

## Factors influencing students to earn a bilingual diploma

Based on a research report prepared for the IB by:

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### Background

In addition to the standard diploma of the Diploma Programme (DP), the International Baccalaureate also offers a bilingual diploma (referred to in this study as BD), which includes additional language requirements. A student can earn a BD by meeting one or both of these criteria:

1. completion of two languages selected from group 1 (studies in language and literature), with a grade of 3 or higher in both
2. completion of one of the subjects from group 3 (individuals and societies) or group 4 (sciences) in a language other than the candidate's group 1 language, with a grade of 3 or higher.

The aims of this study were to examine the context of BD implementation in schools, to investigate academic outcomes for BD students and to explore perceptions and factors that encourage or discourage students from pursuing the BD in IB World Schools. This multi-method study included three phases: (1) a survey of IB World School staff, (2) analysis of student record and performance data and (3)

an in-depth study of BD implementation in a small number of schools.

### Research design

A total of 74 schools were sampled in the study from three country types, representing different percentages and frequencies of bilingual diplomas: (1) high percentage countries; (2) high percentage/high frequency countries and (3) high frequency/low percentage countries. In high percentage countries, a large share of all DP candidates are seeking the BD. In some countries, not only is there a high percentage of BD candidates, but there is also a high frequency, meaning there are large numbers of BD candidates. Finally, in the third group, there is a high frequency but a low percentage of BD candidates. In these countries, the number of students seeking the BD is high in comparison to other countries, but their overall share of the country's DP candidate population is low. A summary of the 12 countries sampled is provided in Table 1.

This study included three phases:

- **Phase 1.** Across the 74 schools in the sample, phase 1

	Bilingual diploma		Standard diploma		All diplomas	Country type
	Number of candidates	%	Number of candidates	%	Number of candidates	
Argentina	3,686	89%	464	11%	4150	High percentage
Dominican Republic	57	100%	0	0%	57	High percentage
Georgia	32	100%	0	0%	32	High percentage
Nicaragua	77	100%	0	0%	77	High percentage
Paraguay	129	100%	0	0%	129	High percentage
Greece	2,514	88%	350	12%	2,864	High percentage/high frequency
Lithuania	341	99%	2	1%	343	High percentage/high frequency
Poland	2,957	88%	407	12%	3,364	High percentage/high frequency
Sweden	3,975	85%	695	15%	4,670	High percentage/high frequency
Canada	2,478	15%	14,594	85%	17,072	Low percentage/high frequency
United Kingdom	3,908	20%	15,599	80%	19,507	Low percentage/high frequency
United States	2,193	3%	70,301	97%	72,494	Low percentage/high frequency

Source: Distribution of diploma earners by country, 2007–2012, (IBO, 2013a and 2013b)

*Table 1. Number and proportion of BD and standard diploma earners in the 12 countries included in the study, by country type*

involved surveying heads of schools, Diploma Programme coordinators and a sample of teachers. Representatives from 43 schools provided responses to the survey (n = 127). The staff survey asked respondents for their opinions about the factors that encouraged or dissuaded students from pursuing the BD, benefits of earning the BD, and aspects of implementation that were working well, in addition to challenges and changes schools could make to increase the number of students pursuing BDs.

- **Phase 2.** The IB provided the research team with a full set of anonymised data taken from the International Baccalaureate Information System (IBIS) for each of the DP students in 13 schools (n = 323). The researchers used this data to examine the academic performance of BD students in comparison with their standard diploma peers.
- **Phase 3.** In this phase, three case study schools were identified. Data collection involved a review of school-based documents, interviews with administrators and teachers, and a survey of students.

## Findings

### Staff and student surveys

#### *Enablers and challenges to schools' implementation of the BD*

Staff most frequently cited “the goals and priorities of school leadership” as a factor which encourages schools to provide language courses for the BD to a great (48.4%) or moderate (24.2%) extent (72.6% combined). Other factors that staff cited, to a great or moderate extent, included: the availability of qualified teaching staff (76.1%), parent interest (74.7%) and student interest (80.7%). Conversely, the top factors that restricted, to a great extent, the ability of schools to offer the BD included scheduling considerations (26.4%), followed by curriculum constraints (15.9%), lack of available qualified staff (13.8%) and lack of student interest (10.3%). The findings indicate that in order for students to be able to pursue the BD, schools must have the capacity and resources to provide appropriate course offerings that meet the criteria of the BD.

#### *Enablers and challenges to students pursuing the BD*

Students cited a number of factors that encouraged them, to a great or moderate extent, to pursue the BD. These included the desire to be multilingual (74.4%), future career options (73.3%), prior language learning experience (65.1%) and school promotion of the BD (61.9%). The primary factor that students identified as an impediment to pursuing the BD, to a great or moderate extent, was competing demands of other content coursework (55.7%).

