



# IB Diploma Programme: A strong predictor of success in university

Recent research on the performance of students in the IB Diploma Programme

By 2014, more than 1 million International Baccalaureate (IB) students will have participated in the IB Diploma Programme, and more than 120,000 Diploma Programme students will be entering university each year. IB students represent a broad range of nationalities from nearly 140 countries and reflect diverse experiences and perspectives, which they apply to their learning in the Diploma Programme. These experiences, in combination with the emphasis on international-mindedness and academic rigour of the Diploma Programme, provide students with a unique set of skills, attitudes and perspectives for success in university and life in the 21st century.

#### **Academic strength of students and IB World Schools**

Taking into account extensive research and analysis of the IB Diploma Programme and IB students in higher education, the highest score on the diploma is equivalent to 720 points on the United Kingdom's (UK) Universities & College Admissions Service (UCAS) tariff. In a separate analysis, UCAS found that over 70% of IB students gain offers for entry to higher education, and the vast majority of students attend Russell Group universities.

These findings are complemented by other studies that support the rigour and strength of IB programmes as preparation for university.

#### Research confirms IB students are prepared for university

A study by the Education Policy Improvement Center (EPIC) confirmed that IB students have the knowledge and skills for success during their first year of university study. EPIC aligned the Knowledge and Skills for University Success, a set of standards endorsed by 28 leading research universities, with the standards of the IB Diploma Programme.

"The IB standards demonstrate a very high degree of alignment with the Knowledge and Skills for University Success (KSUS) standards in all subject areas. In addition, many of the individual IB standards are at a level more advanced than entry-level college courses."

David Conley and Terri Ward, Educational Policy Improvement Center, Eugene, Oregon, USA

#### EPIC's model of expectations for university

EPIC identified four main components for university preparedness.

**Key cognitive strategies** describe the ways of thinking that are necessary for university-level work.

Key content knowledge refers to the need for students to master writing skills, algebraic concepts, key foundational content and "big ideas" from core subjects in order to meet university expectations.

Academic behaviours consist largely of study skills and self-monitoring. Examples include time management, awareness of one's current level of mastery and the selection of learning strategies.

Contextual skills and awareness, or "campus knowledge", refers to the understanding of university admissions processes, university culture, tuition and financial aid and university-level academic expectations.

#### **EPIC findings**

The IB Diploma Programme is exceptionally strong in the areas of key cognitive strategies, problem solving, critical thinking, analysis, research and writing skills. Through the IB languages curriculum and the core components, including the extended essay and theory of knowledge, IB students develop the ability to interpret, analyse, think critically and present arguments. They learn to question and reflect on what they know. They also learn to research, write and present what they have learned.

The IB curriculum meets or exceeds the standards for key content knowledge. IB students, in many cases, go beyond what is required for success. According to findings from the study, mathematics and science standards are exceptionally strong with many standards going beyond what students are expected to know in their first year of university.

Through the preparation for the IB assessments and participation in the Diploma Programme, IB students also learn academic behaviours and contextual skills that allow them to adapt well to university courses and campus life. The IB Diploma Programme encourages the development of the attitudes and habits of mind that encourage emotional maturity, responsibility and interpersonal skills.



Recent studies on IB Diploma Programme graduates in university confirm that they perform well and have significantly higher grade point averages (GPAs) and higher graduation rates than students who did not complete the IB Diploma Programme. Scores on IB assessments are also a significant predictor of performance in university.

Approximately 65% of the students in the Diploma Programme are in state schools. Research also shows that, regardless of an IB student's background or socioeconomic status, they do exceptionally well at university and in most cases perform significantly better than their peers who did not participate in the IB Diploma Programme.

## Student performance measured by critical thinking, not rote memorization

IB assessments are curriculum-based. The depth and breadth of the programme provides students with exposure to an academically challenging curriculum that emphasizes the use of a variety of assessments, including an emphasis on written essays that reflect students' ability to write, think critically, look at issues from all sides and present arguments based on evidence to support their point of view. The IB assessment tasks evaluate students' ability to think and process what they know, rather than assessing rote learning skills.

"Curriculum-based achievement tests are the fairest and most effective assessments for college admissions and have important incentive or signaling effects for our K–12 schools as well: They help reinforce a rigorous academic curriculum and create better alignment of teaching, learning and assessment all along the pathway from high school to college."

**Richard C. Atkinson,** president emeritus, University of California, and **Saul Geiser,** University of California, Berkeley, Center for Studies in Higher Education, Reflections on a Century of College Admissions Tests, April 2009

#### Universities around the world say IB students are 'well prepared'

In a survey of 150 university faculty and admissions staff from the UK, the IB Diploma Programme was rated higher than other qualifications based on the breadth of the curriculum; development of critical thinking, time-management and communication skills; and motivation of the students.

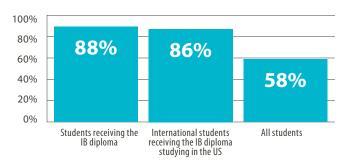
- 97% were satisfied the Diploma Programme prepares students for university.
- 96% favoured a broad curriculum of the type IB offers.
- 57% felt the Diploma Programme offers an advantage to students as preparation for higher education.

