



FINAL REPORT

# IB Diploma Programme Study: Factors influencing students to earn a Bilingual Diploma

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## Executive Summary

The number of students pursuing the International Baccalaureate (IB) Diploma Programme (DP) continues to rise every year. Currently 2,519 schools in 142 countries are authorized to teach the Diploma Programme (IBO, 2014). In 2013, there were 127,284 candidates worldwide (IBO, 2013). The majority of the candidates are seeking the Standard Diploma (SD). In 2012, 68% of the diplomas awarded were Standard while 32% were Bilingual (IBO 2013b, 2012b). The IB Organization is interested in exploring the context of Bilingual Diploma (BD) implementation in schools, so they commissioned The George Washington University Center for Equity and Excellence in Education (GW-CEEE) to study schools in twelve countries with high and low percentages of BDs awarded.

Seven research questions were addressed in this study:

1. What factors and reasons contribute to school decisions regarding language course offerings?
2. What challenges do IB schools encounter in providing opportunities (i.e., a variety of language courses) for students to earn BDs?
3. What are the perceived enablers of high proportions of BD awarded in i) particular countries, and ii) in particular schools?
4. How do characteristics (i.e., official language(s), national curriculum requirements, policies on language education) of particular countries relate to the awarding of BD in these countries?
5. What are the perceptions of DP students, language teachers, school leaders, IB coordinators, parents regarding the value of studying for/ earning a BD?
6. What is the language background (i.e., native language, length of study of a second language, context of exposure to multiple languages) of the students pursuing BDs bilingual diplomas?
7. How do BD earners compare with standard diploma (SD) earners on various measures of academic performance (i.e., DP total points, subject grades, high school GPA, college readiness test such as SAT, ACT)?

Schools included in the study were selected from three representative country types. In some countries, a large share of all IBDP candidates are seeking the Bilingual Diploma—these are *high percentage* countries. In some countries, not only are there *high percentages* of BD candidates, but there are also *high frequencies*—in other words, there are large numbers of BD candidates. Finally, in the third group, there are *high frequency but low percentages* 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 IBDP candidate population is small. To address the seven research questions GW-CEEE researchers used a three-phase approach that yields findings with both breadth and depth. Phase I: survey of staff; Phase II: analysis of student record data provided by schools from which survey responses were received; and Phase

III: in-depth study of a small number of schools, a subset of the schools that provided student record data in Phase II.

Phase I involved surveying Heads of School, Diploma Coordinators and a sample of teachers across 74 schools in the sample. In Phase II, from the responding schools, researchers analyzed 1,911 student examination records from 323 individual candidates, located in a sample of 13 schools across 9 countries. Student performance data were drawn from the International Baccalaureate Information System (IBIS) and solicited from participating schools. In Phase III, researchers explored BD implementation in three Diploma Programme schools through a review of school-based documents, interviews of administrators and teachers, and a student survey. Survey and student record data collected in Phase II informed both the selection of the schools and the topics to be addressed during interviews. Interviews were conducted through a Web-based platform with the use of video.

This sequential multiple methods study examined IB students' perceptions and motivation for pursuing the Bilingual Diploma as well as factors that encourage or discourage them from pursuing the BD. This report provides a detailed outline of the iterative study methodologies, followed by results from (i) surveys of staff in IB Diploma Programmes; (ii) student records from a subset of the surveyed schools; and (iii) detailed case analyses of three schools that included staff interview and student survey data.

The study findings suggest that students who are 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 are in situations where there is value in acquiring English as an international language; in these settings, school resources and qualified staff are available to support students to pursue high level academic learning in a second language. In contrast, the findings suggest that factors such as English as a mother tongue and lack of prior language learning in countries where English is widely spoken means that students are less likely to pursue the BD. IBIS data converge on similar interpretations, indicating that students who already speak an international language (English) are far less likely to seek an additional language qualification, and that in our sample, at least, BD candidates come from language backgrounds other than English. Findings do not indicate that students are dissuaded from pursuing the BD because of its perceived difficulty. Data on student performance, furthermore, indicate few differences between the performance of BD and SD candidates; the differences which exist are primarily due to course-taking patterns in the language courses in groups 1 and 2, but are washed out when viewed across the entire set of subject courses 1-6. Future research should focus on bilingual schooling and the proportion of students earning a BD across the high frequency/low percentage countries such as the United States, United Kingdom and Canada. Similarly, further analysis of the IBIS data could provide additional information about the IBDP choices of linguistic minority students who are being educated in English dominant countries.

## **Introduction**

The International Baccalaureate (IB) is a non-profit educational foundation that was founded in Geneva, Switzerland in 1968 in order to offer a high quality international education and a pre-university curriculum to students worldwide. The IB offers four academically challenging programs of education in 3,786 schools in 147 countries for students aged 3-19 years old to prepare young people to be critical thinking global citizens (IB, 2014a).

## **Background**

### **IB Diploma Programme**

The IB Diploma Programme (DP) is a two year academically challenging program intended for students 16-19 years old. The DP provides a rigorous curriculum with internal assessments and final examinations that prepares students with the skills necessary to be successful in college, career(s) and beyond (IBO, 2009). There were 127,284 IBDP candidates worldwide in 2013. The majority of candidates (69%) were in the IB Americas (IBA) region, while the other 21% and 10% came from the IB Africa, Europe, Middle East (IBAEM) and the IB Asia-Pacific (IBAP) regions respectively. More than two-thirds of the candidates were located in the - three countries with the greatest number of DP candidates, the United States with 70,568 (55%), Canada with 10,249 (8%) and the United Kingdom with 4,590 (4%) candidates (IBO, 2013).

### ***Curriculum and Assessment***

DP students must successfully complete a total of six courses in order to earn either a Standard Diploma or a Bilingual Diploma. Students choose one subject from each of five disciplines to ensure breadth of experience in five subject areas, namely, group 1: Studies in language and literature, group 2: Language acquisition, group 3: Individuals and societies, group 4: Experimental Sciences, and group 5: Mathematics. The sixth subject may be an arts subject or the student may choose another subject from the group of five disciplines. Students take group 1 courses in a language or languages in which they already have some academic proficiency. Group 2 courses are for languages in which students wish to gain greater proficiency. Groups 3-6 are examined in the IBDP working languages English, French, and Spanish (IBO, 2011a). Grades are awarded from 1 (lowest) to 7 (highest).

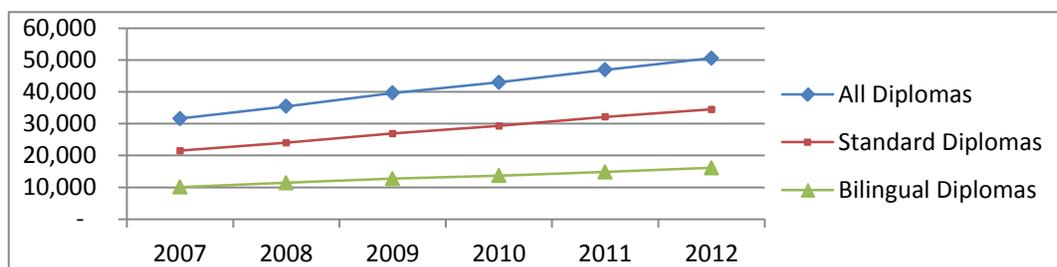
In addition to successful completion of the six subjects, DP students must complete three core requirements that provide a student-driven opportunity to apply knowledge and understanding gained through the program. An extended essay of 4,000 words allows students to investigate a special topic of their choice related to one of the six subject areas; a theory of knowledge (TOK) course requires written and oral presentations enabling students to challenge their personal and

ideological assumptions; and a community action service (CAS) project facilitates student reflection and provides evidence of learning outcomes (IB, 2014b). Students can be awarded three additional points for their combined results on TOK and the extended essay. Therefore, the maximum that a DP student can be awarded is 45 points. The diploma is awarded to students who earn at least 24 points, subject to certain minimum levels of performance across the whole program and satisfactory participation in CAS. The completion of these requirements results in the award of a *Standard Diploma* (SD). In addition to the Standard Diploma, IB also offers a *Bilingual Diploma* (BD) which adds additional requirements.

While the criteria for the Bilingual Diploma have changed slightly in the last year, the key requirement is that students study in two languages. Effective in 2013, a student can earn a Bilingual Diploma by meeting one or both of two criteria: Completion of two languages selected from group 1, *Studies in language and literature* with a grade of 3 or higher in both; or completion of one of the subjects from group 3, *Individuals and societies* or group 4, *Experimental sciences* in a language that is not the same as the candidate's nominated group 1 language, with a grade of 3 or higher.

### ***Diplomas***

There are 2,519 schools in 142 countries which are currently authorized to teach the Diploma Programme (IBO, 2014). Although the proportion of Bilingual Diplomas has remained steady over the past six years (standing at 32% of all diplomas awarded for each year 2007-12), the number of BD awardees has increased. In 2007, IB awarded 31,609 diplomas. Of these, 10,087 (32%) were Bilingual Diplomas and 21,522 (68%) were Standard Diplomas. In 2012, IB awarded 16,106 BDs and 34,491 SDs, for a total of 50,597 diplomas. There have been parallel increases in the numbers of candidates across the six years, with the total increase between 2007 and 2012 standing at 60% for both the SD and the BD (IBO 2013b, 2012b, 2011c). An illustration of these trends is provided in Figure 1.



**Figure 1: Increase in the number of Diplomas, Standard Diplomas, and Bilingual Diplomas awarded, 2007-2012**

This study explored the context of Bilingual Diploma (BD) implementation in schools and examined the academic outcomes of studying toward and/or earning a Bilingual Diploma. This

report begins with a discussion of the purpose of the study and the research questions guiding the investigation. This section includes a detailed description of the data collected and methodology used to examine the contexts of BD implementation. Next the findings include: (1) data from a survey of staff working in DP schools; (2) an analysis of student linguistic background and academic data from International Baccalaureate Information System records from participating schools, including a comparison of the academic performance of BD versus SD candidates; (3) in-depth examination of BD implementation in three case schools. These analyses provide insight into the on-the-ground workings of the BD.

## **Purpose and Methodology**

### **Purpose of the Study and Research Questions**

The purposes of the study were (1) to examine the context of Bilingual Diploma implementation in schools, (2) to identify the academic outcomes for students studying to earn a BD, and (3) to identify students' perceptions and factors that encourage or discourage students from pursuing the BD in IB schools. Guiding the study were seven research questions:

1. What factors and reasons contribute to school decisions regarding language course offerings?
2. What challenges do IB schools encounter in providing opportunities (i.e., a variety of language courses) for students to earn BDs?
3. What are the perceived enablers of high proportions of BD awarded in i) particular countries, and ii) in particular schools?
4. How do characteristics (i.e., official language(s), national curriculum requirements, and policies on language education) of particular countries relate to the awarding of BD in these countries?
5. What are the perceptions of DP students, language teachers, school leaders, IB coordinators, parents regarding the value of studying for/ earning a BD?
6. What is the language background (i.e., native language, length of study of a second language, context of exposure to multiple languages) of the students pursuing BDs?
7. How do BD earners compare with standard diploma (SD) earners on various measures of academic performance (i.e., DP total points, subject grades, high school GPA, college readiness test such as SAT, ACT)?

The study was carried out in three phases to allow data collected during each phase to inform the other phases. Study questions were considered independently and in groups as appropriate.

## Methodology

A sequential mixed methods approach was used to examine the data, an approach that provides more confidence in the results than a single method (Greene, 2007; Creswell & Plano Clark, 2007). Data needed to examine program goals, objectives, and performance measures were collected in multiple ways from multiple sources and were examined qualitatively and quantitatively, as appropriate. The sequential mixed methods design allowed data collected in each phase of the study to inform subsequent phases of data collection and analysis, providing opportunities to explore and expand on each iteration of findings (Teddlie & Tashakkori, 2003).

A total of 74 schools for the study were sampled from three representative country types – (1) high percentage; (2) high percentage/ high frequency, (3) high frequency/ low percentages. *High percentage* countries are where a large share of all IBDP candidates are seeking the Bilingual Diploma. In some countries, not only are there *high percentages* of BD candidates, but there is also *high frequency* —in other words, there are large numbers of BD candidates. Finally, in the third group, there are *high frequency but low percentages* 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 IBDP candidate population is low. A summary of the countries sampled is provided in Table 1.

**Table 1: Number and proportion of Bilingual Diploma and Standard Diploma earners in the twelve countries included in the study, by country type, 2007-2012**

	Bilingual Diploma		Standard Diploma		All Diplomas	Country type
	Number of candidates	Percent	Number of candidates	Percent	Number of candidates	
All countries						
Argentina	3,686	88.80%	464	11.20%	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	87.80%	350	12.20%	2,864	High percentage/high frequency
Lithuania	341	99.40%	2	0.60%	343	High percentage/high frequency
Poland	2,957	87.90%	407	12.10%	3,364	High percentage/high frequency
Sweden	3,975	85.10%	695	14.90%	4,670	High percentage/high frequency
Canada	2,478	14.50%	14,594	85.50%	17,072	Low percentage/high frequency
United Kingdom	3,908	20.00%	15,599	80.00%	19,507	Low percentage/high frequency
United States	2,193	3.00%	70,301	97.00%	72,494	Low percentage/high frequency

Source: Distribution of Diploma earners by country, 2007-2012, (IBO, 2013).

Data collection and analysis was an iterative process throughout the project. Procedures at each phase are described below. Initially, researchers examined the Diploma Programme by reviewing and analyzing IB documents, policies and research. The initial document review provided background information and contextual understanding of the program in the countries in which IB is being implemented. Sample reports reviewed included:

- *International Baccalaureate's Bilingual Diploma: Global trends and predictors of attainment* (IBO, 2014);
- *Diploma Programme assessment: Principles and practice* (IBO, 2004);
- *Language and learning in IB programmes* (IBO, 2011a);
- *The Diploma Programme from principles to practice* (IBO, 2009); and
- *Handbook of procedures for the Diploma Programme 2012* (IBO, 2012a).

