

# Research summary

## *Language proficiency for academic achievement in the International Baccalaureate Diploma Programme*

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## Introduction

International Baccalaureate Diploma Programme (DP) candidates are socially, culturally and linguistically diverse, speaking more than 200 mother tongues. This study seeks to understand the factors which contribute to academic success for DP candidates who are studying in school settings where examinations and instruction are not in the student's mother tongue. The study is particularly pertinent as the population of second language learners in the DP grew by approximately half (51%) over the five years considered in this study (2008–2012).

## Research design

Part one of the study examines the relevant academic literature on promising practices that support second language students in acquiring academic language. The second part analyses five years of demographic and performance data on the population of second language learners in the DP. The third section of the study surveys a set of 300 DP schools from all three IB regions to investigate the kinds of language practices in place. This summary provides a brief overview of the first three sections of the report; for more detail, please see the full report.

## Summary of findings

### Part 1: Literature review

#### *Academic language*

There is a general consensus in the literature that there exists a specific style of speaking and writing which is appropriate for the school context of academic learning. Although researchers and theorists disagree on the exact nature of this language style, it is widely accepted that students who are learning in a second language require support in acquiring the **academic language** of the classroom (Anstrom et al., 2010; Bailey, 2007; Bailey, Butler, Stevens and Lord, 2007; Cummins, 1980; Dicerbo, Anstrom, Baker and Rivera, 2013; MacSwan and Rolstad, 2003; Schleppegrell, 2004).

Researchers have identified both general and subject-specific aspects of the academic language (Anstrom, 2010; Bailey, 2007; Bailey, Butler, Stevens and Lord, 2007; Dicerbo, Anstrom, Baker and Rivera, 2013; Schleppegrell, 2004). General academic language encompasses the language conventions which typically apply across subject matter, such as the introduction–body–conclusion pattern to writing an academic essay, or the formal transitional vocabulary used in academic text to move from one idea to the next (vocabulary such as “furthermore” or “nevertheless”). Subject-specific academic language includes not only the specialized vocabulary of the content areas, but also the subtle patterns of grammatical and discourse variance found between, for instance, an essay in economics and a report on a chemistry experiment.

#### *Pedagogy: Professional development and instruction*

In order to provide effective instruction in the academic language needed for success in the content areas, teachers must be prepared to integrate academic language teaching into the teaching of the disciplines (Bunch, 2013; Heritage, Silva and Pierce, 2007; Wong-Fillmore and Snow, 2000). High-quality professional development programmes targeting academic language instruction can result in improvements in student performance (Kim et al., 2011; Anstrom et al., 2010; Dicerbo, Anstrom, Baker and Rivera, 2013).

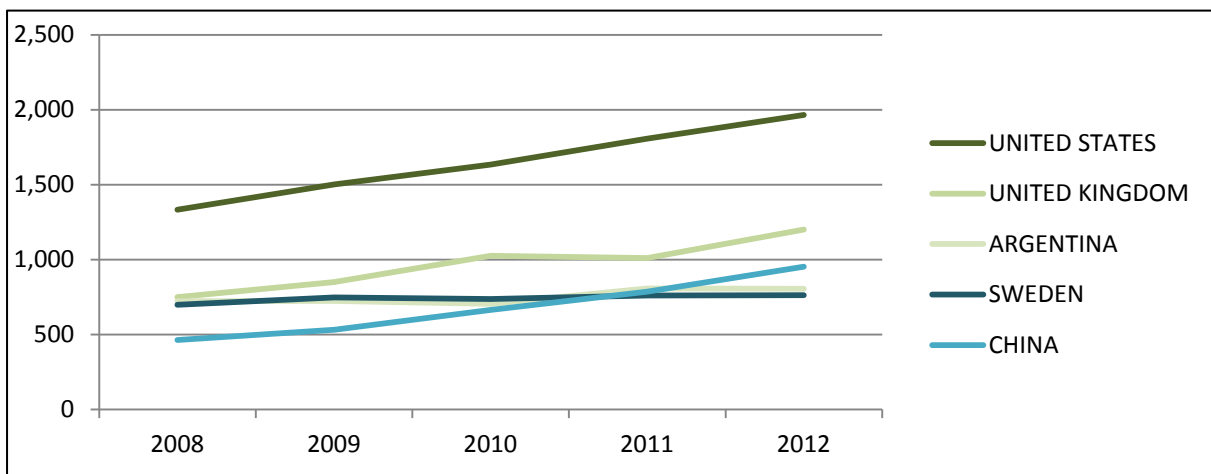
## Part 2: Review of data

### *Demographic profile of second language learners*

The review of data looked at more than 300,000 student examination records over a five-year period, drawn from the International Baccalaureate Information System (IBIS). The data included examination records for every instance in which the student’s mother tongue was not a match for the response language, including subject group 3 (individuals and societies), group 4 (sciences), group 5 (mathematics), and group 6 (the arts). Data on group 1 (language and literature) and group 2 (language acquisition) were not covered. Data covered 10 examination periods (the May and November sessions for each of the 5 years), for almost 90,000 individual DP candidates located in 133 countries across the three IB regions.