Based on the student survey, two strong themes emerged in terms of enabling students to participate in the BD: qualified and well-prepared teachers and teacher support for IB students. As one student explained: “In my school, teachers show real dedication towards the IB students. Students are heard and there is always a good predisposition towards helping the student solve his/her problems and helping

him/her to do the best he/she can in every assessment of every subject.”

#### *Benefits of earning the bilingual diploma*

The staff survey asked, “In your opinion, which of the following benefits of earning the bilingual diploma are the most important?” Respondents were asked to rank the six factors listed as possible benefits from 1, most important, to 6, least important (See Table 2). Of 82 respondents who answered this question, the highest percentage (22.0%) ranked “motivates students to be multilingual” as the most important benefit of the BD. Two factors were tied, with 30.5% of respondents ranking them second in importance: “improves future career opportunities for students” and “improves future educational opportunities for students”.

Benefits	% rank 1	% rank 2	Mean rating	n
Motivates students to be multilingual	22.0%	6.1%	3.55	82
Offers a rigorous way to learn another languages	15.9%	8.5%	3.87	82
Enhances the quality of the overall school curriculum	12.2%	12.2%	3.84	82
Improves student academic performance	11.0%	12.2%	3.87	82
Improves future educational opportunities for students	18.3%	30.5%	2.94	82
Improves future career opportunities for students	20.7%	30.5%	2.94	82

*Table 2. Staff rankings of the most important benefits of earning the BD (table only shows top two rankings)*

Students largely echoed the factors highlighted by staff, particularly the BD’s potential for improving future educational and career opportunities. Students also cited personal growth and gaining understanding of other cultures as benefits of the BD. For example, as one student noted, the BD “increases understanding of other cultures—something that we truly need nowadays”. Similarly, several staff respondents highlighted the importance of getting to know or appreciate other cultures, in addition to the value of developing fluency in a second language, both of which help prepare students for an increasingly globalized world.

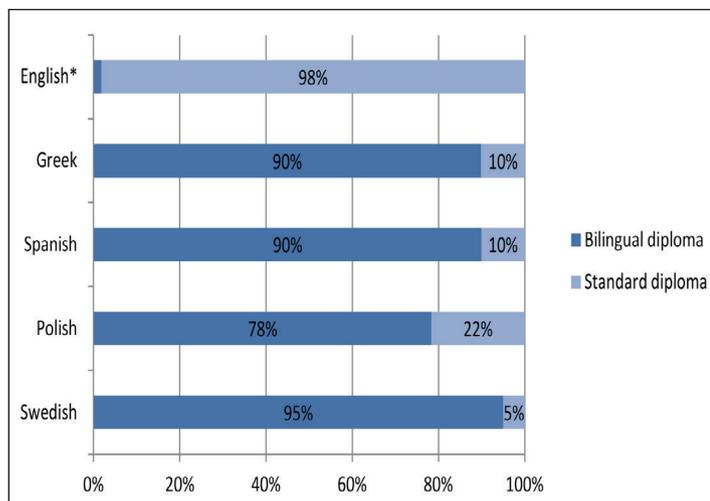
### Student record analysis

#### *Language backgrounds of BD and standard diploma students*

Researchers analysed data from IBIS, including a total of 1,911 student examination records from 323 individual candidates, representing each of the DP candidates in the 13 schools. The candidates were almost equally split between BD candidates (163 candidates) and standard diploma candidates (180 candidates).

Of the 23 languages spoken by the sample students, 5 languages (English, Greek, Spanish, Polish and Swedish)

accounted for 88% of the sample set. Language backgrounds were strikingly different between BD and standard diploma candidates. Of the 108 English mother tongue speakers in the data set, only 2 were BD candidates. Native speakers of the other four languages, on the other hand, had substantially higher percentages of BD candidates (see Figure 1).



\*The proportion of English speakers in the sample seeking the bilingual diploma is 2%.

**Figure 1. Proportions of BD and standard diploma candidates by language background**

While the majority of English speakers earn standard diplomas, for each of the other national languages present in the sample, the majority are bilingual diploma earners. This data suggests that, in cases where the native language is not English, students are more likely to pursue a bilingual diploma.

### Academic performance of BD and standard diploma students

In this section, 1,911 IBIS examination records were investigated for DP subjects in groups 1 to 6. Average scores were calculated at the student level and at the subject level. In both cases, there was a small difference in average scores between the standard diploma and BD students.<sup>1</sup> For example, the average individual student score for the BD (163 candidates) was 5.30, while the average individual student score for the standard diploma (160 candidates) was 5.13. Further, an investigation of examination result by subject area showed that there was a small difference in academic performance between the BD and the standard diploma candidates. BD candidates slightly outscored standard diploma candidates in group 2 (language acquisition), group 3 (individuals and societies), group 4 (sciences) and group 5 (mathematics). Standard diploma candidates, conversely, had a slight edge in group 1 (language and literature) and group 6 (the arts). In terms of practical significance, the data from this portion of the study indicates that bilingualism does not hinder student performance. Rather BD students are performing on par with their standard diploma peers, and enjoy the added benefit of enhanced language learning.