Subsequently, documents including policy documents were collected from schools and examined to inform understanding of the survey and interview data findings.

During Phase I a survey of DP staff was conducted. Phase II involved analysis of student data provided by schools which responded to the survey, supplemented with IBIS data from those schools. Phase III involved in-depth study of case schools (a subset of the schools that provided student record data in Phase I).

Across the 74 schools in the sample, Phase I involved surveying Heads of School, Diploma Coordinators and a sample of teachers (for whom emails were provided by Diploma Coordinators). Representatives from 43 schools provided responses to the survey. Each of these 43 schools were asked to participate in Phase II by providing a set of student records for Phase II analysis. There were 13 schools which responded to this request and were included in Phase II. In addition to the student records provided by these 13 schools, for each of the schools, the research team were provided by IB with the full set of de-identified IBIS data for the IBDP students in that school. Survey and student record data collected in Phases I and II informed both the selection of the schools and the topics to be addressed in Phase III. For Phase III, three case schools were identified. Phase III data collections involved a review of school-based documents, interviews of administrators and teachers, and a survey of students. Interviews were conducted through a Web-based platform with the use of video; the survey was administered via SurveyMonkey.

Table 2 provides an overview of the numbers and types of schools included at each phase of the study.

Table 2: Numbers of schools which offer the IBDP, number sampled, and number included in study

Country	Country Type	Offer IBDP	Included in Sample	Phase I: Responded to Survey	Phase II: Provided Student Record Data	Phase III: Case Schools
Argentina	High %	47	16	6	1	
Canada	High freq., low %	154	7	3	0	
Dominican Republic	High %	1	1	1	1	
Georgia	High %	2	2	2	0	
Greece	High freq., high %	13	7	5	2	
Lithuania	High freq., high %	5	2	1	0	
Nicaragua	High %	2	2	2	1	
Paraguay	High %	2	1	1	1	
Poland	High freq., high %	36	7	5	1	
Sweden	High freq., high %	33	6	4	1	
United Kingdom	High freq., low %	148	10	4	2	
United States	High freq., low %	823	14	9	3	
<b>Total</b>		<b>1,266</b>	<b>74</b>	<b>43</b>	<b>13</b>	<b>3*</b>

\*To preserve the anonymity of respondents, information about the country in which case schools are located is not shown.

Phase I: Staff Survey. There were 74 schools selected to participate in the first phase. The staff survey (see the Appendix) was administered to Heads of School and Diploma Coordinators in November 2013. The 18-question survey, administered electronically via SurveyMonkey, contained a combination of rating, ranking and open-ended questions. Following the survey of administrators that took place from late November 2013 to early January 2014, a survey of a sample of IB teachers (for whom emails were provided by Diploma Coordinators) across the six DP subject areas at each school was conducted in late January, 2014 through early March, 2014, using a modified version of the administrators' survey. The survey data addressed research questions 1 through 5 involving perceptions of staff about aspects of the Bilingual Diploma, including supports and challenges. 43 schools responded to the Phase I survey and were therefore selected to participate in further phases of the study.

Phase II: Student Records. In early March 2014 researchers requested school-based records for the 2013 bilingual diploma (BD) and standard diploma (SD) earners from the 43 schools which had provided responses to the survey in Phase I. Using student ID numbers provided by IB, 12 students were selected from each participating school based on their IB exam scores (four students each with high, average, and low scores). Data requested included course subject grades (if given in addition to IB exam scores), overall school grade point average (GPA), high school exit exam scores, college-readiness test scores such as the Scholastic Aptitude Test (SAT) or the

American College Testing (ACT), and language background including the number of years of language study. In addition, to supplement these data, GW-CEEE researchers requested de-identified student data for all IBDP students at these 13 schools from the International Baccalaureate Information System (IBIS), a data system maintained by the IB that contains student background information as well as academic data.

Phase III: Case Schools. Each of the 13 schools which responded to the Phase II request for information were considered for inclusion in Phase III. It was a priority to include high frequency and high frequency/high percentage schools. With the goal of finding three to five schools to serve as case schools, six schools were invited. Three declined or were unable to participate fully, yielding three case schools.

Within each school, school-based documents relating to the DP were reviewed. Researchers also conducted interviews with relevant stakeholders at each school, including Heads of School, Diploma Coordinators, and language and content teachers. Interviews were conducted individually with administrators and in a focus group format with teachers. Students were surveyed through the same online platform used for the staff surveys in late April to early May, 2014. Two additional schools were willing to participate in the student survey portion of the case analysis, but were unable to complete the interviews. The data from their student surveys were included in the analysis of the case schools, bringing the total of schools which participated in the student survey portion of Phase III to five. The school case analyses directly addressed research questions 1, 2, 3, and 5 about school-based factors in implementing the DP. In addition, data gathered from the schools supported findings for research questions 4, 6, and 7, each of which were addressed more explicitly by document and policy review and/or student record analysis.

## **Limitations**

The nature of the study, and particularly the iterative data collection methods, means that there are some limitations on the generalizability of the results. The initial sample of 74 schools was selected to represent countries identified by IB with different levels of Bilingual Diploma awards – high percentage, high percentage/high frequency, and high frequency/low percentage. It was not expected that results would be generalizable to those categories of country because of the population distribution among the categories and the necessary sampling. An important limitation of this particular sample is that the countries with low percentages but high frequencies of BD earners are all also countries in which English is an important national language (Canada, the UK, and the USA); while none of the countries in the remaining categories have English as a national language.

In subsequent phases of the study, the number of schools included in each phase was based on the response rates and willingness to participate of the schools contacted. Researchers were also careful of the time and effort requested of study participants—in particular, researchers restricted the number of students per school included in the student record requests so as not to impose an undue burden on school personnel, and not to dissuade them from participating in further study activities. While this may have led to greater numbers of schools participating in this phase of the study than may have otherwise, the small number of student records per school led to difficulties in comparing records both in and across schools.

Because of their level of cooperation up to that point, i.e., in the staff survey and student record phases of the study, approximately half of the schools that had provided student record data were asked to participate in the final, case analysis, phase of the study. Only three schools were able to be involved in all aspects of the case analysis.

These limitations mean that care must be taken in interpreting the results, and in generalizing the findings to the entire population of BD earners, BD earners compared with SD earners, or the IBDP more broadly.

## **Findings**

### **Phase I: Staff Survey**

The staff survey queried IB educators from the 12 countries with (1) high percentage; (2) high percentage/ high frequency, (3) high frequency/ low percentages about their perceptions of factors influencing schools and students to participate in IBDP. The staff survey was directed to Heads of School/Principals and Diploma Coordinators. Using a mixture of approximately 20 fixed-response rating, ranking, and open-ended questions the staff survey asked respondents for their opinions about the factors that encouraged or discouraged schools to provide language courses for students to pursue the Bilingual Diploma, the factors that encouraged or discouraged students to pursue the BD, benefits of earning the BD, as well as aspects working well in their schools, challenges, and changes their schools could make to increase the number of students pursuing BDs. (See the Appendix for the staff survey instrument.)

An invitation to participate in the survey was sent to both the Head of School and the Diploma Coordinator at each of the 74 schools in the sample. Within the invitation was a link to the survey instrument through the online platform SurveyMonkey. Within the instrument, each Diploma Coordinator was asked to “provide email addresses for at least one IB teacher per subject group in your school.” Eighteen Diploma Coordinators provided one to 13 email

addresses, for a total of 100 teacher email addresses. A few Diploma Coordinators were uncomfortable sending email addresses, but they agreed to forward our email invitation to some of their teachers. The staff survey instrument was adapted slightly (e.g., teachers were asked what subject they taught and were not asked for teacher email addresses), then sent to teachers for whom researchers had email addresses, again in the form of an emailed invitation that included a link to the survey instrument.

Survey data were analyzed in one of two ways. Quantitative data resulting from fixed response survey items were analyzed using simple descriptive statistics. Data were produced by SurveyMonkey and downloaded into Excel for analysis and reporting/presentation purposes.

Rating scale items yielded numbers and percentages of response by response option. Response options provided were "to a great extent," "to a moderate extent," "to a small extent," and "not at all." For ease of digesting/understanding results, the top two categories of response to each item were combined for an indication of support and the bottom two categories were combined for an indication of lack of support.

Ranking items produced two types of result, the number and percentage of respondents choosing each rank by item and an average (mean) rating for each item. Results were thus considered in two ways, the percentages of respondents ranking each item as 1, 2, 3 and so on, as well as the mean ranking of each item.

Open-ended items yield data which can explain how, why, or in what ways a particular observation is made or opinion is held. These responses are less easy to count or categorize but may be more revealing. For each fixed-response item, an open-ended follow-up question was asked of respondents, essentially asking for any answer or reason that had not been provided. These questions generated narrative responses ranging from one word to multiple sentences. All responses to each question were listed, and reviewed, and emergent themes and topics were noted. The lists of responses were then coded and categorized according to the theme or topic of the comments. In other words, categories were determined by the content of the responses themselves rather than being predetermined; specific themes are provided for each open-ended question below.

Table 3 shows the distribution of the 127 survey responses received. These data represented all 12 countries in the sample, and ranged from 2 to 30 responses per country. These responses represented a total of at least 43 schools (3 respondents did not identify their schools).

**Table 3: Responses to Staff Survey**

<b>Country</b>	<b>Response Percent</b>	<b>Response Count</b>
Argentina	11.0%	14
Canada	4.7%	6
Dominican Republic	3.9%	5
Georgia	4.7%	6
Greece	10.2%	13
Lithuania	3.1%	4
Nicaragua	4.7%	6
Paraguay	1.6%	2
Poland	10.2%	13
Sweden	11.8%	15
United Kingdom	10.2%	13
United States	23.6%	30
<b>Total Responses</b>		<b>127</b>

Researchers had intended to analyze survey responses by primary role of respondent, i.e., Head of School, Diploma Coordinator or IB teacher. Unfortunately, as shown in Table 4, fewer than three-fifths of the respondents (73, 57%) indicated their primary roles. About half of these 73 respondents who identified their roles indicated that they were IB teachers (29% of the total), 26 (20%) were Diploma Coordinators, and 10 (8%) were Heads of School/Principals. Because of the lack of role identification, researchers summarized all responses received rather than attempting to compare and contrast among incomplete groups and lose over 40% of the responses from that analysis.

**Table 4: Primary IB role of staff survey respondents**

<b>Response type</b>	<b>Number of respondents</b>	<b>Percentage of respondents</b>
Principal or Head of School	10	8%
IB Diploma Coordinator	26	20%
IB Teacher	37	29%
<b>Total respondents who indicated primary role</b>	<b>73</b>	<b>57%</b>
Other	16	13%
Did not respond	38	30%
<b>Total respondents with undetermined primary role</b>	<b>54</b>	<b>43%</b>
<b>Total</b>	<b>127</b>	<b>100%</b>

In terms of the number of years that each respondent had been associated with IB, about two-fifths (39.4%) of respondents were in their first to fifth year when they responded to the survey; slightly more than one-fifth (22.8%) were in their sixth to tenth year; slightly under one-fifth

(18.9%) were in their eleventh to fifteenth year, and the same proportion in their sixteenth year or more.

### ***Enablers and challenges to schools***

The survey posed two related questions about factors that encourage respondents' schools to provide language courses for students to pursue Bilingual Diplomas, and factors that prevent schools from doing so. Respondents were asked to rate parallel lists of factors in the two questions. Response options were "to a great extent," "to a moderate extent," "to a small extent," and "not at all." To understand results more easily, the top two categories of response to each item were combined for an indication of support and the bottom two categories were combined for an indication of lack of support.

Of 91 responses which addressed a list of seven factors that encourage a school to provide language courses, the factor cited "to a great extent" with the highest frequency was *goals and priorities of school leadership* (48.4%). Adding the 24.2% who responded "to a moderate extent" yields a total of 72.6% of respondents who deemed *goals and priorities of school leadership* a factor that encourages their school to provide language courses for students to pursue Bilingual Diplomas to a great or a moderate extent. Slightly behind in the ratings of "to a great extent," but higher when responses of "to a moderate extent" were included were *availability of qualified teaching staff* (47.7% "to a great extent" + 28.4% "to a moderate extent" = 76.1%); *parent interest* (47.1% "to a great extent" + 27.6% "to a moderate extent" = 74.7%); and *student interest* (46.6% "to a great extent" + 34.1% "to a moderate extent" = 80.7%). At the other end of the scale, the factor receiving the highest percentage of "not at all" responses was *online language course options* (56.8% "not at all"); adding 28.4% "to a small extent" yielded a total of 85.2%. That was the only factor of the response options provided that was not seen as encouraging schools, to at least a moderate extent, to provide language courses for students to pursue Bilingual Diplomas. All other factors had 11.5% or fewer respondents indicating they served "not at all" to encourage schools to provide language courses for students to pursue Bilingual Diplomas.

As described previously, open-ended responses were coded and categorized by theme or topic. Thirty-four respondents answered the open-ended question, "What other factors encourage your school to provide language courses for students to pursue Bilingual Diplomas?" The majority of these responses clustered relatively equally around the nature of the BD, the nature of the school (e.g., international, all bilingual), advantages to future education (e.g., earning college credit or plans to study abroad), and the value of either cultural understanding in an increasingly global environment or specific cognitive benefits of being bilingual/multilingual. In other words, values or benefits of the BD were cited as factors that encourage schools to offer it.

Of 88 respondents who addressed the extent to which the eight listed factors prevent their schools from providing language courses for students to pursue Bilingual Diplomas, the highest response of “to a great extent” was 26.4% for *scheduling considerations*, followed by 15.9% for *curriculum constraints*, 13.8% for *lack of available qualified staff*, and 10.3% for *lack of student interest*. Fewer than 10% chose “to a great extent” for any other factor. An additional 19.5% rated *scheduling considerations* “to a moderate extent,” for a total of 45.9% to a moderate or great extent, the strongest factor cited as preventing respondents’ schools from providing language courses for students to pursue Bilingual Diplomas.

