries and admissions
Interviewed respondent(s):	Ms D Francombe, Director, admissions
Date:	6 February 2003

Normally the university looks for the complete diploma for admission and would only admit certificate candidates to the foundation year.

Emmanuel College, University of Cambridge

Dr Barnes, in addition to his broader admission responsibilities, also deals specifically with medical, veterinary and biological subjects.

There is no specific tracking mechanism for students admitted with different qualifications although a more informal awareness is common.

Dr Barnes finds that the depth provided by DP higher level subjects is completely adequate in the arts and humanities subjects as it is in the biological sciences. There is a slight difference between higher level physical science courses and A-level courses but this difference does not cause a longterm problem. He was disappointed that the outstanding DP language courses of earlier years had lost some of their edge and that there had been a dilution in, for example, the amount of literature studied. However, he was not suggesting that they were at a lower level than A-level language courses.

He was very supportive of the breadth provided by the DP and did not feel that this in any way proved a handicap to the students. He was particularly supportive of theory of knowledge and considered the absence of something similar from the national system to be a serious omission. He found that DP students were active in tutorial situations and demonstrated critical thinking skills perhaps encouraged by their experience in the theory of knowledge. He considered it to be an "intellectual key skill".

The extended essay was clearly a positive exercise but as an academic making decisions on academic qualities he did not feel that CAS was very important. It could well be of value in other spheres but was not relevant in his duties as an admissions tutor.

Dr Barnes had the impression that DP students thrived best in very busy, active and structured programmes where they were good at managing their time. In more unstructured programmes such as history, where they need to work more on their own, they needed a little more "love and attention". However, DP students do demonstrate good writing skills.

Name of institution:	Emmanuel College, University of Cambridge
Department:	Admissions
Interviewed respondent(s):	Dr R Barnes, Senior tutor, chair of university admissions committee
Date:	29 January 2003

He wondered about the issue of grade inflation, evident in Alevels, and he felt that it was also perhaps an issue with the DP. He would like statistics on this issue and also felt that a menu of skills achieved by students in their full diploma programme would be very useful. The full range of subjects across many disciplines should provide an interesting menu and one that would be of value to admissions tutors in addition to their obvious educational value

It had been the feeling at Cambridge that the national Curriculum 2000 post-16 revisions would have been something like the DP and this they would have welcomed.

The University of Dundee

The university has about 150 DP applicants a year, and many of these are for medicine. While there is no formal tracking system at the moment, informal systems exist in individual departments. Plans for upgrading this process are under consideration.

The University of Dundee is entirely satisfied with its DP entrants. Their performance is well rounded, motivated and they are very well prepared for university studies. They are very much the type of student the university likes and wishes to encourage.

The university prospectus includes details of the admission requirements for DP students and these are based on the qualities of the whole curriculum content of the Diploma Programme. Efforts are being made to encourage the admission of more DP students and the university is building relationships with IB schools, many in Greece and Germany and further afield.

The depth and rigour of the DP higher level courses are totally adequate for the degree programmes at the university, and those who perform to a good standard in these subjects are considered to be well-enough prepared to enter the second year of the four-year degree programme. The structure of the DP makes it particularly compatible with the Scottish system.

Diploma Programme students are seen to be more balanced and to have the ability to make connections between subjects and topics. These students have vital and appropriate skills that match the increasing interdisciplinarity in university programmes. Greater flexibility and variability in the structure of university education is becoming increasingly evident and the broad training received by DP students is well suited for this.

Professor Ward and Dr Craig did not think that the DP's compulsory elements played a significant part in faculty opinion, but they were clear that DP students possess a range of skills that were very attractive. Both the extended essay and the theory of knowledge components were seen to be excellent, and points gained by students contributed to the points totals specified for admission to the university. It was clear that these components contribute to the critical thinking skills of the students, skills that were becoming more and more essential as concepts of education and knowledge change in the light of IT and other developments.

Name of institution:	The University of Dundee
Department:	Admissions and recruitment
Interviewed respondent(s):	Professor G Ward, Deputy principal Dr G Craig, Director of admissions and recruitment
Date:	14 February 2003

The university uses the UCAS tariff system but the key skills qualification of Curriculum 2000 is not included but might be "regarded and considered" when making admission decisions.