There was a steady rise in the number of second language candidates across these five years, with increases in both the May and November sessions. The total increase in candidates during this period stands at slightly more than half (51%).

These candidates spoke a total of 207 mother tongues. Spanish was the most common mother tongue, spoken by 20% of the second language candidates. Fourteen countries accounted for fifty per cent of the second language students. Figure 1 shows the number and increase of second language learners across the five years covered by this report in the five countries with the greatest number of second language candidates.



*Figure 1. Numbers of second language DP candidates in top five countries, 2008–2012*

Second language learners in these five countries, however, do not form equal shares of the DP population. They are a small share of the student population in the United States (only 3%), but form a majority of the student population in Sweden (61%) and Argentina (60%), as shown in Figure 2.

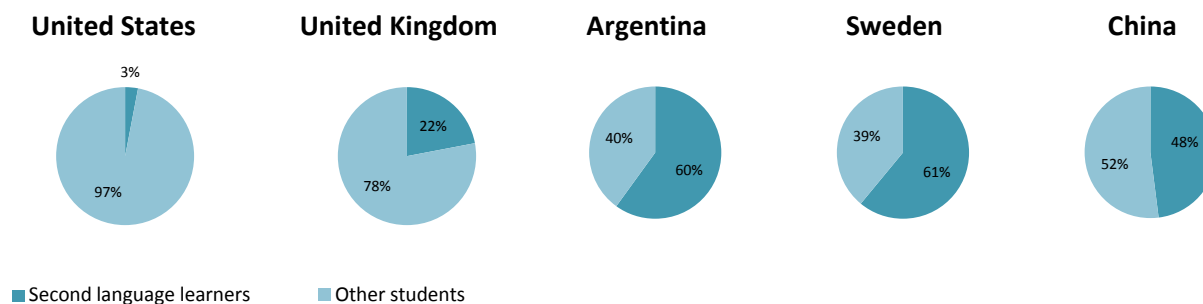


Figure 2. Proportion of DP students who are second language learners (2012), for the five countries with the greatest number of second language learners

#### Academic performance of second language learners

For each year, approximately 90% of DP candidates took examinations in the May session. The performance of second language DP candidates was, on average, higher than the performance of the group of all students for this session. Conversely, for the November examination session, second language students performed less well than all students (see Figure 3). The proportion of second language students who participate in the November examination sessions is in general around 10% of the total population of second language students in any given year. The researchers suggest exploring this finding further through additional research.

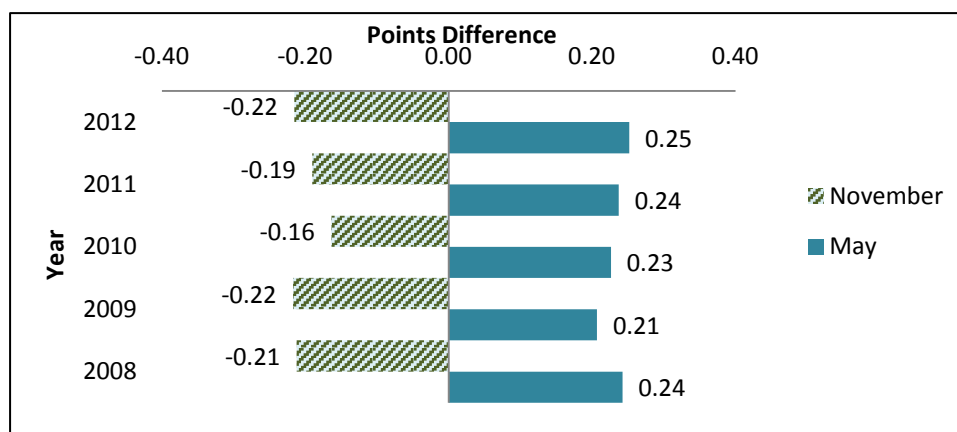


Figure 3. Points difference in average grade between second language DP candidates and all candidates, subject groups 3 to 6

### Part 3: Survey of academic language practices

A survey questionnaire investigating types of academic language practices was sent to 300 DP schools with second language students. There were 157 responses to the survey.

#### Identifying second language students

The survey investigated the extent to which schools were using appropriate practices to identify second language students. Analysis of the results indicates that schools are generally using recommended practices to identify second language students and have no pressing needs for assistance in this area. Schools tended to use tools such as teacher evaluations, language proficiency assessments, self-reports and parent reports. More than half (62.8%) of the schools that responded to the question used multiple data points to identify second language learners. This finding is consistent with best practices recommended by the literature (see for example Abedi 2008).