Over half of respondents, 56.3% cited *goals and priorities of school leadership* as “not at all” preventing their school from providing language courses for students to pursue Bilingual Diplomas. Slightly over half, 51.2% of respondents indicated “not at all” to *lack of online language course options*, followed by just under half (49.4%) *lack of parent interest* and 44.8% *lack of student interest*. In fact, two-thirds or more of respondents checked “not at all” or “to a small extent” to all but *scheduling considerations*. Compared with the responses addressing factors that encourage schools to offer language courses, far fewer respondents cited factors as preventing their schools from providing language courses to a great extent, and far more respondents cited factors as not at all preventing schools from providing language courses. Fourteen respondents gave substantive answers to, “What other factors prevent your school from providing language courses for students to pursue Bilingual Diplomas?” Small class size, such as is associated with declining enrollment, and budget constraints, along with availability of qualified staff received the most frequent mentions. Factors cited as preventing schools from providing language courses for students to pursue the BD tended to identify practical or logistical issues rather than the nature or value of the Bilingual Diploma.

### ***Enablers and challenges to students***

The survey also asked two related questions about factors that encourage students at respondents’ schools to pursue Bilingual Diplomas and factors that discourage them from doing so. Again the response options were “to a great extent,” “to a moderate extent,” “to a small extent,” and “not at all.” The top two categories of response were combined for an indication of support and the bottom two categories were combined for an indication of lack of support.

Eighty-seven respondents answered the question, “To what extent does each of the following factors encourage students at your school to pursue Bilingual Diplomas?” The factors deemed to encourage students to a great extent were *desire to be multilingual* (47.7%), with an additional 26.7% indicating “to a moderate extent,” for a total of 74.4%; *future career options* (38.4% “to a great extent” plus 34.9% “to a moderate extent,” for a total of 73.3%); *prior language learning experience* (34.9% “to a great extent” plus 30.2% “to a moderate extent,” for a total of 65.1%);

and *Bilingual Diploma promoted at the school level* (34.5% “to a great extent” plus 27.4% “to a moderate extent,” totaling 61.9%).

According to staff survey respondents, the factor doing least to encourage students (“not at all”) was *online language course options* (61.2% ); an additional 29.4% indicated “to a small extent,” for a total of 90.6%. Considerably behind were *curriculum requirements at the national level* (39.1% “not at all,” 28.7% “to a small extent,” totaling 67.8%) and *curriculum requirements at the local level* (38.4% “not at all” and 26.7% “to a small extent,” for a total of 65.1%).

Twelve respondents answered the open-ended question, “What other factors encourage students at your school to pursue the Bilingual Diploma?” Other factors mentioned were the bilingual tradition of the school, the prestige or perceived status of the program, and students’ pursuit of career/university of their choice, including outside the country.

Of 89 respondents, the highest percentage responding “to a great extent” to the question, “To what extent do the following factors discourage students at your school from pursuing the Bilingual Diploma?” was 18.2% to *competing demands of other content coursework*. An additional 37.5% responded “to a moderate extent,” for a total of 55.7%. At the other extreme, 58.6% of respondents indicated “Not at all” to *lack of online language course options* (+20.7% “to a small extent” =79.3%), followed by *lack of information about the program at the school level* (52.3% +26.1% = 78.4%); *not motivated to be multilingual* (44.3% +33.0% = 77.3%); *few languages offered* (36.4% +34.1% = 70.5%); and *no need to be recognized as multilingual* (35.2% +35.2% = 70.4%).

Nine respondents answered the open-ended question, “What other factors discourage students at your school from pursuing the Bilingual Diploma?” No pattern emerged from the responses.

### ***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 5 below. Of 82 respondents who answered this question, the highest percentage, 22.0%, ranked *motivates students to be multilingual* as the most important. Following were: *improves future career opportunities for students* (20.7%); *improves future educational opportunities for students* (18.3%); and *offers a rigorous way to learn another language* (15.9%). 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*. When looking at the average rankings, the latter two factors were the highest, both with 2.94. Other factors’ ratings ranged from 3.55 (*motivates students to be multilingual*) to 3.87 (both *offers a*

*rigorous way to learn another language and improves student academic performance*). The other factor listed was *enhances the quality of the overall school curriculum*, with an average rating of 3.84.

Combining the percentages of respondents who ranked benefits first, second or third in importance, the same two factors were at the top, *improves future career opportunities* (67.1%) and *improves future educational opportunities for students* (65.9%).

**Table 5: Staff opinion about most important benefits of earning the Bilingual Diploma\***

<b>Benefits</b>	<b>% rank 1</b>	<b>% rank 2</b>	<b>% rank 3</b>	<b>Mean rating</b>	<b>n</b>
Motivates students to be multilingual	22.0	6.1	20.7	3.55	82
Offers a rigorous way to learn another language	15.9	8.5	17.1	3.87	82
Enhances the quality of the overall school curriculum	12.2	12.2	11.0	3.84	82
Improves student academic performance	11.0	12.2	18.3	3.87	82
Improves future educational opportunities for students	18.3	30.5	17.1	2.94	82
Improves future career opportunities for students	20.7	30.5	15.9	2.94	82

\* Ranking is from 1, most important, to 6, least important. To simplify presentation of the data, only the top three ranks are shown in this table.

An open-ended question followed, asking “What important benefits of the Bilingual Diploma are not listed above?” Twenty-five responses addressed substantive matters, with several of them related to the importance of understanding 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. Related aspects include becoming “an international citizen,” and getting “to know, accept, and appreciate other cultures.” Further responses to this item identified many cognitive benefits, such as development of higher order thinking skills, abstract reasoning skills, writing, critical thinking, “thinking outside the box,” and creativity. A few other benefits were identified that link proficiency in two languages with increased options for students, such as studying at home or abroad, “becoming exceptional on the job market,” and receiving formal recognition of bilingualism through an internationally recognized diploma.

Staff respondents were then asked what benefits of earning the Bilingual Diploma they thought were most important to parents, again ranking the options from 1, most important, to 6, least important. See Table 6 below. The 82 educators who answered this question indicated that parents would rank the same two benefits as most important: *improves future career opportunities for students* (37.8%, average ranking of 2.41) and *improves future educational opportunities for students* (31.7%, average ranking of 2.59). These remain the top two benefits when adding the items with the two highest and the three highest rankings together. The benefit

that appears to be least important is *enhances the quality of the overall school curriculum*, with 32.9% of the lowest rankings, 54.9% of the two lowest rankings and 74.4% of the three lowest rankings.

**Table 6: Staff opinion about benefits of earning the Bilingual Diploma most important to parents\***

<b>Benefits</b>	<b>% rank 1</b>	<b>% rank 2</b>	<b>% rank 3</b>	<b>Mean rating</b>	<b>n</b>
Motivates students to be multilingual	17.1	17.1	15.9	3.41	82
Offers a rigorous way to learn another language	8.5	9.8	19.5	3.94	82
Enhances the quality of the overall school curriculum	1.2	7.3	17.1	4.52	82
Improves student academic performance	3.7	3.7	25.6	4.12	82
Improves future educational opportunities for students	31.7	29.3	13.4	2.59	82
Improves future career opportunities for students	37.8	32.9	8.5	2.41	82

\* Ranking is from 1, most important, to 6, least important. To simplify presentation of the data, only the top three ranks are shown in this table.

Staff survey respondents were asked, “Which benefits of earning the Bilingual Diploma not listed above are the most important to parents?” Fifteen substantive responses elaborated on the responses already listed.

### ***What is working well?***

Staff survey respondents were asked, “In your school, what aspects do you think are working well in terms of providing opportunities and support for students to pursue Bilingual Diplomas?” Over half of the 56 responses addressed the quality of the curriculum, including language offerings, and its implementation. Several respondents mentioned that they offer only the Bilingual Diploma or that most students take a BD. Another 15 lauded the quality of the teachers – motivated, dedicated, experienced, excellent - and teaching. A few mentioned that the schedule is flexible enough to accommodate multiple languages and course options for the BD. Finally, it was suggested that students who are already bilingual or who are highly motivated do well.

### ***What are the challenges?***

The staff survey then asked, “In your school, what are the biggest challenges to providing opportunities and support for students to pursue Bilingual Diplomas?” The 62 responses fell into categories of staffing, scheduling, students, and the program. Staffing issues include inability to find qualified staff who have both language and content area skills, but also the challenge of staffing small classes (in a small school). Scheduling challenges are varied but mostly deal with fitting in all the courses, and languages, students need. A few comments were related to students, from at least two perspectives. One perspective is perceived lack of student interest or engagement in the Bilingual Diploma. Another perspective suggests that adequate preparation

and language background a student brings to the program are necessary to the student electing to pursue the BD and succeeding in that pursuit.

Programmatic challenges varied. Coordination among subjects, and between the IB and national requirements, can be challenging. A concern about IB is that, “Some aspects of the course are unclear, and make it very difficult to teach.” Apparently related to that concern is, “Vague criteria in the subject guides.” Lack of national recognition of the BD and lack of interest from a local university also pose challenges according to individual respondents.

### ***What changes are recommended?***

To help guide thoughts about improving support for the BD at the school level, staff survey respondents were asked, “In your school, what changes do you think would contribute most to increase the number of students pursuing Bilingual Diplomas?” Almost 60 responses to this item fell into several categories: language offerings, promotion or awareness of advantages or benefits of the BD, scheduling considerations, qualified staff, and funding/resources.

Among responses to this question were suggestions related to language offerings, including the desire to offer more language courses, especially those online or self-study, which would be less expensive than hiring teachers. One respondent succinctly called for, “Additional time and resources for extra language teaching.” In some schools where all or nearly all students pursue the BD, this question was deemed irrelevant.

Efforts to promote or increase awareness of the existence and advantages of the IB program in general, and the advantages of multilingualism and the BD in particular, were suggested for both potential students and parents. One suggestion was to “start with the focus on IB earlier on...” Another called for, “Better information about the course, so teachers can give clearer information to parents.” Another staff member noted, “Awareness that multilingualism can help more than the students realize, regardless of their college major...”

More flexible scheduling was suggested. For example, one respondent urged, “For the IB to be less rigid with its 24 month schedule. As it stands now, there’s very little opportunity to be creative with time.” Adding qualified staff was a matter of both availability and finances. Other suggestions touched on a variety of topics. In some countries, it would be helpful if the government or the national curricular requirements recognized or better understood the IBDP in general and the BD in particular. Specifically addressing the IB were two related suggestions: “Relaxing the assessment criteria to reward bilingual students taking these courses, rather than putting them off,” and “Listening to teachers’ complaints about the guide and making changes.”

### ***Anything else?***

In any survey, researchers tend to include an opportunity for participants to comment in any way they choose, so the survey ended with, “Is there anything else you would like to add about factors that encourage or discourage students from pursuing the Bilingual Diploma?” About twenty respondents commented. As is often the case, most repeated or summarized topics or issues already addressed. The following two quotes have been selected to represent perspectives on, first, the BD, and, second, some of the broader values it embodies. “To put it simply, the more it pays off to students (in terms of educational and career options, as well as not being an impediment to the studies of the other subjects due to lack of time), the more likely they are to pursue Bilingual Diploma.” “Bilingualism and multilingualism should be encouraged as values for any educational community, because they imply a desire to achieve multiculturalism and a belief that diversity is beneficial to the educational community and the community as a whole.”

### **Phase II: Student Record Analysis**

Each of the 43 schools that responded to Phase I of the study were invited to participate in Phase II, which involved the analysis of student records. Thirteen schools agreed to participate. These schools, located across nine countries, represent a mix of schools from countries with high percentages of BD candidates among their IBDP candidates (Argentina, Dominican Republic, Nicaragua, and Paraguay), schools from countries with high percentages and also high raw numbers (high frequency) of BD candidates (Greece, Poland, and Sweden), and schools from countries with high numbers of BD candidates but where these candidates are a small share of the overall IBDP population (Canada, the United Kingdom, and the United States).

Select student records were requested from schools; these were supplemented by de-identified IBIS data on the entire DP population of the school. The school-based data unfortunately did not yield comparable results either within or across schools, but the IBIS data were more revealing.

### ***School-based Performance Data***

Schools were asked to provide information on grade point average (GPA), students’ course grades for IB subjects, high school exit examinations, and college entrance examinations. These data were solicited in order to examine differences in the performance of Standard and Bilingual Diploma candidates from multiple viewpoints, and to understand whether performance measures supplemental to the IB examination scores could provide more nuanced understandings of the difference between BD and SD candidates.

In order to reduce the amount of time that school personnel devoted to the task of supplying additional student data to the research team, data were requested for twelve students per school.

If the school had fewer than 12 IB students, then all were included in the request. In schools that had more than 12 IB students, using student ID numbers provided by IB, researchers selected 12 students from each participating school based on their IB exam scores (four students each with high, average, and low scores, intended to illustrate a cross-section of the school's performance). All 43 of the schools that responded to the staff survey were included in the sample of schools contacted for the student data request. The majority of schools did not respond to the request, while some others refused to release student data, citing privacy concerns.

As might be expected, given the broad diversity of IB contexts, schools vary in the additional measures of performance that are implemented. Further, even when schools have similar measures in place (e.g. a high school exit examination), these measures may not be comparable across schools.

A clear comparative measure across the candidates at the thirteen schools in the sample does not emerge from these data. The number and proportion of the thirteen schools which employed each measure are reported in Table 7.