The University of Dundee is very well disposed to the CAS component and sees it as enriching and a valuable contribution to the personal statement on the UCAS form. The university is keen to look at the personal qualities of students and, for example, its offers for admission to medicine recognize that extra-curricular activities take time and effort. Consequently their placement offers take this into consideration and, while they are still stringent, they are not inflexibly dependent on a string of top grades.

There is little doubt that the DP is viewed as an attractive programme and the performance of DP students at the university provides ample evidence for this. Both Professor Ward and Mr Craig emphasized their satisfaction and enthusiasm for the programme and would welcome many more DP students.

The University of Glasgow

The University of Glasgow has a tracking system for the performance of students entering with different qualifications. Diploma Programme numbers are small and not formally included. (In 2003, 117 DP students received offers of admission and many more are expected when decisions in the medical, dental and veterinary faculties are made in April.) The university prospectus includes details of DP admission requirements and the university considers it to be a most valuable qualification and is keen to encourage it. Offers for arts and humanities subjects are in the region of 30-32 points. Applicants from North America will only be considered for medical faculties if they have DP qualifications as it is seen as a guaranteed preparation while many other qualifications are less certain. However, non-English native speakers may be asked for English qualifications additional to those they may have in their diploma.

Dr Brown emphasized that the university had experienced excellent DP entrants and that it has great confidence in the qualification. The depth of preparation in higher level subjects is entirely satisfactory, including for mathematics. The breadth of the DP is ideal for the structure of Glasgow degree programmes. The university admits students to a faculty and they follow a broad programme for two years and then specialize in the third and fourth years. Apart from the medical and veterinary fields the university does not make subject requirements on entry and the flexibility of the DP, coupled with its breadth, provides a first-class preparation for this style of study. The DP conveys great qualities of transferability as students proceed through the course, and it widens options for the students. The feeling is that A-levels, despite many excellent qualities, have begun a narrowing process.

The extended essay and theory of knowledge components are seen to be valuable in giving the students additional academic skills. Bonus points earned by students in these elements contribute to the points total specified in the university's admission offers.

Name of institution:	The University of Glasgow
Department:	Student admission and recruitment
Interviewed respondent(s):	Dr J Brown, Director of admissions
Date:	13 February 2003

CAS plays a less significant part and is not used in making admission decisions. It is recognized as resulting in morerounded and interesting personalities, but admission decisions are made on academic grounds and the inclusion or otherwise of CAS in the programme does not elicit much interest among faculty admission staff.

Dr Brown's consultations with faculty admission staff established that they are both happy and enthusiastic about the DP as a preparation for study at the university. Dr Brown provided a full list of this year's DP applicants and their schools of origin, which spanned a range of countries and continents. It was seen as a huge advantage to have a common and understood curriculum and examinations throughout the world.

The University of Hull

The University of Hull does not have a formal tracking system for students entering with different qualifications. It uses the UCAS tariff system but only in addition to basic grade requirement offers in specific appropriate subjects (which vary from faculty to faculty).

Dr Kewley was enthusiastic in her opinion of the DP and DP students and regretted that there were so few such students available for selectors. She wishes that there were more qualifications of this kind, even in the national system. She felt that too many students were trained to "jump through examination hoops" and that there were problems with overspecialization, a fault avoided by the broad Diploma Programme. Her knowledge of the DP had been enhanced by a visit to an IB school where she had been impressed by the abilities of the students to handle knowledge and unseen topics. She speculated that the students might have been "self-selecting" and therefore very good in any case, and wondered whether wider application of an IB-style education, which she favours, might cause difficulties in schools covering a wider range of students.

She felt totally satisfied with the depth and rigour of the higher level subjects and claimed that there were no problems and that indeed they might be better than A-level equivalents. She felt that DP students have the ability to analyse and showed great initiative in being able to work things out for themselves.

She was most supportive of the breadth of the programme and of the requirement to cover a range of disciplines. She noted that science students often had difficulties in presenting coherent written arguments and that the broad programme went some way toward solving this problem. The university takes measures in the first year to alleviate these problems and improve the capacity of all students in these skills.

Name of institution:	The University of Hull
Department:	Law
Interviewed respondent(s):	Dr A Kewley, Admissions selector
Date:	19 February 2003

The theory of knowledge component was seen to develop very useful skills and to help students be more than just goal orientated. The extended essay is of value in that it puts the onus of learning onto the students and develops skills that are of real value to them.