### *Assessment*

Schools were also asked about the extent to which they assessed second language students' language proficiency over the course of the DP. The survey results indicate that when schools are assessing the proficiency of second language students on an ongoing basis, they are doing so using appropriate measures. However, almost half of the schools which responded to the question (45%) provide no language proficiency assessment beyond initial screening for identification. This is potentially problematic in cases where teachers require ongoing information about students' language proficiency in order to be able to provide effective support.

### *Teaching capacity*

The optimal configuration of teacher resources and professional development for any particular school should be responsive to the linguistic context of the students in the school. Nevertheless, the survey results suggest that most schools assign primary responsibility for the needs of second language students to a small subset of their teachers rather than ensuring that all teachers in the DP have the skills and competencies to work with the second language population.

When the knowledge base and capacity to work with second language students is concentrated among a small set of teachers (often ESL or language specialists), students are unlikely to receive the kind of content area academic language instruction necessary to excel in areas like science or geography. In their open-ended comments, schools noted that professional development, and in particular, professional development targeted toward content area teachers, was an area of need.

### *Status of English*

The study indicated that schools are more likely to implement a greater number of practices which support second language students in environments where English is not the mother tongue. Specifically, in these environments, schools are more likely to use multiple elements in identifying second language students; are more likely to implement ongoing language proficiency assessments; and are more likely to have greater proportions of their teachers with training or backgrounds that support second language students, including a greater proportion of bilingual or multilingual staff.

## Recommendations

Based on the findings of the study, the researchers provide a number of recommendations for practice.

1. **Support mother tongue language and literacy.** When asked how the IB might better support schools, a number of respondents requested additional mother tongue resources.
2. **Ensure all teachers have preparation in academic language pedagogy.** Analysis of the survey results indicates that the know-how and capacity for working effectively with second language students often is restricted to a small pool of teachers within a school.
3. **Increase instruction in subject-specific academic language.** The vocabulary, grammatical features and discourse patterns of academic language vary across the content areas, and students need to develop competencies in the language styles of each of the content areas.
4. **Ensure IB support is flexible enough for diverse measures of language proficiency.** In order to support specific local needs, the IB's materials should remain flexible enough to operate with different language proficiency assessments and frameworks, chosen by local educators to meet their specific nexus of needs.

## References

- Abedi, J. 2008. "Classification system for English language learners: Issues and recommendations." *Educational Measurement: Issues and Practice*. Vol 27, number 3. Pp 17–31.
- Anstrom, K, DiCerbo, P, Butler, F, Katz, A, Millet, J and Rivera, C. 2010. *A review of the literature on academic English: Implications for K-12 English language learners*. Washington, DC, USA. The George Washington University Center for Equity and Excellence in Education.
- Bailey, AL. 2007. "Introduction: Teaching and assessing students learning English in school." In AL Bailey (Ed.), *The language demands of school: Putting academic English to the test*. (Pp. 1–26.) New Haven, CT, USA. Yale University Press.
- Bailey, AL, Butler, FA, Stevens, R and Lord, C. 2007. "Further specifying the language demands of school." In AL. Bailey (Ed.), *The language demands of school: Putting academic English to the test*. (Pp. 103–56.) New Haven, CT, USA. Yale University Press.
- Bunch, GC. 2013. "Pedagogical language knowledge: Preparing mainstream teachers for English learners in the new standards era." *Review of Research in Education*. Vol 37. Pp 298–341.
- Cummins, J. 1980. "The construct of proficiency in bilingual education." In JE Alatis (Ed), *Georgetown University Round Table on languages and linguistics: Current issues in bilingual education*. (Pp 81–103.) Washington, DC, USA. Georgetown University.
- Dicerbo, PA, Anstrom, KA, Baker, L and Rivera, C. 2013. "A review of the literature on teaching academic English to English language learners." *Review of Educational Research*.
- Heritage, M, Silva, N and Pierce, M. 2007. "Academic English: A view from the classroom." In AL Bailey (Ed.), *The language demands of school: Putting academic English to the test*. (Pp 171–210.) New Haven, CT, USA. Yale University Press.
- Kim, JS, Olson, CB, Scarcella, R, Kramer, J, Pearson, M, van Dyk, D, Collins, P and Land RE. 2011. "A randomized experiment of a cognitive strategies approach to text-based analytical writing for mainstreamed Latino English language learners in grades 6 to 12." *Journal of Research on Educational Effectiveness*. Vol 4, number 3. Pp 231–263.
- MacSwan, J and Rolstad, K. 2003. "Linguistic diversity, schooling, and social class: Rethinking our conception of language proficiency in language minority education." In CB Paulston and GR Tucker (Eds.), *Sociolinguistics: The essential readings*. (Pp 329–40.) Malden, MA:, USA. Blackwell.
- Schleppegrell, M. 2004. *The Language of schooling: A functional linguistics perspective*. Mahwah, NJ, USA. Lawrence Erlbaum.
- Wong-Fillmore, L and Snow, C. 2000. *What teachers need to know about language*. Special Report. Washington, DC, USA. ERIC Clearinghouse on Languages and Linguistics.

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