**Table 7: School-based measures of student performance, by number and proportion of schools which use the measure**

<b>Measure</b>	<b>Number of schools</b>	<b>Proportion of schools</b>
GPA	11	85%
Course grade	13	100%
High school exit examination	5	38%
College entrance examination	5	38%

All of the schools in the sample reported that they assigned course grades for IB subjects. The scaling of course grades, however, was not comparable across the schools. Six of the schools assigned course grades on a scale of 1-7. Three schools used a scale of 1-100; one school used a scale of 1-10; and two schools used an alphabetical scale. For the final school, it was not clear which scale was used. Despite the fact that the course grade was a common measure across all thirteen schools, given the disparities in the scales used for this measure, it is not possible to compare students across schools on their course grade performance (in other words, even if the course grades were converted to comparable percentages, the criteria for assigning scores are not comparable).

Grade point averages were assigned by eleven of the thirteen, but again, these were not scored in a consistent pattern. In five of the cases, the GPA scale was unclear. Three schools used a four point scale; the remaining four used a variety of disparate scales.

Finally, five schools had high school exit examinations in place as a measure of student performance, and five schools reported college entrance examinations were used in their educational context. Of these, two used both items. Again, the variety of types of examinations used mean that it is not possible to compare student performance across schools. In order to appropriately compare the performance of BD and SD students on measures other than IB examinations, a sample set of students with comparable scores on, for example, high school exit examinations or college entrance examinations would have to be identified. Such a data set would likely be country or region specific, and hence would not provide performance differences across IB as a whole.

### ***Analysis of International Baccalaureate Information System data***

The data provided by the 13 schools in this phase of the study were supplemented with data drawn from IBIS. A total of 1,911 student examination records from 323 individual candidates, representing each of the IBDP candidates in the 13 schools were examined. Schools had between 4 and 74 candidates per school. The average number of candidates was 25. The candidates were almost equally split between Bilingual Diploma candidates (163 candidates, or 50.5% of the candidates) and Standard Diploma candidates (180 candidates, or 49.5%) while the schools varied in the proportion of candidates seeking the Bilingual or Standard Diploma. In four schools, all students were awarded the Bilingual Diploma; in an additional four, all students were awarded the Standard Diploma. The remaining five schools were split; in three of these, more than 70% of the candidates were Bilingual Diploma candidates, a fourth school had almost equal proportions (47% of students seeking the Bilingual Diploma), while in the fifth, a single student (representing less than 2% of the total IBDP candidates) was awarded the Bilingual Diploma.

### ***Language Backgrounds of Bilingual Diploma and Standard Diploma Students***

IBIS data on each candidate at the thirteen sampled schools were mined to provide an overview of the language backgrounds of SD and BD students. A data profile was created for each of the 323 individual candidates in the data set of 1,911 student examination records. The data profile included the student's unique candidate number, the school which the student attends, the country in which the school is located, and the student's mother tongue<sup>1</sup> as recorded in the IBIS dataset.

The data indicated that there were a total of 23 languages spoken by the 323 candidates. Of these languages, five are the official or *de facto* national languages in the nine countries in which the sample schools are located; namely English, Greek, Spanish, Polish, and Swedish. These five languages account for 88% of the candidates in the sample set. A summary of the number and

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<sup>1</sup> We acknowledge that the concept of "mother tongue" is not unproblematic, particularly for individuals from multilingual backgrounds.

proportion of the students in the data set who speak each of these languages is provided in Table 8.

**Table 8: Number and proportion of students for the five most common mother tongue languages in the IBIS sample set**

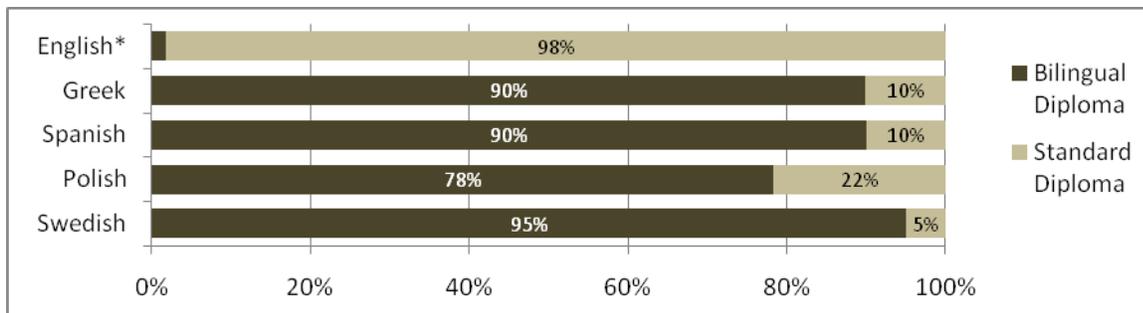
Language	Number of students	Proportion of total
English	108	33%
Greek	69	21%
Spanish	50	15%
Polish	37	11%
Swedish	20	6%
<b>Total</b>	<b>284</b>	<b>88%</b>

Language backgrounds are strikingly different between Bilingual Diploma and Standard Diploma speakers. First, of the 108 English mother tongue speakers in the data set, only two are candidates for the Bilingual Diploma. In the set of Bilingual Diploma candidates, 95% are mother tongue speakers of one of the four national languages other than English in the data set. The majority of Standard Diploma earners are native English speakers (66%). A summary of the breakdown of language backgrounds by diploma type is provided in Table 9.

**Table 9: Number and proportion of students for the five most common mother tongue languages in the IBIS sample set, by type of Diploma sought**

Language	Bilingual Diploma		Standard Diploma	
	Number of students	Proportion of total	Number of students	Proportion of total
English	2	1%	106	66%
Greek	62	38%	7	4%
Spanish	45	28%	5	3%
Polish	29	18%	8	5%
Swedish	19	12%	1	1%
Other languages	6 (4 languages)	4%	36 (17 languages)	22%
<b>Total</b>	<b>163</b>	<b>100%</b>	<b>160</b>	<b>100%</b>

Figure 2 illustrates these data by language type. While the majority of English speakers earn Standard Diplomas instead of the BD, for each of the other national languages present in the sample, the majority of speakers are Bilingual Diploma earners.



\*The proportion of English speakers seeking the Bilingual Diploma is 2%.

**Figure 2: Proportions of Bilingual and Standard Diploma students, by language background**

Table 10 provides an overview of data on the linguistic diversity of Bilingual and Standard Diploma students, by country. In the four Spanish speaking countries in the data set, all of the students were Bilingual Diploma candidates, and almost all were native Spanish speakers. In the two English speaking countries, all but one candidate were Standard Diploma students; however these countries were more linguistically diverse. In Greece, Poland, and Sweden, the clear majority of Bilingual Diploma candidates were native speakers of the national language—however, interestingly, in both Greece and Sweden, non-native speakers of the national language were in the majority of Standard Diploma students.

**Table 10: Number and proportions of Bilingual Diploma, Standard Diploma, and all Diploma candidates who speak the most common mother tongue of their country**

Country	Most common language	Students who speak the most common language					
		BD students		SD students		All students	
		Proportion	Number	Proportion	Number	Proportion	Number
Argentina	Spanish	100%	9	-	-	100%	9
Dominican Republic	Spanish	93%	14	-	-	93%	14
Greece	Greek	94%	62	30%	7	78%	69
Nicaragua	Spanish	100%	4	-	-	100%	4
Paraguay	Spanish	100%	16	-	-	100%	16
Poland	Polish	100%	29	100%	7	100%	36
Sweden	Swedish	83%	19	33%	3	63%	20
United Kingdom	English	-	-	85%	34	85%	34
United States	English	100%	1	81%	66	80%	66

These data on language background suggest that students who are native speakers of their national language, in cases where that national language is not English, are more likely to be candidates for the Bilingual Diploma. English speakers and minority language speakers are more likely to attempt the Standard Diploma. Interpretation of these data is limited by the fact that this analysis included a fairly small sample of schools.

The data hint toward larger patterns which may emerge with further analysis of IBIS data. For instance, it appears that Bilingual Diplomas are more common in countries where English is not the national language—however, in such countries, are linguistic minority students likely to opt for the Standard Diploma, and if so, why? Why, additionally, are native English speaking students in English speaking countries less likely to pursue the Bilingual Diploma, and what might be done to ameliorate this? Are linguistic minorities in primarily English speaking countries likely to pursue the Bilingual Diploma?

#### *Academic Performance of Bilingual Diploma and Standard Diploma Students*

As noted above, the IBIS examination records covered 1,911 student examination records from 323 individual candidates. The records were restricted to examinations in IB subjects 1-6, which are scored on a numeric scale of 1-7. Results from the Extended Essay and the Theory of Knowledge, which are scored using letter grades, were excluded from this analysis. The examination records included a total of 47 subjects examined in 14 languages. A total of 1,454 of the records (76%) were from examinations conducted in English.

Candidates took different numbers of examinations. The average number of examinations per candidate was six, and slightly more than half of the candidates in the data set (58%) took exactly six examinations. The number of examinations ranged from 2 to 18, but a sizable majority of the candidates (81%) took six or fewer examinations.<sup>2</sup>

Average scores were calculated at the student level and at the examination level. In both cases, there was very little difference in average score between the Standard Diploma and the Bilingual Diploma set. Examinations are scored on a scale of 1-7.

To calculate student averages, the average examination score for each student, for all subjects 1-6 included in the IBIS data set, was first determined. Average examination scores ranged from a low of 3.71 to a high of 7.00. The average individual student score was 5.21; the average individual student score for the Bilingual Diploma (163 candidates) was 5.30, while the average individual student score for the Standard Diploma (160 candidates) was 5.13. Note that these scores are not weighted to account for the fact that students took different numbers of examinations.

The average examination score was 5.20. For examinations where the candidate was awarded the Bilingual Diploma (1,053 examinations), the average score was 5.26. For examinations where the candidate was awarded the Standard Diploma (858 examinations), the average was 5.14.

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<sup>2</sup> DP candidates must take six examinations in order to receive the diploma. Candidates who took fewer than six examinations may have taken the balance of their examinations in the year prior.

Data on average examination scores, by subjects, in each of the subject area groups 1-6 as well as school based and pilot subjects, are presented in Tables 11-17.

**Table 11: Average examination results for Bilingual and Standard Diploma students in group 1 (Studies in language and literature)**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
ENGLISH A LANGUAGE & LITERATURE	5.32	75	5.36	36	5.34	111
ENGLISH A LITERATURE	4.50	11	5.52	124	5.44	135
FINNISH A LITERATURE	3.00	1			3.00	1
FRENCH A LANGUAGE & LITERATURE	6.00	2			6.00	2
KOREAN A LITERATURE	6.00	1			6.00	1
MODERN GREEK A LANGUAGE & LITERATURE	5.33	5			5.33	5
MODERN GREEK A LITERATURE	4.61	59			4.61	59
POLISH A LITERATURE	5.96	27	6.00	3	5.97	30
SPANISH A LANGUAGE & LITERATURE	5.10	20			5.10	20
SPANISH A LITERATURE	5.12	29			5.12	29
SWEDISH A LITERATURE	6.05	22			6.05	22
<b>GROUP ONE AVERAGES</b>	<b>5.21</b>	<b>252</b>	<b>5.49</b>	<b>163</b>	<b>5.32</b>	<b>415</b>

**Table 12: Average examination results for Bilingual and Standard Diploma students in group 2 (Language acquisition)**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
ARABIC AB INITIO			3.00	1	3.00	1
ARABIC B			4.67	3	4.67	3
CHINESE B			5.60	5	5.60	5
ENGLISH B	6.21	71			6.21	71
FRENCH AB INITIO	5.61	28	4.40	5	5.42	33
FRENCH B	6.14	7	5.24	33	5.40	40
GERMAN AB INITIO	6.00	1			6.00	1
GERMAN B	6.50	6	6.17	12	6.28	18
ITALIAN AB INITIO	7.00	1	5.10	10	5.27	11
JAPANESE AB INITIO			5.67	3	5.67	3
MANDARIN AB INITIO			6.25	4	6.25	4
SPANISH AB INITIO	6.82	11	5.43	24	5.88	35
SPANISH B	n/a*	4	5.53	40	5.53	44
SWEDISH B			6.00	9	6.00	9
<b>GROUP TWO AVERAGES</b>	<b>5.95</b>	<b>129</b>	<b>5.45</b>	<b>149</b>	<b>5.77</b>	<b>278</b>

\* Grades were not submitted for the four students in this subject area.

**Table 13: Average examination results for Bilingual and Standard Diploma students in group 3 (Individuals and societies)**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
BUSINESS & MANAGEMENT	5.28	40	4.92	26	5.14	66
ECONOMICS	5.40	43	5.42	31	5.41	74
ENVIRONMENT AND SOCIETY	5.00	28	4.53	38	4.73	66
GEOGRAPHY	5.67	15	5.42	19	5.53	34
HISTORY	4.94	85	5.08	49	4.99	134
PHILOSOPHY			5.63	8	5.63	8
PSYCHOLOGY	5.58	19	4.59	44	4.89	63
SOCIAL CULTURAL ANTHROPOLOGY	4.15	20	5.82	11	4.74	31
<b>GROUP THREE AVERAGES</b>	<b>5.11</b>	<b>250</b>	<b>5.00</b>	<b>226</b>	<b>5.06</b>	<b>476</b>

**Table 14: Average examination results for Bilingual and Standard Diploma students in group 4 (Experimental sciences)**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
BIOLOGY	4.63	106	5.22	69	4.86	175
CHEMISTRY	5.42	45	4.52	63	4.90	108
PHYSICS	5.71	38	5.00	24	5.44	62
<b>GROUP FOUR AVERAGES</b>	<b>5.04</b>	<b>189</b>	<b>4.90</b>	<b>156</b>	<b>4.98</b>	<b>345</b>

**Table 15: Average examination results for Bilingual and Standard Diploma students in group 5 (Mathematics)**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
COMPUTER SCIENCE	7.00	3	4.50	2	6.00	5
FURTHER MATHS	3.00	1			3.00	1
MATHEMATICAL STUDIES	5.15	75	4.97	39	5.09	114
MATHEMATICS	5.02	89	4.81	75	4.93	164
<b>GROUP FIVE AVERAGES</b>	<b>5.10</b>	<b>168</b>	<b>4.86</b>	<b>116</b>	<b>5.00</b>	<b>284</b>

**Table 16: Average examination results for Bilingual and Standard Diploma students in group 6 (The arts)**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
FILM			4.86	7	4.86	7
MUSIC			5.00	5	5.00	5
THEATRE	4.60	5	5.00	2	4.71	7
VISUAL ARTS	4.84	39	5.35	17	5.00	56
<b>GROUP SIX AVERAGES</b>	<b>4.81</b>	<b>44</b>	<b>5.16</b>	<b>31</b>	<b>4.96</b>	<b>75</b>

**Table 17: Average examination results for Bilingual and Standard Diploma students in Pilot & School-based Studies**

Subject	Bilingual Diploma		Standard Diploma		All exams	
	Average Grade	Number of results	Average Grade	Number of results	Average Grade	Number of results
DANCE	6.00	1	5.00	7	5.13	8
ART HISTORY			4.00	8	4.00	8
WORLD ART & CULTURE	6.67	20	6.00	2	6.60	22
<b>PILOT &amp; SCHOOL-BASED AVERAGES</b>	<b>6.63</b>	<b>21</b>	<b>4.65</b>	<b>17</b>	<b>5.74</b>	<b>38</b>

Tables 11-17 provide descriptive statistics for the examination scores for BD and SD students in groups 1-7. Further statistical analysis was not performed on these results, for a number of reasons. First, the sample is not representative of IB schools in general—rather it is self-selected from those schools which provided data for Phase I and II of this study. Second, for each individual course, the sample sizes are small. Finally, these data represent a subset of the entire IBIS data set—calculating the significance of the degree to which inferences from these data are representative of the entire data set seems both misleading and potentially irrelevant, as the entire data set is itself available for analysis. These data should perhaps rather be regarded as hypothesis-raising data against which future research can be tested.