CAS was seen to develop the breadth of interest of the student and positive comments in this field helped admission tutors to assess how well rounded students are. The university experience of DP students is that they are never marginal and that all DP applicants receive offers for admission.

Imperial College of Science, Technology and Medicine, University of London

The college does not as yet have a formal tracking programme for students admitted with different qualifications, but informally there is considerable knowledge and experience of this. In preparation for this meeting there had been some research into records and into the performance of recent DP students.

Dr Pretzel was satisfied with the depth of preparation of DP students and, in particular, he commented favourably on the consistency of standards over the last ten years, particularly as A-levels seemed to fluctuate. He also prefers the style of questions in DP mathematics examinations, which are far less leading than those in A-level papers and therefore more truly testing of the students' mathematical training. He commented on written communication skills, which he thought were broadly unsatisfactory, but stated that such problems were not as evident in DP-prepared students. Both he and Dr Smith were not convinced about the value of the extended essay. Not all applicants had prepared essays in their subjects and therefore these had little discriminatory value in selection. They were also not sure that a grade was enough evidence for them to judge and that perhaps seeing the essay would be helpful.

Dr Smith felt that the DP higher level courses were not as deep as the A-levels, although the latter was "creeping downwards" towards it. He also felt that A-level students had done more practical work than those entering with DP qualifications, a very important issue for a subject such as chemistry. The result of this is that DP students found "straight chemistry" a challenge. Chemistry is now offered in combination with many other programmes and in these combined degrees the DP students benefit from the skills they have gained in their broader programme.

Dr Robb had an overall view and said that all departments welcomed DP applicants. There was a feeling that the broader base did not appear to be a handicap in predicting performance and actually helped to produce more interesting applicants. In his own subject areas, including physics, he had not detected the same issues as those raised by Dr Smith and, for example, there were no problems in practical physics. In the engineering faculties teamwork and interpersonal skills were important, but it was not possible to pick out any particular strengths in these respects in DP students.

Name of institution:	Imperial College of Science, Technology and Medicine,
Department:	Mathematics, chemistry, mechanical engineering
Interviewed respondent(s):	Professor RD Rawlings, Prorector (educational quality) Dr E Smith, chemistry, Admissions tutor Dr O Pretzel, mathematics Admissions Dr D Robb, mechanical engineering, Chairman undergraduate admissions committee
Date:	28 January 2003

There was some feeling that the national key skills qualification was not effective and was widely disliked. The integration of skills in the DP was seen to be a strength.

Professor Rawlings, who chaired the discussion, was particularly interested to see DP statistics over recent years and to be given some idea of the proportion of students securing the top grades. Grade inflation is an issue and such comparisons between the DP and A-levels would be of interest and value.

The University of Kent at Canterbury

The university does not have a formal tracking system for entrants with different qualifications although informal tracking takes place in some departments. They try to establish equivalences for different qualifications for admission purposes.

The depth and rigour of DP higher level subjects are seen to be entirely satisfactory in the social science faculty and the same impression exists elsewhere in the university. On the whole there is a preference for DP students over A-level candidates. There are no specific subject requirements in the faculty, and it prefers the breadth brought by the DP preparation.

The broader requirements of the DP match well with the university's policy to encourage its undergraduates taking single honours programmes to undertake modules in other departments or even in other faculties. Many degrees at the university are in joint honours and this suits DP students. A previous admission director at the university described the IB as a "near perfect blend of breadth and depth". Dr Butler describes himself as a "huge fan". However, he is aware that the broad programme and its compulsory demands can sometimes cause difficulties for individuals. He has sometimes recommended entry for students holding certificates where the full diploma has not been achieved.

Neither theory of knowledge nor the extended essay play a big role in admission decisions although the skills gained in these elements of the programme give students confidence in the value of ongoing university studies.

CAS does not affect admission decisions but the university recognizes its contribution in producing well-rounded students and they welcome its existence in the Diploma Programme.

Name of institution:	The University of Kent at Canterbury
Department:	Social Sciences
Interviewed respondent(s):	Dr J Butler, Director of undergraduate admissions
Date:	25 February 2003

The official university policy is to use the UCAS tariff system but many departments prefer to make offers on grades achieved in specific subjects. Dr Butler felt that the DP's points system was adequate in itself and saw little advantage in including it in the tariff system.

The university wishes it could admit more DP students and that the qualification was more widely available.

University of Leicester

Diploma Programme student numbers are not great at the moment and the university has no formal tracking system to follow their performance.