Similarly, a survey of 160 university faculty and admissions staff from Australia and New Zealand showed that 77% of respondents indicated that the IB Diploma Programme prepares students well for university.

#### Motivated and enthusiastic learners perform well and complete their degrees

According to data from the National Student Clearinghouse, a data source for students in postsecondary institutions in the United States (US), students who receive the IB diploma are 38% more likely to graduate from university with a degree than other students in higher-education institutions. Some 88% of IB diploma students received a bachelor's degree within six years or less, and international IB diploma students attending US schools showed similar graduation rates (86%) compared to a rate of 58% for all students. The strong performance of IB diploma students in university is consistent for IB students regardless of whether they attended state or private schools or the socio-economic status of the student.

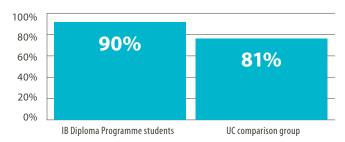
### Percentage of students graduating with a bachelor's degree within six years



Source: Integrated Postsecondary Education Data System (IPEDS) of National Center for Education Statistics, National Student Clearinghouse, IB analysis, based on data obtained for students taking exams in May 2000 and May 2001.

Within the University of California system from 2000–2002, IB diploma students showed higher graduation rates than a matched comparison group of students of similar backgrounds and achievement levels. They also had higher GPAs, both at the end of their first year and upon graduation. Furthermore, scores on the IB diploma were strong predictors of performance in university, and a 1-point increase in the IB exam score was associated with a corresponding increase in GPA of up to .38 points or approximately 10%.

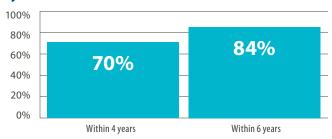
# Percentage of students graduating with a bachelor's degree in the University of California system within six years



Source: University of California Office of the President (UCOP) data, 2000–2002, IB analysis.

Analysis of IB students in Florida yielded similar results. The performance of IB Diploma Programme students on their IB assessments showed a positive correlation with their performance in university. Among 1,911 IB students entering into the State University System of Florida in 2000 and 2001, 70% earned a bachelor's degree within four years and 84% earned a bachelor's degree within six years. The grade point average of this group was 3.4 (out of a possible 4.0).

# Percentage of IB students graduating with a bachelor's degree from the State University System of Florida



Source: Integrated Postsecondary Education Data System (IPEDS) of National Center for Education Statistics, National Student Clearinghouse, IB analysis, based on data obtained for students taking exams in May 2000 and May 2001.

"IB students are terrific learners. They're inquisitive and don't just question what they're learning, but why."

Martha Piper, former president, University of British Columbia, Canada

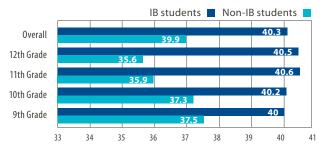


The University of British Columbia also conducted an extensive study of the performance of IB students during their first year. Based on the research, performance on the IB diploma, as measured by the score, was a strong predictor of success at the University of British Columbia, where students with scores in the 27–30 point range perform the same as straight-A students out of Canadian provinces' high school curriculum.

#### **IB students are more engaged learners**

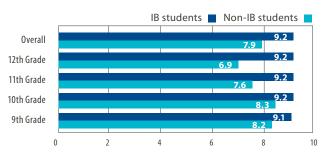
In 2009, the High School Survey of Student Engagement (HSSSE) by Indiana University's Center for Evaluation and Education Policy surveyed some 40,000 high school students across three broad dimensions of student engagement: academic, social/behavioural and emotional. Responding to questions about the amount of time spent studying, engagement in classroom discussions and the types of academic tasks they do inside and outside of the classroom, IB students showed significantly higher levels of academic engagement compared to students within the same school and to those in the larger survey population.

#### Levels of academic engagement



Source: High School Student Engagement Among IB and Non-IB Students in the United States: A Comparison Study, a report by International Baccalaureate, and analysis of 2009 HSSSE Results, Center for Evaluation and Education Policy, Indiana University.

#### Levels of social engagement



Source: High School Student Engagement Among IB and Non-IB Students in the United States: A Comparison Study, a report by International Baccalaureate, and analysis of 2009 HSSSE Results, Center for Evaluation and Education Policy, Indiana University.

Through the focus on challenging academic content and the key cognitive strategies in the Diploma Programme, IB diploma students are able to demonstrate the ability to think critically and to apply concepts across disciplines and subjects. In university courses, they show intellectual initiative, emotional maturity and self-management skills, qualities that lead them to stand out from their peers.

"We're looking for students who are engagers-- students who are maximizing opportunities in and out of the classroom. What's very unique about IB is that through its curriculum it allows students to be able to satisfy the requirements of the types of students that we're looking for."

Dr Kedra Ishop, vice provost and director of admissions, University of Texas at Austin, USA



For more information on these findings and the latest research on IB student performance, visit the research section on the IB website, http://www.ibo.org/research.

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