An examination of the result by subject area shows a similar pattern to the overall results—in most cases, students awarded the Bilingual Diploma perform better than those awarded the Standard Diploma, but the differences are slight.

Groups one and two (language and literature, and language acquisition) show the most marked differences in exam-taking patterns between the Bilingual and Standard Diploma students. Group one courses are intended for “students who have previous experience of using the language of the course in academic contexts,” and this “is the site where the IB recognizes the right of all students to study their mother tongue at the same level as other DP subjects” (IBO 2011, p. 19). Group two courses are for students who are not yet proficient enough in the language for

advanced academic study. Group two courses may be “language B” courses, for students who have some background, or they may be *ab initio* courses for beginner level students.

On average, Standard Diploma students have higher performance levels in group one (5.49 for Standard Diploma students, vs. 5.21 for Bilingual Diploma students), and Bilingual Diploma students have higher performance levels in group two (5.95 in the Bilingual program vs. 5.45 in the Standard program). The number of results in group one is much higher for the Bilingual candidates, however. There are 252 examination results in group one for Bilingual candidates, distributed among 163 individual candidates, and only 163 scores in this group for Standard Diploma candidates, distributed among 160 individual candidates. Although the average group one scores for the Bilingual Diploma students are lower, this may well be due to the fact that this group of students are more likely to pursue multiple challenging courses at the language and literature level in two languages, while Standard Diploma students take these classes only in a single language. Also notable is the fact that almost all the Standard Diploma students take group one classes in English. Of the 11 subjects taken in this group, only the two English language subjects have sufficient numbers of both BD and SD candidates to compare within the subject; in both cases, the SD candidates have higher average scores.

For group two, language acquisition, Bilingual Diploma students on average outperform Standard Diploma students (5.95 vs. 5.45). In this group, the Bilingual Diploma students are distributed among a relatively small number of subjects—seven of the fourteen offerings, with more than half (71 students out of 128, or 55%) taking English B examinations. The Standard Diploma students, however, are more widely distributed among the examinations. Standard Diploma students take examinations in twelve of the fourteen choices in the group, and notably, none take English B examinations. For the five subjects where there are both SD and BD candidates, BD candidates outscore SD candidates for each subject in this group.

For the remaining four subject areas which do not cover language content, Bilingual Diploma students outscore Standard Diploma students in group 3: Individuals and societies (5.11 vs. 5.00); group 4: Experimental sciences (5.04 vs. 4.90); and group 5: Mathematics (5.10 vs. 4.86). In each of these cases, the difference in average score is less than 0.25 examination points. In group 6: The arts, Standard Diploma students score an average of 5.16 points, while bilingual Diploma students score 4.81 points. In group 3, there are 7 subjects for which there are both SD and BD candidates; BD candidates outperform SD candidates in 4 of the 7. In group 4, BD candidates score higher on 2 of the 3 subjects for which a comparison can be drawn, and in group 5, BD students score higher on both of the subjects for which the two groups can be compared. In group 6 there is a single subject with sufficient numbers of BD and SD student to draw a comparison; SD students have the higher average score.

The analysis did not include statistical significance testing because of the availability of the far richer, more complete IBIS dataset. In terms of practical significance, the analysis of both IBIS data and the specific data collected for the study clearly illustrate that bilingualism does not hamper student performance—BD students are clearly on par with their SD peers, and additionally become educated bilinguals.

### Phase III: Case Schools

Phase III of the study built on the first two phases by examining implementation of the BD in greater depth in three case schools drawn from the 13 Phase II schools. Six schools, representing those with high frequencies or high frequency/high percentage of BD schools were invited to participate; three agreed to do so. Case analyses, which included five interviews with four administrators and ten teachers, a survey of 59 students, and a review of school-based language policy documents, were carried out in three schools to delve further into understanding the results from the staff survey and to gather the opinions of students. Case schools were selected based on their interest and willingness to participate in all phases of the study. Therefore, the schools included do not necessarily represent all IB schools in the country.

Table 18 shows the breakdown of interviews with administrators and teachers. Administrators were either the Head of School or the Diploma Coordinator. All administrators had three or more years of experience working at their current schools. Some Diploma Coordinators played dual roles and were also part of the teaching staff. Teachers had between two and thirteen years of experience at their current schools. All interviews were conducted in English with the exception of the interview and focus group for Case School B which were conducted in both English and Spanish.

**Table 18: Case School Interview by Participant Role**

Case School	Administrators	Teachers	Both Administrator & Teacher	Total
A	1	1	1	1
B	2	8	1	9
C	1	4	1	4

This section of the report provides background on the three case schools selected to further understand the specific contexts that influence BD implementation and students' experiences with the BD. It also contains an analysis of findings from the educator interviews as well as analysis of findings from the student surveys.

### *Characteristics of Case Schools*

#### *Case School A*

Case School A is located in a primarily Spanish-speaking country. It is located in the IB Americas (IBA) region which includes IB World Schools in 31 countries and territories in Central, North and South America. A total of 2,677 schools within this region includes 1,322 that offer the Diploma Programme (IB 2014). Case School A has been an IB World School since December 2009, and it is in a high percentage country. It is a private bilingual school for children in kindergarten through grade 12 that offers the DP in English and Spanish. In the last examination session, students completed language exams in English and Spanish. Currently, the school has 50-100 students in 11<sup>th</sup> and 12<sup>th</sup> grades, and 65% of each class pursues the DP, with 100% of the DP students choosing the BD. Almost all of the students are from the home country of the school.

Case School A is a secondary school founded in 1989 where 40% of the curriculum is taught in English and 60% is taught in Spanish. Students are first exposed to English in kindergarten. The bilingual plan is officially recognized at all levels and promotes comprehensive education in both English and Spanish, taking into account all aspects: physical, intellectual, emotional, social and moral. This integrated implementation requires the curriculum framework in Spanish to be closely related to the curriculum in English.

#### *Case School B*

Case School B is also a member of the IB Americas region. This school has been an IB World School since July 1995, and it is in a high percentage country in our study. It is a private bilingual school for children in prekindergarten through grade 12 that offers the DP in English and Spanish. In the last examination session, students completed language exams in English, French, and Spanish. Currently, the school has 50-100 students in both years, and roughly 40% of those students pursue the IBDP, with 100% of the DP students choosing the BD. While the majority of students enrolled are local students, about 25% come from foreign countries in Central and South America, as well as Spain.

The secondary school of Case School B, a bilingual school where both English and Spanish are working languages, was founded in 1976. Students learn English vocabulary in preschool, and starting in first grade are taught to read and write in both languages. The Spanish Programme follows the Ministry of Education's curriculum and the English Programme is based on an international curriculum which includes the requirements to earn the high school diploma. While in the last two years of high school, the students participate in the IBDP. Six new subjects are studied by students and are evaluated externally in different countries.

*Case School C*

Case School C is in a European country in the IB Africa, Europe and Middle East (IBAEM) region. Of 891 schools in the region, 771 offer the DP (IB, 2014). This school has been an IB World School since June 1999, and it is in a high percentage/high frequency country. It is a private, non-profit International School for children in prekindergarten through grade 12 that offers the DP in English. The school has boarding facilities for children in grades 7-12 and is open to male and female students. In the last examination session, students took language exams in English, French, German, Greek, Mandarin and Spanish. Currently, the school has 25-50 students in both years. More than 70% of the students pursue the IBDP, with 50% choosing the SD and 50% choosing the BD. The majority of students are local, while the rest attend from a neighboring country, the United States and other EU countries.

The secondary school of Case School C was founded in 1962. The curriculum is that of U.S. general academic, college-preparatory schools. The school's testing program includes the College Board and the National Merit Scholarship Qualifying tests as well as the Measures of Academic Progress (MAP) adaptive standardized test for grades 1-9. All instruction is in English. Greek, French, and Spanish are taught as foreign languages. One hundred percent of the graduates go on to colleges and universities in the United States and other countries. The school is fully accredited by the Middle States Association of Colleges and Schools. Beginning in sixth grade, students in the middle school must take an English language and literature course and a second language course as part of their schedule every year.

*Interviews*

Researchers conducted five separate individual and focus group interviews with educators at all three case schools (interview questions are provided in the Appendix). Interviews were conducted with four administrators and ten teachers, including one who was the parent of a student who had earned a BD in another school in the same country. All interviews were audio-recorded. Researchers who facilitated the interviews also took notes. Recordings were transcribed and emerging themes were noted. Transcriptions were then coded and categorized according to those themes and topics. Specific themes are organized below as sub-headings. Where the same question was asked of both administrators and teachers, comparisons of emergent themes were made between the two groups. Interviews covered topics related to factors that may encourage or discourage the Bilingual Diploma, perceived differences between SD and BD students, and suggestions for the improvement of the IBDP.

*Factors that may encourage students to pursue the Bilingual Diploma*

*Bilingual Schools:* Interview analysis showed that the bilingual schools studied, Case School A and Case School B, which had 100% of their IB students earn Bilingual Diplomas, did not offer the Standard Diploma option to students. Both schools teach classes in two languages (English

and Spanish), so the students are already proficient in two languages and taking courses in both languages when they enter the DP, which makes the BD the only option.

*Certification of Proficiency:* Another factor that some administrators and teachers mentioned might encourage students to pursue the BD is if the diploma had a certification of the level of proficiency in the languages in which students studied. They suggested the value of something similar to the Common European Framework of Reference for Languages: Learning, Teaching, and Assessment (CEFR), which classifies the individual's level of language proficiency. Case School C administrators and teachers felt strongly that specific recognition tied to the IB Bilingual Diploma would persuade parents to value the program and encourage their children to pursue the BD. It would also help graduates seeking professional positions to stand out to employers seeking candidates with competence in two or more languages. 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." In contrast, Case Schools A and B, not located in Europe, considered the Bilingual Diploma a type of certification that has prestige. However, they made a strong recommendation for IB to educate local universities about the merits of the IB diploma. "Many universities do not acknowledge it or understand how to differentiate between students with an IB diploma and a standard high school diploma," one teacher explained.

*Coherence of IB Programs:* Responses from administrators and teachers at all three case schools were compared to determine whether coherence of IB programs would encourage more students to pursue the BD. Case School A's administrators and teachers felt that more students would ultimately pursue the BD if the IB Primary Years Program (PYP), Middle Years Program (MYP) and DP programs were all offered within the school. Since Case School A only offers the DP, administrators mentioned the need for orienting teachers in the lower grades to the IB requirements so they are able to help younger students prepare for the rigorous curriculum of the DP. One administrator explained, "Our teachers look at the MYP requirements to see what they can incorporate into their grade 8-10 curriculum to help prepare students." In contrast, teachers and administrators in Case School C did not believe it would make a difference if their school had PYP or MYP. They explained that they have many students come to their school from different systems every year who are able to successfully complete the DP. Finally, administrators in Case School B felt that the teachers did a good job of working with younger students in order to prepare them for the DP. However, several teachers in Case School B felt that coherence of IB programs would increase opportunities for students. Teachers also believed the "methodology, assessments, content, skills and objectives of the MYP would help our students to transition better into the IB Diploma Programme."

*Factors that may deter students from pursuing the Bilingual Diploma*

*BD Workload:* In response to the staff survey, some educators suggested that the BD course workload might be a factor hindering students from pursuing the BD. Teachers and administrators explained that the IBDP program overall is more difficult than the standard high school diploma offered by the schools. An administrator at Case School A confirmed, “The IB course load is equally demanding whether you get the SD 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 1/3 less of everything required of the IBDP. The IB program is more demanding.”

*National Curriculum Requirements:* In some countries, including each of the countries of the three case schools, there are additional national course requirements from 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 as to whether or not to participate in the DP. 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. For instance, in Case School A, IB Biology is taught in English. The school had to apply to the Ministry of Education in order to present a special plan that made the IB Biology course taught in English equivalent to the required *Biologia* course taught in Spanish. Merging the national requirements with those of IB can ease the workload of the IBDP program and ensure that students do not have to take duplicative courses, which could discourage them from pursuing the BD.