There is no problem with the depth of preparation of DP students for degree courses. Other entry qualifications such as Curriculum 2000 are merging with the DP in any case. Dr Scott felt that DP students had the more important thinking skills and independence of thought appropriate for university studies. As far as the law faculty was concerned a broad preparation was an advantage as the students brought a broad range of skills to a subject where no specific subject requirements are made for entry.

On the whole it was not possible to identify DP students as having greater skills than students entering with other qualifications. There was, in any case, a general problem with entering students not having appropriate skills and the university felt it necessary to address this deficiency in its own programmes. As far as outcomes go, the DP students do cope well and get good results.

Dr Scott was supportive of the extended essay element as it is appropriate to the university style of study. Dr Parry felt it was a useful element because it encouraged students to work on projects on their own.

Theory of knowledge does not have much impact although those interviewed felt, in principle, that its qualities of encouraging reflective thinking could only be an advantage.

CAS does play a part in helping to discriminate between otherwise equally qualified candidates. Dr Scott, who is also involved in medical admissions, emphasized the need for well-rounded students and for the sort of experiences CAS provides.

Name of institution:	University of Leicester
Department:	Law and biological sciences
Interviewed respondent(s):	Ms L Burton, Director of admissions and recruitment Dr R Parry, Deputy admissions tutor, law Dr J Scott, Director of studies, school of biological sciences
Date:	18 February 2003

The university uses the UCAS tariff system in some departments and not in others and finds that the Curriculum 2000 key skills qualification is not widely used in schools and so is of limited value in selection.

University of Liverpool

The university to date does not conduct any formal tracking of DP students. However, Mr Kelly had canvassed academic departments about the DP and Curriculum 2000. The reaction to the DP was very positive and there was much emphasis on the value-added benefits of the breadth of the curriculum. Some departments (for example, veterinary science) had reservations about depth as they ask for a very concentrated and specialized scientific preparation.

Academic staff had made special comment on the critical thinking skills of DP students and felt that both the extended essay and theory of knowledge components contributed to this. In particular they felt that theory of knowledge allowed students to step back and appreciate the totality of their learning. The extended essay clearly had an impact on the research skills of the students.

On more general academic skills it was felt that the DP integrated approach to skills was more sensible than the separate key skills programme of Curriculum 2000, which in any case is only patchily taken up and has proved unpopular with schools, teachers, students and universities. The separate key skills programme serves little purpose in admission requirements at the University of Liverpool.

The CAS requirement was not seen to have any academic value although its contribution was recognized as a part of the compulsory structured programme of the DP.

The university is not very interested in certificate students and requires the whole diploma for admission. However, an enthusiastic and supportive school intervention may be taken into positive account.

Name of institution:	University of Liverpool
Department:	Student recruitment
Interviewed respondent(s):	Mr G Kelly, Director of student recruitment
Date:	27 January 2003

A current issue at the university is the variable standard of A-levels and, although numbers are too small to allow comparison, the steady and consistent standard of the DP is noted and appreciated. Academic departments reacted most favourably to the breadth of the DP although they had not singled out the compulsory mathematics and languages for special comment.

London School of Economics and Political Science

Dr Duranton felt there was a stark contrast between students prepared for university courses through the DP and A-levels, with the former having a significant advantage, particularly in combined degree courses. He had "crunched some numbers" and found that DP students coped well whereas as many as 33% of A-level admissions had trouble. There was a consistency issue with A-levels in that different boards and different modular structures did not provide a known set of skills and knowledge to the students. The need for mathematics for many of the courses was satisfied by its compulsory inclusion in the DP, but it was often a real problem for those admitted with A-level qualifications where mathematics is not a requirement.

He was confident that the depth of study in the DP higher level subjects was not a problem and that the breadth of the programme did satisfy the needs in his programmes far better than a narrow preparation. This he found to be the case with students admitted with continental qualifications such as the French Baccalaureate and the European Baccalaureate. He felt that these broader programmes (including the DP) gave the students a distinct cultural depth essential in a university student. Specialization between 16 and 18 made this more difficult. Dr Duranton speculated on the possibility that some of the differences might also be due to the social background of the students.

He was confident that both the theory of knowledge and the extended essay enhanced the DP curriculum and the students' capacity for critical thinking. He detected a strong independent streak in DP students and a confidence to address academic issues. He felt that this was vital in maintaining standards.

