

## Bilingual education in the International Baccalaureate Primary Years Programme

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Summary developed by IB Research based on a report prepared by:  
**The American Councils for International Education**



## Background

This study examined the implementation of bilingual education programs in schools that offer the International Baccalaureate (IB) Primary Years Programme (PYP), focusing on forms, models and strategies used in bilingual PYP implementation. For this study, bilingual education was defined as the use of at least two languages of instruction for academic subjects, other than the language courses themselves (Skutnabb-Kangas and McCarty 2008). In this report, the “bilingual PYP” expression is used to indicate PYP schools that offer bilingual instruction.

The PYP, an educational framework geared toward primary school children (3–12 years old), focuses on the development of the whole child as an inquirer, both in the classroom and in the world outside. The PYP may be taught in any language, provided certain requirements are met, allowing teachers and students to understand fully all aspects of the programme. In PYP schools, students are offered the opportunity to learn more than one language from at least the age of 7. Schools are also expected to show support for mother-tongue and host country language learning, as appropriate.

## Research design

An online survey was developed for this study to capture PYP schools’ characteristics of bilingual education design and implementation. The instrument development was informed by the bilingual education literature, the standards and practices of the PYP, and focus groups conducted with PYP coordinators from five countries. The survey was sent to PYP coordinators in all PYP schools in December 2016 and yielded a response rate of 62% (868 of 1,407 PYP coordinators responded).

## Findings

### School pathways to a bilingual PYP

Of the 868 PYP schools that responded, 30% reported the implementation of bilingual education programs: that is, the use of two or more languages of instruction for subjects other than the languages themselves. A large majority of schools in the sample (83%) started offering the bilingual program before becoming a PYP IB World School. 5% started offering bilingual education concomitantly with offering the PYP, while the remaining (12%) offered the bilingual program after PYP authorization. Thus, the findings indicate that the

existence of bilingual programs or policies in the school seem to be related to the school’s interest and success in adopting the PYP. Results show that parent demand was the primary impetus for schools choosing to offer the bilingual PYP.

### Geographical variance

Among the countries with 3 or more respondent PYP schools, the highest uptake of the bilingual PYP was found in Latin America, where all PYP respondent schools in Colombia (n=12), Chile (n=6) and Argentina (n=5) were identified as providing bilingual education. Additionally, high proportions of bilingual PYP implementation were reported in Peru (83%), Mexico (70%), Ecuador (67%) and Brazil (63%). Beyond Latin America, Saudi Arabia was found to have a similarly high proportion of bilingual PYP schools (75%). Findings also show interest in bilingual education in Hong Kong, China, and Japan, where 35%, 27%, and 25%, respectively, of schools offered the bilingual PYP. Conversely, in English speaking countries such as New Zealand, Australia, the United Kingdom, Canada (excluding Québec) and the United States, the proportion of PYP bilingual schools was comparatively much lower (0%, 4%, 13%, 14% and 17%, respectively).