*Standard Diploma vs. Bilingual Diploma*

When asked about the differences between students who pursue the BD and the SD, Case School C found the major difference to be in family background. Many of the international students are bicultural. The students are a multicultural community, and they are proud of their languages. Many parents speak multiple languages, and they want their children to speak several languages, too, so they likely encourage their children to pursue the BD. Another difference was in “mother tongue.” The students who do not have English as a mother tongue want to study in their native language, so they will continue to pursue the BD. Their native language and English will usually be the two languages of study. There did not seem to be any differences in outcomes, according to teachers. There was also recognition that some bilingual students might not choose to earn the BD because they are less “language-oriented.”

Several advantages of pursuing the BD versus the SD were discussed by Case School C educators. For instance, some students are interested in attending university in the United States,

and they understand that multilingualism is important for students studying abroad. Similarly, if students want to attend a high quality university, they want to have a strong curriculum vitae to be competitive internationally. Other benefits of the BD cited by teachers include the myriad of cognitive benefits that are not necessarily associated with language. One teacher explained, “For instance, after grade eight, bilingual students have higher gains on standardized math tests. People are becoming more aware that bilingualism promotes better thinking because people fluent in two or more languages have more domains to draw from that help them in other areas.”

### *Diploma Programme Improvements*

Administrators and teachers were asked to articulate what additional support would be beneficial from the IB Organization in order to improve the IBDP. The following three themes emerged from the discussion of IBDP improvements: higher education; professional development; and program requirements.

*Integration with Higher Education:* When case schools were requested to provide information on potential improvements to the IBDP, integration with higher education was mentioned as a key theme. Schools requested that IB continue to provide information to universities and employers about the value of the IB diploma, including both the standard and bilingual qualifications. They further felt that IB should work with universities to encourage acknowledgement of the accomplishment students have made by completing the IBDP and they should encourage universities to recognize and give credit for acquiring proficiency in another language. Additionally, administrators in Case School B suggested that IB should continue to work with universities to waive TOEFL for students who pass IB English classes. It was felt that this would provide more incentives for students to pursue the BD.

*Professional Development:* Improvements to professional development offerings from IB emerged as a second theme, particularly regarding internal exam grading, clarifying rubrics and providing examiner explanations for grade moderations. Several teachers in Case Schools B and C mentioned their grading standards for several IB courses were too vague, particularly Language and literature and Physics. They stated that grading criteria are too open-ended and general, which makes it difficult for the students to understand expectations. One teacher stated, “IB owes it to us to be more precise so that we can prepare students for exams in the correct way, One teacher who is also an examiner explained, “Training for examiners is much different than for teachers. Perhaps IB could offer online professional development for teachers to learn the criteria rather than the test.” Schools also encouraged IB to foster collaboration between IB schools that are geographically near one another, even if different languages are taught and provide training to teachers in multiple languages. Administrators at Case School B suggested more face-to-face professional development opportunities for teachers. For example, some countries may be distant from other countries that speak the same language. “Is it possible to

offer face-to-face training in a language other than English in the United States?” That would be closer and less costly for educators in some countries.

*Program Requirements:* Schools raised program requirements as a third area in which they felt IB might make improvements. In some countries national requirements increase the course load for DP students over and above the DP requirements. “Could IB look at local curriculum and see how our classes will fit into IB requirements? It would help to go to the Ministry of Education with this option instead of always asking the Ministry to be flexible.” Schools also felt that the IB should investigate the stress that IBDP students experience as they attempt to complete such stringent requirements in a short timeframe. Several teachers and the teacher/ parent commented, “These are children, not adults, and they are being treated like they are in graduate school. Children are anxious and not sleeping at night because so much work is required for the DP in such a short time.” Finally, schools requested consideration of IB exams to ensure that they are manageable for students. Some teachers mentioned that some IB exams such as Business and Management are so long that students do not have enough time to complete them.

### ***Student Survey in Case Schools***

To gain a student perspective on the Bilingual Diploma and factors affecting students’ perceptions of it, researchers developed a survey instrument with 22 questions to survey students in three to five case schools (see the Appendix for survey questions). The survey built on questions in the staff survey that were appropriate to the student audience. Additional questions addressed students’ language and school background, as well as their college and career interests. Due to unforeseen circumstances, two schools that had been inclined toward becoming case schools had to withdraw. However, eight students from those schools completed the survey. Researchers decided to enrich the student pool by keeping those survey responses even though their two schools were not, in the end, case schools.

Researchers asked Diploma Coordinators to forward the emailed invitation to participate in the student survey to IB Diploma Programme students who were at least 18 years old and in their final year of school. Within the invitation was a link to the survey instrument through the online platform, SurveyMonkey. Researchers received 59 responses from five schools, i.e., the three case schools and two others. Two-thirds (66.1%) of the student responses were from Case School B. An even larger majority, 47 (89.8%), of student survey respondents were pursuing the Bilingual Diploma, with only six respondents (10.2%) pursuing the Standard Diploma. Because such a small proportion of the student survey respondents were pursuing the Standard Diploma, researchers abandoned plans to compare the responses of BD vs. SD earners.

Methods for analysis of the student survey data were parallel to those used to analyze the staff survey data, described above.

*Student background information*

The survey collected background information about the student respondents. A total of 67.8% of respondents reported living in their current country their whole lives, while the remaining reported to have lived in their current country for varying lengths of time: eight (13.6%) for 1-5 years, eight (13.6%) for 6-10 years, and three (5.1%) for more than 10 years. A vast majority (75.3%) of survey respondents have attended their current school for 6 or more years, with the remainder reporting attendance of 1 year (3 students, 5.1%) 2 years (4 students, 6.8%), 3 years (4 students, 6.8%), or 4 years (3 students, 5.1%).

Roughly two-thirds of the student survey respondents have lived in their current country their whole lives. For Case School A, a Spanish-speaking country in the IB Americas region (IBA), one of six students was born outside the country in the same IB region. For Case School B, another Spanish-speaking country in the IBA, 29 of 39 of its survey respondents were born in that country, with the remaining 10 born in different countries: five were born in the United States or one of its territories, four elsewhere in the Americas, and one in Europe. Although not typical of the school's population, all of the student respondents from the European Case School C in the IB Africa, Europe and Middle East (IBAEM) region were born outside that country, four on the same continent and two on other continents. The remaining eight students represented two European schools, one from School D and seven from School E. Three were born in the country of the school and five elsewhere; of these five, three were born in the same IB region and two outside.

A large majority, 86.0% (n=49), of student survey respondents reported having studied their home languages in school for ten or more years. The remaining eight students who answered this question reported having studied their first language for lengths of time ranging from one to nine years. The most commonly reported first language was Spanish for 43 of the 59 students who responded to the survey. Most of these students, 48 of 59 (81.4%), spoke and had studied at least two languages beyond their first language.

Researchers asked students in what country or countries they would like to attend college or university. Over two-thirds (69.5%) named countries other than their current one, the largest number naming the United States; 15.3% were undecided between their current country and another; and the same percentage named their current country. The numbers shifted a bit when it came to the country or countries in which they would like to pursue their careers, with just over half (54.2%) naming a country other than their current one. The percentages of students undecided between their current country and another was a bit higher at 22.0%, with a similar percentage (23.7%) naming their current country. The student survey respondents certainly appear to be an international group when looking at their higher education and career

destinations. When asked about their planned area of study, students' interests ran the gamut of possibilities. Responses were diverse, from film to sciences, and included architecture, business and management, economics, law, medicine, engineering, and just a few undecided.

Students were asked to identify from a checklist of seven options in what ways they heard about the opportunity to study for the IB Bilingual Diploma, 79.7% of the respondents indicated *Diploma Coordinator at my school*. Other sources of information, in descending order, were *other students at my school* (50.8%), *written information about the program* (35.6%), and *other staff at my school* (30.5%). Much smaller percentages of respondents also identified *online information* (16.9%), *my parents heard about it* (13.6%), and *staff at a previous school* (8.5%). Three students mentioned other sources of information, including an older sibling who had taken the Bilingual Diploma, meetings, and one student stated, "It was widely talked about and offered in my school."

#### *Factors impacting students' decision to pursue the Bilingual Diploma*

*Encouraging Factors:* Student survey respondents were asked what factors encouraged them to pursue the Bilingual Diploma. Nine possible reasons were presented with the response options of "not at all," "to a small extent," "to a moderate extent," and "to a great extent." To facilitate understanding of patterns, the responses to "to a great extent" and "to a moderate extent" were combined to give a sense of the support for that factor. Similarly, responses to "not at all" and "to a small extent" were combined to indicate relative lack of support for the factor.

According to student survey respondents, the factors encouraging pursuit of the Bilingual Diploma to a great extent were, first, *future career options* (72.4%), followed by *college admission requirements* (58.6%), *desire to be multilingual* (55.2%), and *Bilingual Diploma promoted at the school level* (36.2%). When adding in responses of "to a moderate extent," the pattern was similar: The factor with the highest percentage of supportive responses was *future career options* (87.9%), followed by *desire to be multilingual* (82.8%), *college admission requirements* (77.6%), and *Bilingual Diploma promoted at the school level* (67.2%). Half or more of respondents selected all but one of the remaining factors as encouraging them to a great or a moderate extent to pursue the Bilingual Diploma: *Variety of languages offered* (63.8%), *prior language learning experience* (62.3%), *curriculum requirements at the national level* (56.9%), *languages commonly used in the country* (53.5%). Respondents gave *curriculum requirements at the local (district or school) level* just 44.8% of the combined responses of to a great or moderate extent.

When asked whether there were other factors that encouraged students to pursue the Bilingual Diploma, 16 students wrote substantive entries. Several mentioned some variation of the challenge, leading to academic growth, a better education, meeting higher-level requirements,

experiencing new techniques, and becoming a better student. One student mentioned that the advanced classes are more interesting. One student mentioned recognition for pursuing the Bilingual Diploma. Another cited the benefit of receiving college credit for meeting language/humanities requirements, “which represents an extrinsic motivation for less money spent in college tuition and the possibility of graduating (from college) early.” Another student mentioned that the Bilingual Diploma “looks better on your CV.” Also noted were personal growth and development generally, becoming a more rounded person, being well-prepared for college success, developing time management skills, and increasing maturity. One student mentioned the improvement of English to the level of her/his first language skills, while another stated, “knowing another language gives extremely interesting insight on the culture and the people speaking it; that is the only reason I am taking the BD.”

*Discouraging Factors:* Survey respondents were asked to what extent several factors might discourage them from pursuing the Bilingual Diploma. As in the previous question, a list of possible factors was presented with the response options of “not at all,” “to a small extent,” “to a moderate extent,” and “to a great extent.” Again, to facilitate understanding of response patterns, the responses to “to a great extent” and “to a moderate extent” were combined to give a sense of the support for that factor. Similarly, responses to “not at all” and “to a small extent” were combined to indicate relative lack of support for the factor.

High percentages of students responded to most of these factors at the “not at all” and “to a small extent” levels. Strongest disagreement, or lack of support, at approximately equal levels, was for *not motivated to be multilingual* (89.6%, with 74.1% indicating “not at all”), *future educational or career goals do not necessitate bilingual proficiency*, (89.6%, with 60.3% indicating “not at all”), and *lack of prior language learning experience* (89.6%, with 58.6% indicating “not at all”). Following in descending order from there were *no need to be recognized as multilingual* (84.2%), *few languages offered* (82.7%), and *lack of information about the program at the school level* (81.0%); following more distantly were *scheduling considerations* (56.9%) and *competing demands of other content coursework* (51.8%).

When asked whether there were other factors that might discourage students from pursuing the Bilingual Diploma, 10 students made entries. Cited most frequently were two related issues, the IB workload and the time involved in IB courses. For example, one student wrote, “The amount of work required being too high – I am prepared to do quite a large amount of work, but not willing to let it take over everything else.” Other factors mentioned as possibly discouraging students from pursuing the BD were the lack of IB subjects/courses in their school, competition from Advanced Placement, and the lack of recognition of IB or the BD in some countries.

*Benefits of earning the Bilingual Diploma*

The student 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 factors listed as possible benefits from 1, most important, to 6, least important. See Table 19 below. Of the 58 respondents who answered this question, the highest percentage, 27.6%, ranked *improves future educational opportunities for students* as the most important. Following close behind were *improves student academic performance*, second with 22.4% ranked highest, and *improves future career opportunities for students*, with 19.0% top ranking.

**Table 19: Student opinion about most important benefits of earning the Bilingual Diploma \***

Benefits	% rank	% rank	% rank	Mean rating	n
	1	2	3		
Motivates students to be multilingual	13.8	8.6	13.8	3.97	58
Offers a rigorous way to learn another language	8.6	13.8	6.9	4.14	58
Enhances the quality of the overall school curriculum	8.6	8.6	20.7	3.98	58
Improves student academic performance	22.4	6.9	25.9	3.31	58
Improves future educational opportunities for students	27.6	31.0	15.5	2.62	58
Improves future career opportunities for students	19.0	31.0	17.2	2.98	58

\* Ranking is from 1, most important, to 6, least important. To simplify presentation of the data, only the top three ranks are shown in this table.

Combining the percentages of respondents who ranked benefits first, second or third in importance, the two factors at the top were *improves future educational opportunities for students* (74.1%) and *improves future career opportunities* (67.2%).

Students were also asked the open-ended question, “What important benefits of the Bilingual Diploma are not listed above?” Twenty-two students identified other benefits. Cited most frequently were aspects of personal growth, including time management, planning and organizational skills, as well as leadership skills. Three students mentioned language development and an additional three noted writing and speaking skills. Six students noted various aspects of academic preparation for college, and one mentioned that, “it makes the process of college application much easier for both the student and the parent(s).” One student wrote, “The Bilingual Diploma helps students [become familiar] with the culture and unique traits of the language that they are studying, which adds a layer of perspective to the way in which the students approach every aspect of the given subject...” On a related note, another student wrote, “Increases understanding of other cultures – something that we truly need nowadays.”