Name of institution:	London School of Economics and Political Science
Department:	Geography, economics, environmental studies
Interviewed respondent(s):	Dr G Duranton, Reader in economic geography
Date:	28 January 2003

Dr Duranton was generally satisfied that students admitted with DP qualifications brought with them many of the skills necessary to make good university students and that it was the total curriculum that gave them these qualities.

Loughborough University

The university has a tracking system for students entering with different qualifications that would allow DP students to be flagged. However, to date, numbers have not been great enough to require this.

The admissions tutors at the university have no concerns about the depth and rigour of DP higher level subjects. The offers they make in mathematics and physics are fairly high so any problems with depth might be concealed by the ability of the students and their capacity to make up any possible deficiencies. However, the university has no reservations on the issue of depth.

They are also very supportive of the breadth of the programme and appreciated that the DP had been designed in a coherent and cohesive manner.

They were not able to detail any specific reaction to skills brought by DP students because of the low numbers but it was clear that admissions tutors throughout the university had not identified DP students as facing any problems in this area. The DP requirement to study contrasting subjects was seen as an advantage.

The points gained in both theory of knowledge and the extended essay contributed to the points total set for admission and were appreciated elements in the programme. It was hoped that the AS course in critical thinking might serve a similar purpose. The extended essay was seen as a benefit as it provided a good preparation for independent research, which is a vital part of study for a degree.

The personal statement on the UCAS form is seen as being important and even some of the more competitive faculties take note of its contents, as they do of the school reference. CAS has a clear value in contributing to this and its inclusion is seen as helping to make interesting applicants.

Name of institution:	Loughborough University
Department:	Admissions
Interviewed respondent(s):	Mr H Jones, Senior assistant registrar Ms W Ferguson, Admissions officer
Date:	18 February 2003

The UCAS tariff system is only partially used and it was felt that the DP did not need to be part of it given its structure and well-understood points system.

Students offering certificates only do not formally matriculate for entry and special approval would be needed before such applicants could be considered.

The University of Manchester

The university does not have a formal tracking system for DP students or for those entering with any other qualifications, although many departments have their own systems in place. As numbers of DP students in any one discipline are relatively small it is possible to show some interest in their progress.

Dr Loebinger reported that DP students do well in physics (although he noted that some foreign entrants sometimes left the university before completing the programme). The broad programme followed in the DP has no negative effect on the depth of students' preparation for university studies in physics and indeed their skills in project work, language and essay writing are a real bonus, leading him to state that "I would lean over backwards to admit IB students". The department has good tutorial support that tackles any omissions in previous training, but these omissions are not very significant in DP students.

The medical school is very happy to admit DP students as long as they fulfill the admission requirements of two higher level science subjects, one of which must be chemistry, and the other a "serious subject" at higher level. If biology is not taken at higher level it must be taken at GCSE or equivalent.

Dr Hampshere expressed satisfaction with DP students in his departments. He had consulted failure and low-performance lists and noted the absence of DP students from such lists. He felt they had a good background for university studies and was enthusiastic about the form of the education they had received. He commented on the good language background of the students that suited them well for combined studies with a language element.

All spoke of the good study skills of the DP students, and that this placed them in a good position for university study. Dr Henshaw expressed some concern that the DP might be a problem for students of more modest ability. The diverse demands of the DP curriculum might lead to underperformance and even failure to gain university admission.

Generally there was no requirement for the CAS component and the university would be reluctant to refuse entry to a good academic student who had failed to complete this element of the DP.

Name of institution:	The University of Manchester
Department:	Admissions, physics, medicine, arts/combined studies
Interviewed respondent(s):	Dr J Henshaw, Head of recruitment and admissions Ms L Mckean, Recruitment and admissions Ms L Harding, Medical admissions Dr F Loebinger, physics Dr J Hampshere, arts/combined studies
Date:	14 February 2003

One interesting comment related to a small number of applicants with mixed DP/A-level qualifications. It could only be possible for this to happen to schools in transition from A-level to the DP and is not normal practice for fully authorized IB schools.

Queen's University of Belfast

Mr Wisener has had a long experience of dealing with the admission of DP graduates. DP students have entered various faculties and have done well. In recent times most emphasis has been on entries to medicine and some to engineering. Medical faculty representatives have described their DP entries as "good".