<sup>1</sup> Examinations are scored on a scale of 1–7.

## Case study schools

The final phase of the study examined implementation of the BD in greater depth through case studies in three schools. Case analyses, which included 5 interviews with 4 administrators and 10 teachers, a survey of 59 students, and a review of school-based language policy documents, were carried out in 3 schools to delve further into the results from the previous phases. Table 3 provides some additional information about the case study schools.

School	Region	Country profile	% of bilingual diploma students
School A	Americas (IBA)	High percentage country	100%
School B	Americas (IBA)	High percentage country	100%
School C	Africa, Europe and Middle East (IBAEM)	High percentage/high frequency country	50%

**Table 3. Case study schools**

### Factors which could encourage more students to pursue the BD

Educators and students made the following recommendations for strategies that could encourage more students to pursue the BD:

- Educators from School C indicated that it would be helpful if BD students received a certification of the level of proficiency they had achieved in the second language. This, they suggested, would help graduates pursuing job opportunities to stand out to employers. As one administrator stated, "I believe that if the bilingual diploma could be recognized as an official certificate of proficiency in the two languages by different countries worldwide, it could act as an incentive for more students to pursue the BD."
- Students made a number of suggestions for steps schools could take to increase the number of students pursuing the BD. These included: offering more languages, improving teacher training and qualifications, improving teacher understanding of DP requirements and providing better student preparation for the IB, such as providing information about the DP and BD in grades 9 and 10 for parents and students.

### Factors which discourage students from pursuing the BD

Educators suggested that the following factors tend to discourage students from pursuing the BD:

- Teachers and administrators suggested that the DP workload might be a factor hindering students from pursuing the BD. An administrator at School A confirmed, "The IB course load is equally demanding whether you

get the standard diploma or BD. The regular course load at the school is lighter. There is a longer timeframe, the exams may cover less information, and there are fewer projects. The standard high school diploma has about one third less of everything required of the IB DP. The IB programme is more demanding.”

- In some countries, including each of the countries of the three case study schools, there are additional national course requirements that are required by the respective ministries of education. For example, one head of school explained, “In some countries, students must only take the six core IB courses in order to earn a high school diploma. In our country, however, students might have to take the IB physics course as well as a nationally required course in electricity.” Therefore, national education policies can affect students’ decisions about whether or not to participate in the BD. All three case schools were working closely with their respective ministries of education to have some courses waived or to have the requirements merged with current IB requirements.

### ***Recommendations from educators for improving the BD***

When asked what additional support would be beneficial from the IB to improve the BD, educators responded with the following recommendations:

- Schools recommended that the IB continue to provide information to universities and employers about the value of the IB Diploma Programme, including both the standard diploma and the BD. They further felt that the IB should encourage universities to recognize and give credit for acquiring proficiency in another language through the BD.
- Improvements to professional development offerings from the IB emerged as a second theme, particularly regarding internal exam grading, clarifying rubrics and providing examiner explanations for grade moderations. Several teachers in Schools B and C mentioned that their grading criteria for certain IB courses were too vague, open-ended and general, which makes it difficult for students to understand expectations. Additionally, schools encouraged the IB to foster collaboration between IB World Schools that are geographically near one another and to provide training to teachers in multiple languages. As one teacher suggested, “Is it possible to offer face-to-face training in a language other than English in the United States?” This would be closer and less costly for educators in some countries.
- Schools raised programme requirements as a third area in which they felt the IB could make improvements. Some respondents felt that the IB should investigate the stress that DP students experience as they attempt to complete such rigorous requirements in a short timeframe. Lastly, schools requested consideration of IB exams to ensure that they are manageable for students.

## **Conclusions**

The strongest conclusion that emerges from this study is that students who are already bilingual, with prior academic knowledge of two or more languages, are more likely to pursue the bilingual diploma. IB students in countries where the most commonly spoken language is not English typically value acquiring English as an international language. In these settings, there are more often school supports and qualified staff to help students to pursue high-level academic learning in a second language. In contrast, the findings suggest that in countries where English is the mother tongue, students are less likely to pursue the BD.

Interestingly, case study schools did not find implementation of the BD to be more difficult than the standard diploma, and the findings do not indicate that students were dissuaded from pursuing the BD because of its perceived difficulty. Data on student performance, furthermore, indicates small differences between the performance of BD and standard diploma candidates.

## **References**

International Baccalaureate Organization (IBO). (2013a). *The IB Diploma Programme statistical bulletin, May 2013 examination session*. The Hague, The Netherlands. Retrieved 2 May 2014 from <http://www.ibo.org/facts/statbulletin/dpstats/documents/2013-MayDPStatisticalBulletin.pdf>

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This summary was developed by the IB Research Department. A copy of the full report is available at <http://www.ibo.org/research>. For more information on this study or other IB research, please email [research@ibo.org](mailto:research@ibo.org).

To cite the full report, please use the following:

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