The survey asked students, as it did staff, “In your opinion, which of the following benefits of earning the Bilingual Diploma are the most important to parents?” Again, they were asked to

rank the factors listed as possible benefits from 1, most important, to 6, least important. See Table 20 below. Of the 58 respondents who answered this question, the highest percentage, 37.9%, ranked *improves future career opportunities for students* number 1. The next item, with 20.7% of the number 1 rankings, was *improves future educational opportunities for students*.

**Table 20: Student opinion about benefits of earning the Bilingual Diploma most important to parents\***

Benefits	% rank	% rank	% rank	Mean rating	n
	1	2	3		
Motivates students to be multilingual	17.2	15.5	10.3	3.64	58
Offers a rigorous way to learn another language	3.4	12.1	15.5	4.22	58
Enhances the quality of the overall school curriculum	6.9	8.6	24.1	4.14	58
Improves student academic performance	13.8	8.6	29.3	3.33	58
Improves future educational opportunities for students	20.7	39.7	6.9	2.79	58
Improves future career opportunities for students	37.9	15.5	13.8	2.88	58

\* Ranking is from 1, most important, to 6, least important. To simplify presentation of the data, only the top three ranks are shown in this table.

Combining the percentages of respondents who ranked benefits first or second in importance, the same two factors were at the top, *improves future educational opportunities for students* (60.4%) and *improves future career opportunities* (53.4%). Adding third in importance to first and second, the same two benefits were ranked highest with about 67% each; a third response, *improves student performance and cognitive outcomes*, also garnered 56.7% of the ratings.

In response to the question, “Which benefits of earning the Bilingual Diploma not listed above are the most important to parents?” 15 students provided comments. Most frequent responses were related to receiving the best education available and being prepared for higher education and career opportunities. Close behind, however, were benefits related to personal growth, such as maturity and responsibility, and independence, along with time management and organizational skills. One student stated, “Most parents think it is going to increase the chances of getting a merit scholarship. It does not.”

The benefits students perceive as important and that they believe are important to parents are consistent with those reported by staff.

#### *What is working well?*

Most respondents answered a series of open-ended questions. A summary of their comments follows. When asked what they think is working well in their school in terms of providing opportunities and support for students to pursue Bilingual Diplomas, over 50 students offered a variety of responses. Two strong themes emerged, however. One was the qualified and well-prepared teachers and their support for IB students. “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 out his/her problems and helping him to do the best he/she can in every assessment of every subject." The other was school support and encouragement of bilingualism and the Bilingual Diploma. "The expertise of professors and the many years of experience of the school in general with the IB make the student's experience much smoother. However, the key factor in the success of Bilingual Diplomas is that we are taught since a young age how to manage ourselves with 2-4 languages so it becomes something natural for most of us."

*What are the challenges?*

Another open-ended question asked of students on the survey was, "In your school, what are the biggest challenges to providing opportunities and support for students?" The nearly 50 responses fell into several themes, including general workload and time demands. A few students mentioned that their school is small, with few teachers and scarce resources, therefore few options and languages are offered. One student stated, "There are few teachers, so schedules cannot always be made accordingly for a student that wants to pursue the bilingual diploma." A few students from other schools also mentioned the limited number of languages offered for various reasons. A small number of students from one school stated that their school was relatively new to IB and that, due to the lack of experience with the program; there were some issues with scheduling and organization. A couple of frustrations emerged among students at one of the case schools. One was with the apparent lack of school or staff knowledge or understanding of IB requirements. The other, perhaps related, was the competing demands of IB and the national curriculum requirements and the associated workload and time demands on students. "My school does not offer a great variety of classes, especially Higher Level ones, for students to choose from. Also, the teachers are not completely familiarized with the program itself often confusing the requirements of the IB with the national standards. The amount of classes that are unnecessary for the IB that we take in order to follow the Ministry of Education's orders are also way above the limit."

*How to increase the number of students pursuing BD?*

When asked, "In your school, what changes do you think would contribute most to increase the number of students pursuing Bilingual Diplomas?" 51 students made several suggestions, including offering more languages. One was improving teacher training and qualifications. Another was to improve teacher understanding of IB requirements. One student commented, "New teachers need to be hired with the appropriate training to carry on with the program, or train the teachers that already are working here. I think that the IB is very ambiguous about what they want from certain teachers, which is why some of them are confused about what the program wants from them and from the students." Because of the competing demands of IB and the national curriculum in one case school, already mentioned, students suggested reducing the amount of non-IB work and scheduling. Finally, students suggested better preparation of students for the IB

program, including providing information about IB and BD in grades 9 and 10 for parents and students that emphasizes the importance of a BD. Another student suggested, "I think that if my school wants to increase the number of students pursuing the Bilingual Diploma they need to implement a better academic foundation to the younger students that will become Diploma candidates. Many times, the lack of academic preparation/rigor in the student is what prevents him or her from becoming an IB Diploma candidate."

*Anything else?*

Finally, students were asked, "Is there anything else you would like us to know about the IB Diploma Programme or the Bilingual Diploma in your school?" Of 21 substantive comments, most summarized or reiterated points previously made. Most frequent were generally positive statements about IB or the Bilingual Diploma, such as, "It's challenging but exciting!" and "The program is great and teachers are also pretty good overall," and "The academic opportunities it offers for attending future universities."

Some specific concerns were mentioned, such as the lack of variety or choices available, inadequate information about the courses offered or about the program requirements, or the inequality of two different language versions of a particular course. One student said, "I think the IB authorities should supervise more closely the way some teachers teach, because honestly I think there are certain things that they are doing wrong." Another student suggested, "It should be change[d] to AP."

Overall, students feel that they are working hard in a time-consuming and demanding program with the support and guidance of their teachers. They believe they are, learning a great deal both academically and personally, and that IB and the BD are preparing them well for their academic and professional future, whether in their home countries or abroad.

### **Synthesis of Findings and Recommendations**

The use of multiple methods allows for research questions to be approached from numerous angles and often provides greater insight into complex systems than does the use of a single method. This section of the report returns to the original research questions, and synthesizes the results from the data and various methods used to analyze the data. Considered in this section are: (i) reasons for providing course offerings which support the BD; (ii) challenges in providing opportunities for the BD; (iii) supports for high proportions of BD earners; (iv) characteristics of countries relevant to BD completion; (v) stakeholder perceptions; (vi) language backgrounds of BD and SD candidates; and (vii) the relative performance of BD and SD candidates.

### **Provide course offerings which support the BD**

In order for students to be able to pursue the Bilingual Diploma, their school must provide appropriate course offerings which allow them to meet the BD criteria—either a sufficient number of languages offered in group 1 such that students can complete two group 1 courses, or offerings in groups 3 and/or 4 which allow students to complete these courses in a language other than their nominated group 1 language. While the decision to pursue the BD is ultimately the decision of the student, the *opportunity* to make that decision is very much tied to the school. For instance, Case School A offers courses in English and Spanish. “Students take English A and Biology in English, so we are comfortable asking them to complete the IBDP so they may be awarded a BD,” explained one administrator.

Interest and opportunity together were the most frequently cited factors which encourage schools to make the BD an option for their students. In the survey of 127 staff members across 12 countries, 75% or more of staff survey respondents indicated that *student interest*, *availability of qualified teaching staff*, and *parent interest* “encourage (their schools) to provide language courses for students to pursue Bilingual Diplomas” to a great or a moderate extent. In addition, two-thirds to three-quarters cited *goals and priorities of school leadership*, *curriculum requirements*, and *languages commonly used in your country* to a great or a moderate extent. In response to a follow-up open-ended question, respondents also mentioned factors such as: bilingualism being part of the school’s mission; the nature of an international school; a bilingual school and/or country; preparation for college admission or study abroad; and the inherent value of second language acquisition in terms of both participating in a globalized world and cognitive advantages demonstrated through brain research.

### **Provide Bilingual Diploma opportunities**

Respondents to the staff survey were also asked about the challenges they encounter in providing Bilingual Diploma opportunities to their students. To some extent, the challenges identified represent the converse of the factors which encourage students—availability of qualified teachers, and a lack of interest or engagement on the part of students. Additionally, schools identified logistical challenges, including scheduling considerations, small class sizes, including those associated with low or declining enrollment, and budget constraints. In their interviews, case schools mentioned the competing demands of the national curriculum. Finally, the language background of students was mentioned as a challenge. This finding suggests that the BD is perhaps welcomed as an opportunity by students who are proficient in more than one language at the onset of the DP, but that it is not viewed as stepping stone to bilingualism by students who do not already have a high level of proficiency in a second language.

### **Improve school level factors that support the Bilingual Diploma**

High existing degrees of bilingualism or multilingualism were cited in surveys by both IBDP staff and by students as likely causes for high proportions of Bilingual Diplomas. High degrees of bilingualism in a school population may emerge either from living in a bilingual or multilingual country or region, or may occur in student populations in international schools. Students and staff also value this bilingualism and multilingualism, not only for its inherent benefits, but also for study at home or abroad and for opening future career opportunities.

School level policies on language education also played a factor in the proportion of BDs awarded at the school level. In two of the three case schools studied (A & B), 100% of the students earned Bilingual Diplomas. From the administrator interviews, researchers discovered that neither bilingual school offers the SD as an option because students take classes in both English and Spanish. Therefore, any student interested in the IBDP will naturally have the skills necessary to complete the BD. Further research on the distribution of bilingual schools across IBDP countries may shed additional light on whether this is a generalizable trend—do those countries with high proportions of BD candidates also have high proportions of bilingual schools?

### **Consider country characteristics that affect pursuit of the Bilingual Diploma**

High existing degrees of bilingualism or multilingualism in student populations is often related to the country in which students are located. Countries in which English is not a majority mother tongue have higher rates of bilingualism—these countries also have higher proportions of BD students than countries in which English is the dominant language. Survey respondents from such countries commented that their national languages were not spoken elsewhere, so proficiency in an international language was critical to their student populations. Teachers in Case School C explained, “Many countries are proud of their language, and families want their kids to speak multiple languages. Parents speak multiple languages, so kids want to do that, too.”

An additional key factor is national curriculum requirements, cited by all three case schools. In all three countries, students must take additional courses beyond the six required by IB in order to meet the standards for graduation. Therefore, the IBDP program overall is more demanding than the standard high school diploma offered by the schools in these countries. For example, in countries like the United States without a national curriculum, students need only take the six core IB courses in order to earn a high school diploma. In other countries, however, students might be required to take two or more additional courses beyond IB core courses to satisfy national requirements. Therefore, national education policies can affect students’ decisions on whether or not to participate in the DP. If additional courses are required, some

students may choose not to pursue the DP. Merging the national requirements with those of IB could lighten the workload of the IBDP program for some students, which may encourage more students to pursue it.

### **Consider factors that affect the perception of parents**

Although several possible benefits were suggested in survey questions, and others generated by respondents, two stood out as most important to staff and students, as well as in what those groups thought were most important to parents. These benefits were *improves future educational opportunities for students* and *improves future career opportunities for students*.

Other benefits ranked included *motivates students to be multilingual*, *enhances the quality of the overall school curriculum*, *offers a rigorous way to learn another language*, and *improves student academic performance*.

An important benefit of the BD mentioned by several staff and student survey respondents related to 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. One teacher explained, “The ability to understand language is the ability to understand each other. The IB program builds on that.” Related aspects include becoming an international citizen, understanding different cultures, and getting to know, accept, and appreciate each other. Elaboration of cognitive benefits included development of higher order thinking skills, abstract reasoning skills, writing, critical thinking, creativity, and becoming a lifelong learner.

For those students motivated to study internationally in the United States, it was clear that having a fluency in two or more languages would make them more competitive among their peers. Furthermore, an administrator in Case School A reported that scoring a high level of points on the IBDP exam would enable students to gain the attention of more prestigious private schools in their home country. The teacher, a parent of an IBDP candidate, noted that parents believe that the DP curriculum and standards are high quality and adequately prepare students for their freshman year of college. Additionally, several teachers in Case School C mentioned that having a high academic credential in two languages was impressive in their country. “In countries where jobs are few and qualified applicants are many, a BD can set students apart and improve career options,” stated one teacher.

### **Consider the Language backgrounds of Bilingual and Standard Diploma Candidates**

Language background data were analyzed for the 13 schools which agreed to provide student data for the student record analysis portion of the study. Upon examination of the student

language background and performance records provided by the schools, it became apparent that the IBIS data were a more reliable and comparable set of data regarding both language background and student performance, and hence analysis was restricted to these data.

The clearest finding which emerges from the IBIS data on students at the 13 schools analyzed is that mother tongue English speakers are very unlikely to pursue the Bilingual Diploma. Of 108 mother tongue English speakers, only 2 (1.8%) were BD candidates. In countries where English is not the dominant language, mother tongue speakers of the national language of that country are very likely to strive for the bilingual qualification, with rates of up to 90% for some languages. Interestingly, in non-English speaking countries, minority language speakers appear to be less likely to seek the BD.

What remains unclear, however, is how generalizable these trends are. None of the fully bilingual schools were located in primarily English speaking countries, and three of the eight schools in non-English speaking countries were also bilingual schools. The finding on minority language students in non-English speaking countries is based on an analysis of three schools—in other words, in our sample, bilingual schools are found in countries where English is not the national language. Further analysis of a larger set of IBIS data would provide greater insight on whether these trends apply across IB or whether they are simply traits of the schools in the sample.

### **Consider the performance of Bilingual and Standard Diploma candidates**

Data on student performance were drawn from IBIS data on all candidates in the 13 schools which agreed to participate in the student record portion of the study. As with the language background data, student record data provided by schools was unfortunately not suitable for analysis across schools, due to the use of different measures, scales, and types of assessment across schools.

A total of 323 student candidates' records were examined, covering 1,911 examinations. The student candidates were evenly split between BD and SD candidates. In terms of overall performance, there was very little difference in academic performance between the BD and the SD candidates. Bilingual Diploma candidates slightly outscore Standard Diploma candidates in groups 3 (Individuals and societies), 4 (Experimental sciences), and 5 (The arts); Standard Diploma candidates have a slight edge in group 6 (The arts).