From his own personal experience of dealing with DP applicants Mr Wisener feels that the depth, breadth and additional requirements of the extended essay, theory of knowledge and CAS achieve the aims of developing critical thinking, communication skills, self-management and motivation. In his view the qualification is unique in doing so. (He feels that neither traditional A-levels nor Curriculum 2000 achieve as much and the latter is not achieving the government's aim of introducing some breadth.) He also believes that there has been an upward drift in A-level grades (particularly since the introduction of Curriculum 2000) that does not appear to have happened with the DP qualification. The consequence of this is that the DP is now more helpful in selection decisions as it distinguishes between good candidates.

Over the years there have been few, if any, problems with DP-prepared undergraduates and they do appear to be morerounded students. The difference between them and others can be detected and this may be attributed to the fact that they have already had experience of handling a diverse programme of study.

Mr Wisener did feel that, because of the rigour of the DP, less-able students were likely to be better served by the Alevel system.

Name of institution:	Queen's University of Belfast
Department:	Admissions
Interviewed respondent(s):	Mr SM Wisener, Admissions officer
Date:	23 January 2003

University of Sussex

Dr Kay referred to an earlier study of entries to biological sciences with DP qualifications that found that, in a standard knowledge test, DP students performed as well as A-level entries. This was an indicator that DP preparation for university was equivalent in value and that the discussion on depth/rigour did not indicate any problems for DP students. Other figures on performance indicated more confidence in DP entrants who had higher points totals on entry. The admission requirements for DP students were a little higher than those for A-level students.

Mr Evans commented that all departments were happy with their DP entrants and this was particularly the case in the physics department.

The breadth of the DP suited the style of study at the University of Sussex, which requires science students to undertake some courses in contrasting disciplines. The ethos of interdisciplinarity is a feature of the university and DPprepared students match this requirement ideally.

Skills gained in the broad Diploma Programme are seen as appropriate for university studies. The national key skills programme is not formally used in admissions processing but may be helpful in making decisions between otherwise equally qualified candidates. The university sees any attempt at broadening to be advantageous.

The UCAS tariff scheme is used partially but only in addition to specific subject grade requirements. Dr Kay emphasized that, should the DP join this scheme, then careful, accurate and appropriate translation of DP qualifications should be an absolute priority.

Points gained by students in theory of knowledge and the extended essay are not included in "points total" admission offers, although these may be used in assessment of individual cases. An extended essay in an appropriate subject related to the degree course may also be helpful. Medicine and engineering look at points totals coupled with specific grade requirements in appropriate subjects (sciences, mathematics). Dr Kay pointed out that school predictions for the performance of DP students were much more accurate than predictions made for A-level candidates.

Name of institution:	University of Sussex
Department:	Admissions, biological sciences and medicine
Interviewed respondent(s):	Dr J Kay, biochemistry and medicine Mr R Evans, Admissions officer
Date:	21 February 2003

CAS only plays a part in the UCAS personal statement or school reference, but it is seen as a record of real achievement that can be substantiated. Service commitment is seen as particularly attractive for medical admission. It is felt that CAS together with the broad programme prepares students well for participation in the tutorial system adopted by the university. Diploma Programme students are particularly well rounded and good at getting involved.

University of Wales, Aberystwyth

The university does not have a formal tracking of students entering with different qualifications. The UCAS tariff system is used for admission purposes and is useful to admissions staff. The numbers of students entering with DP qualifications is small and mainly concentrated in the science subject areas. These students do however stand out as good students, but there is no clear view as to whether this is due to the curriculum or to the innate quality of the individual students.

Students entering the university do so with so many different qualifications and it is accepted that the first year is seen as being one in which some "coming together" is needed. Against this background the depth of the DP higher level subjects, as a qualification, is not seen as a problem. Informal "tracking" indicates that DP students rarely emerge as problems.

Dr Harries reported that the biology department had found the few DP students they had to be well motivated with few academic difficulties. The depth of their preparation was not a problem.

The compulsory breadth of the DP was viewed as a problem for schools and it was the experience at Aberystwyth that modularity, which encouraged breadth, was rarely used for that purpose by students. It was Dr Harries' personal view that breadth seemed to be a way to ensure flexibility in the ongoing studies and career of the students. At the university itself more and more courses are broader or have combined programmes and the DP would seem to be an ideal preparation for such programmes.

There was no particular view on the extended essay or theory of knowledge.