The largest performance differences are observed in the language examinations in group 1, Languages and literature, and group 2, Language acquisition. Standard Diploma candidates have higher performance, on average, in group 1 subjects, and Bilingual Diploma candidates have higher average scores in group 2. These differences appear to be primarily attributable to test-

taking patterns. Bilingual Diploma candidates are far more likely to take more than one language in group 1 (252 scores recorded among 163 BD candidates, and 163 scores among 160 SD candidates)—while their scores are lower, they are attempting multiple languages at a more challenging level than the SD candidates. The performance of BD candidates in group 2 is higher than that of SD candidates, however in this group, test taking numbers are more even (129 examinations among 163 BD candidates, 149 examinations among 160 SD candidates). Interpretation of these data suggests that the Bilingual Diploma candidates may be strategic language test-takers, attempting both group 1 and group 2 examinations in their weaker language (and presumably selecting which will contribute to their diploma based on examination scores).

The strongest inference which emerges from a consideration of all seven research topics is that *bilingual students pursue Bilingual Diplomas*. Staff cite existing populations of bilingual students in countries or regions where bilingualism or multilingualism is prevalent as factors which contribute to high degrees of BDs—and particularly where bilingualism consists of a local/national language (such as Swedish or Greek) plus an international language (most often English). Such conditions are also likely to correlate with availability of qualified teachers, and strong interest from students and parents. IBIS data converge on similar interpretations, indicating that students who already speak an international language (English) are far less likely to seek an additional language qualification, and that in our sample, at least, BD candidates come from language backgrounds other than English. Interestingly, Case Schools did not find implementation of the BD more difficult than the SD, and the findings do not indicate that students were dissuaded from pursuing the BD because of its perceived difficulty. Data on student performance, furthermore, indicate few differences between the performance of BD and SD candidates; the differences which exist are primarily due to course-taking patterns in the language courses in groups 1 and 2, but are even when viewed across the entire set of subject courses 1-6.

### **Conclusion**

The International Baccalaureate's Bilingual Diploma provides an opportunity for students to earn an IBDP qualification that highlights their abilities in more than one language. This study has examined the implementation and adoption of the BD across a subset of countries which participate in IB's programs.

Specifically, this study examined IB students' perceptions and motivation for pursuing the Bilingual Diploma as well as factors that encourage or discourage them from pursuing the BD. After providing an outline of the iterative study methodologies, results were provided from (i) surveys of administrators and teachers in IB programmes; (ii) student records from a subset of

the surveyed schools; and (iii) detailed case studies of three schools, encompassing staff interviews and student surveys.

The study findings suggest 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 are in situations where there is value in acquiring English as an international language; in these settings, there are school supports and available qualified staff for students to pursue high level academic learning in a second language. In contrast, the findings suggest that factors such as English as a mother tongue and lack of prior language learning in countries where English is widely spoken results in students being less likely to pursue the BD.

Future research that examines the nature of bilingual schooling in countries that are high frequency/low percentage like the United States, United Kingdom, and Canada would contribute to understanding factors that make a bilingual diploma attractive. Similarly, further analysis of the IBIS data could provide additional information about the IBDP choices of linguistic minority students who are being educated in English dominant countries. IBIS data additionally offers the possibility of in-depth analysis of differences between BD and SD earners by variables such as country, school type, language background and academic performance. Additional research with schools that offer the IB PYP, MYP and DP might also shed light on whether higher percentages of students pursue the BD if there is coherence between programs in their school. Finally, given that BD students and staff cite higher education and employment opportunities as important factors in their choices to pursue or offer the BD, an evaluation of the understanding and perspectives of higher education institutions and employers regarding bilingual qualifications would provide insight into how the BD qualification provides value to students upon graduation.

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## Appendix: Research Instruments

### 1. Staff Survey Instrument

International Baccalaureate (IB) has asked The George Washington University Center for Equity and Excellence in Education (GW-CEEE) to conduct a research project entitled “International Baccalaureate Bilingual Programme Study” that examines factors relating to the Bilingual Diploma. As part of this study, we want to understand aspects that encourage or discourage students from pursuing the Bilingual Diploma.

The purpose of this survey is to gather information and opinions from the Heads of school, IB Diploma Coordinators and IB teachers about the IB Bilingual Diploma Programme in their schools. The data obtained from the survey will go to the researchers and not to IB; while the results will be shared with IB, we will not identify the respondents.

1. Please select the country where your school is located.  
Argentina, Canada  
Dominican Republic, Georgia, Greece  
Lithuania, Nicaragua, Paraguay  
Poland, Sweden  
United Kingdom, United States
2. For how many years have you been associated with the IB Diploma Programme?
  - a. This is my first year
  - b. 1-5
  - c. 6-10
  - d. 11-15
  - e. 16 or more
3. What is the name of your school?
4. Please indicate your primary role.
  - a. Principal or head of school
  - b. IB Diploma coordinator
  - Other roles (please specify)
5. To what extent does each of the following factors encourage your school to provide language courses for students to pursue Bilingual Diplomas?
  - a. Goals and priorities of school leadership
  - b. Availability of qualified teaching staff
  - c. Parent interest
  - d. Student interest
  - e. Curriculum requirements
  - f. Languages commonly used in your country
  - g. Online language course options
  - h. Other\_\_\_\_\_

What other factors encourage your school to provide language courses for students to pursue Bilingual Diplomas?

6. To what extent does each of these factors prevent your school from providing language courses for students to pursue Bilingual Diplomas?
  - a. Goals and priorities of school leadership
  - b. Lack of available qualified staff
  - c. Lack of parent interest
  - d. Lack of student interest
  - e. Curriculum constraints
  - f. Lack of online language course options
  - g. Lack of availability of resources and materials
  - h. Scheduling considerations (e.g., need to schedule language course around other course requirements )

What other factors prevent your school from providing language courses for students to pursue Bilingual Diplomas?

7. To what extent does each of the following factors encourage students at your school to pursue the Bilingual Diploma?
  - a. Curriculum requirements at the local (district or school) level
  - b. Curriculum requirements at the national level (e.g., educational policies)
  - c. Languages commonly used in the country
  - d. Variety of language courses offered in the school
  - e. Bilingual program promoted at the school level
  - f. Prior language learning experience
  - g. Online language course options
  - h. College admission requirements
  - i. Future career options
  - j. Desire to be multilingual

What other factors encourage students at your school to pursue the Bilingual Diploma?

8. To what extent do the following factors discourage students at your school from pursuing the Bilingual Diploma?
  - a. Scheduling considerations
  - b. Competing demands of other content coursework
  - c. Few language courses offered in the school
  - d. Lack of information about the program at the school level
  - e. Lack of prior language learning experience
  - f. Lack of online language course options
  - g. Future educational or career goals do not necessitate bilingual proficiency
  - h. Not motivated to be multilingual
  - i. No need to be recognized as multilingual

What other factors discourage students at your school from pursuing the Bilingual Diploma?

9. In your opinion, which of the following benefits of earning the Bilingual Diploma are the most important? Please rank the importance of the following benefits of earning a Bilingual Diploma with 1 being the most important and 6 being least important.
  - a. Motivates students to be multilingual
  - b. Offers rigorous means to learn languages
  - c. Enhances the rigor of the school curriculum
  - d. Improves student performance and cognitive outcomes
  - e. Improves future educational opportunities for students (i.e., university)
  - f. Improves future career opportunities for students
10. What important benefits of the Bilingual Diploma are not listed in Question 9 above?
11. In your opinion, which of the following benefits of earning the Bilingual Diploma are the most important to parents? Please rank the importance of the following benefits of earning a Bilingual Diploma with 1 being the most important and 6 being least important.
  - a. Motivates students to be multilingual
  - b. Offers rigorous means to learn languages
  - c. Enhances the rigor of the school curriculum
  - d. Improves student performance and cognitive outcomes
  - e. Improves future educational opportunities for students (i.e., university)
  - f. Improves future career opportunities for students
12. What important benefits of the Bilingual Diploma are not listed in Question 11 above the most important to parents?

*Please answer the following questions with several sentences or paragraphs.*

13. In your school, what aspects do you think are working well in terms of providing opportunities and support for students to pursue Bilingual Diplomas?
14. In your school, what are the biggest challenges to providing opportunities and support for students to pursue Bilingual Diplomas?
15. In your school, what changes do you think would most increase the number of students pursuing Bilingual Diplomas?
16. Is there anything else you would like to add about aspects that encourage or discourage students from pursuing the Bilingual Diploma?

Additional questions asked of the Diploma Coordinator and teachers

1. Please provide email addresses for at least one IB teacher per subject group in your school. These email addresses will be separated from your other survey responses and will not be associated with them in any way. We will survey a sample of IB teachers after heads of school and IB Diploma coordinators have responded.
2. What subjects do you teach?

## 2. Interview questions for Case Schools

*Some questions were modified based on whether the school offered both the Bilingual Diploma and the Standard Diploma.*

1. Please tell us more about your role at the school and the IB program there? [How long have you been working with the IB program?]
2. Do you know which of your students are pursuing the Bilingual Diploma vs. the Standard Diploma? How do you know? Do you track the students? [If not, why not?]
3. What differences, if any, do you see between your students who pursue the Bilingual Diploma and those who pursue the Standard Diploma, both when they enter and when they complete the Diploma Programme? Think or example, in terms of academic interests, background or performance; creativity; goals; social awareness/ global citizenship
4. In your opinion, what are the advantages for students pursuing the bilingual diploma versus the standard diploma ,if any? [Would you give examples?]
5. In response to our survey, some educators suggested that students are discouraged from pursuing the Bilingual Diploma due to certain factors. Please comment on whether you believe each of these is a factor at your school:
  - a. The BD course workload
  - b. IB assessment criteria
  - c. Costs associated with IB [Is there a special cost associated with the BD beyond the regular fees?]
  - d. Coherence of PYP, MYP and DP
  - e. Certification, or lack thereof, of language proficiency
  - f. Relationship to national educational requirements
6. What, if anything, would you suggest to the IB Organisation to improve the Diploma Programme in your country or school?
7. What suggestions do you have to improve the Bilingual Diploma internationally?
8. Is there anything else you would like to tell us?

## 3. Student Survey Instrument

*The International Baccalaureate (IB) organization has asked The George Washington University Center for Equity and Excellence in Education (GW-CEEE) to conduct a study that examines factors relating to the IB Diploma Programme. The purpose of this survey is to gather information and opinions from IB students about the IB Bilingual Diploma implementation in schools. We want to understand what encourages or discourages students from pursuing the IB Bilingual Diploma in your school.*

1. Please tell us the country where your school is located.
2. For how many years have you lived in this country?  
Choices: Less than 1 year, 1-5 years, 6-10 years, more than 10 years, all my life
3. Including the current year, for how many years have you attended this school?  
Choices: 1 year, 2 years, 3 years, 4 years, 5 years, 6 or more years
4. Which diploma are you pursuing?  
Bilingual Diploma, standard diploma
5. In what country were you born?
6. What is your first language?
7. If you have studied your first language in school, for how many years?  
Choices: 1, 2, 3, 4, 5, 6, 7
8. What other languages do you speak and for how many years have you studied each language in school?
9. In which country or countries would you like to attend college/university?
10. What field or subject area(s) are you planning to study?
11. In which country or countries would you like to pursue your career?
12. In what ways did you hear about the opportunity to study for the IB Bilingual Diploma at your school?  
Choices: Written information about the program, Staff at a previous school, Diploma Coordinator at my school, Other staff at my school, Other students at my school, Online information, My parents heard about it, other
13. To what extent does each of the following factors encourage you to pursue the Bilingual Diploma?  
Choices: Not at all, To a small extent, To a moderate extent, To a great extent
  - Curriculum requirements at the local (district or school) level
  - Curriculum requirements at the national level (e.g., educational policies)
  - Languages commonly used in the country
  - Variety of languages offered
  - Bilingual Diploma program promoted at the school level
  - Prior language learning experience
  - College admission requirements
  - Future career options
  - Desire to be multilingual
  - Other
14. To what extent might the following factors discourage you from pursuing the Bilingual Diploma?  
Choices: Not at all, To a small extent, To a moderate extent, To a great extent
  - Scheduling considerations
  - Competing demands of other content coursework
  - Few languages offered

- Lack of information about the program at the school level
  - Lack of prior language learning experience
  - Future educational or career goals do not necessitate bilingual proficiency
  - Not motivated to be multilingual
  - No need to be recognized as multilingual
  - Other
15. In your opinion, which of the following benefits of earning the Bilingual Diploma are the most important? Please rank the importance of the following benefits of earning a Bilingual Diploma, with 1 being the most important and 6 being the least important.
- Motivates students to be multilingual
  - Offers a rigorous way to learn another language
  - Enhances the quality of the overall school curriculum
  - Improves student academic performance
  - Improves future educational opportunities for students (i.e., university)
  - Improves future career opportunities for students
16. What important benefits of the Bilingual Diploma are not listed above?
17. In your opinion, which of the following benefits of earning the Bilingual Diploma are the most important to parents? Please rank the importance of the following benefits of earning a Bilingual Diploma, with 1 being the most important and 6 being the least important.
- Motivates students to be multilingual
  - Offers a rigorous way to learn another language
  - Enhances the quality of the overall school curriculum
  - Improves student academic performance
  - Improves future educational opportunities for students (i.e., university)
  - Improves future career opportunities for students
18. Which benefits of earning the Bilingual Diploma not listed above are most important to parents?
- Please answer each of the following questions with one or more sentences.**
19. In your school, what aspects do you think are working well in terms of providing opportunities and support for students to pursue Bilingual Diplomas?
20. In your school, what are the biggest challenges to providing opportunities and support for students to pursue Bilingual Diplomas?
21. In your school, what changes do you think would contribute most to increase the number of students pursuing Bilingual Diplomas?
22. Is there anything else you would like us to know about the IB Diploma Programme or the Bilingual Diploma in your school?