Name of institution:	University of Wales, Aberystwyth
Department:	Sciences
Interviewed respondent(s):	Professor J Barrett, Pro-vice- chancellor Dr JH Harries, Dean of science
Date:	31 January 2003 7 February 2003

The university has many students from Scotland and from the Irish republic, both groups having had broader preparatory pre-university curriculums, and are therefore in some ways comparable to DP students. They were seen as posing few problems and to be good students.

Dr Harries wondered whether the DP would be more attractive to female students than to males.

University of Wales College of Medicine

Dr Winterburn carries out a tracking of students who have entered the university with different qualifications, including the DP. He finds that DP students adjust well to the courses and have a very low risk of non-completion. It is normal for these students to end up in the top half of the graduating students. He considers the DP to be a sound foundation allowing students to "blossom" and to have personality, character and motivation.

He is satisfied that the higher level science subjects prepare students well for medical studies and the stable, constant standard of the curriculum and examinations is appreciated. The College of Medicine has relaxed its policy of asking for three higher level sciences and likes the breadth and humanity brought by two sciences and a third rigorous subject in another discipline.

The broad IB structure is helpful in giving students communicative skills and numerical skills, both seen as vital in the training of medical professionals. Both these areas are a matter of concern to the university and the compulsory inclusion of these in the DP is a significant benefit. Appropriate skills are as important as knowledge and the Curriculum 2000 innovations on this front are also appreciated, although many schools and colleges are not able to deliver them in the form of the key skills element. Prospective applicants to the university are made aware of the importance of the skills they will need. Dr Winterburn feels that the DP is going a long way toward providing these and also the study skills necessary for advanced study.

Theory of knowledge, extended essay and CAS meet the needs of his departments, and CAS is appreciated as it helps to develop social awareness and an interest in others; vital elements in the medical profession. He felt that experienced DP schools had some advantage in giving their students these experiences because of the networks of opportunity and resources they could provide.

Name of institution:	University of Wales College of Medicine
Department:	Medicine and biomedical sciences
Interviewed respondent(s):	Dr PJ Winterburn, Medical sub- dean
Date:	31 January 2003

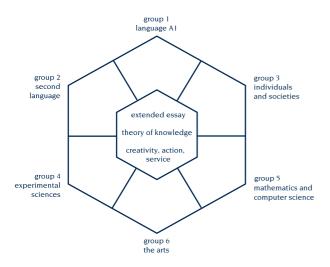
He feels that DP students have got "get up and go" but asked if this could be attributed to their personalities as much as to their IB preparation. However, he also noted that as university applicants their personal statements are full of activities that, when questioned, they actually do.

Appendix 6

The International Baccalaureate Diploma Programme

The International Baccalaureate Diploma Programme is a rigorous pre-university course of studies, leading to examinations, that meets the needs of highly motivated secondary school students between the ages of 16 and 19 years. Designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national education systems, the Diploma Programme model is based on the pattern of no single country but incorporates the best elements of many. The Diploma Programme is available in English, French and Spanish.

The curriculum is displayed in the shape of a hexagon with six academic areas surrounding the core. Subjects are studied concurrently and students are exposed to the two great traditions of learning: the humanities and the sciences.



Diploma Programme candidates are required to select one subject from each of subject groups 1 to 5, and the sixth subject can be selected from group 6 or be an additional subject from groups 1 to 5. At least three and not more than four subjects are taken at higher level (HL), the others at standard level (SL). Higher level courses represent 240 teaching hours; SL courses cover 150 hours. By arranging

work in this fashion, students are able to explore some subjects in depth and some more broadly over the two-year period; this is a deliberate compromise between the early specialization preferred in some national systems and the breadth found in others.

Distribution requirements ensure that the science-orientated student is challenged to learn a foreign language and that the natural linguist becomes familiar with science laboratory procedures. While overall balance is maintained, flexibility in choosing higher level concentrations allows the student to pursue areas of personal interest and to meet special requirements for university entrance.

Successful Diploma Programme candidates meet three requirements in addition to the six subjects. The interdisciplinary theory of knowledge (TOK) course is designed to develop a coherent approach to learning which transcends and unifies the academic areas and encourages appreciation of other cultural perspectives. The extended essay of some 4,000 words offers the opportunity to investigate a topic of special interest and acquaints students with the independent research and writing skills expected at university. Participation in the creativity, action, service (CAS) requirement encourages students to be involved in creative pursuits, physical activities, and service projects in the local, national and international contexts.