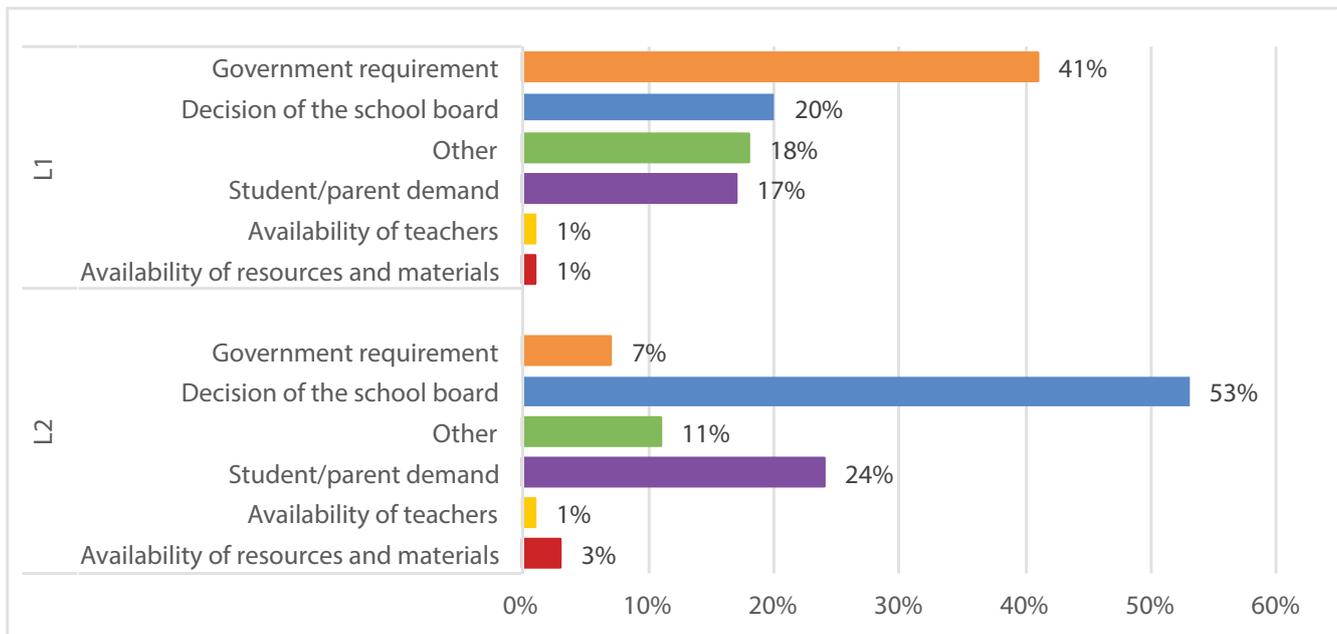


Figure 1. Reasons for selecting the languages of instruction (L1 and L2)

### Languages and time allocations

Overall, results show that bilingual PYP schools offered instruction in the official language of the country in which they are located (L1) and in another target language (L2). The allocation of instruction time between the two languages varied but, in general, schools implemented one of the following patterns:

- A 50/50 model across all grades (equal time devoted to each language);
- A 50/50 model in early grades followed by an increase in the instructional time in L1 in higher grades;
- More time allocated to L2 in early grades, with a gradual shift to a 50/50 model in higher grades;
- More time allocated to L1 in early grades, with a gradual shift to a 50/50 model in higher grades; or
- The same non-equal ratio of instruction time between L1 and L2 (at least 70% in one language), maintained across all grades.

Respondents indicated that the selection of particular languages for instruction was informed by government requirements, especially for L1. In selecting L2, for a majority of schools, the decision was made by the school board and was informed by parental demand, demographics of the student body, and, in a limited context, the language requirements of the PYP (Figure 1).

### Time allocation

In-depth analysis of the open-ended responses from 178 bilingual PYP schools revealed that, overall, the most frequent (34%) time allocation between L1 and L2 was an even split (50/50 or 60/40) across all grade levels. A similarly frequent model (33%) was one in which instruction in L2 (the target language) began with immersion or near-immersion in the early years followed by different pathways for the later grades (for example, switching to a 50/50 model or continuing with the predominance of teaching in L2). In the most common model in the US and Canada (36%), subjects were taught mainly in L2 in the early years, followed by an even split between L1 and L2 in the later grades.

### Teacher allocation

The analysis of the open-ended responses relevant to teacher allocation (n=97) indicated that the majority of bilingual PYP schools (81%) assigned two teachers to each classroom, each speaking exclusively one of the two languages. In 19% of schools, only one teacher, competent in both languages, delivered bilingual instruction. When two teachers were assigned, the majority of classifiable open-ended responses described a co-teaching model, with two teachers speaking one language each and sharing responsibility for the academic material (71%). In most of these schools (54%), teachers took turns in the classroom with the students. A smaller proportion (8%),

mostly in schools with only the early years, placed the L1 and the L2 teachers in the classroom together. The practice of one teacher using both L1 and L2 is largely, though not exclusively, found in US PYP schools.

### Subject allocation

The PYP is a transdisciplinary programme. However, beyond the instruction time spent on the unit of inquiry, some schools have additional subject-specific instruction. Analysis of the open responses about language allocation by subject (n=153) showed that:

- 45% of bilingual PYPs offered instruction in both L1 and L2 for all disciplines;
- 34% offered bilingual instruction in some disciplines, and monolingual instruction in the rest (in either L1 or L2);
- in 21% of programmes, each subject was taught exclusively in one language, either L1 or L2.

Results suggest that schools' decisions about whether to use L1 and L2 between or within academic disciplines may be related to the availability of native-speaking teachers and language instruction resources. In some cases, especially for schools that have both bilingual and monolingual subject areas, this mixed model is a result of government requirements. For example, primary schools in the United Arab Emirates (UAE) are required to teach the Arabic language, religion, and UAE social studies in Arabic. In summary, among bilingual schools, there are several popular methods for allocating the languages:

between subjects, within subjects, or both between and within subjects.

### Challenges

The most frequent challenges reported by schools implementing a bilingual PYP were the availability of teachers qualified to teach in both L2 and the subject matter, followed by the availability of teaching materials in the languages used (Figure 2).

### IB support for implementing a bilingual PYP

In judgments of the support provided by the IB in implementing the programme, respondents expressed the most satisfaction with teacher professional development and support materials for teachers and coordinators. Yet, because these two areas are also the ones deemed critical to a school's ability to implement a bilingual PYP, respondents indicated a need for additional opportunities for training in languages such as Arabic, Chinese, and French, as well as targeted training for bilingual teachers and school leaders. In addition, schools reported a need for options to reduce the cost of professional development, which could include more regional workshops, reducing the cost for travel.

### Country profiles

In addition to reporting overall trends, the analysis aimed to describe the characteristics of bilingual PYP implementation in several countries: the US, Mexico, Canada (Quebec, in particular) and the UAE.

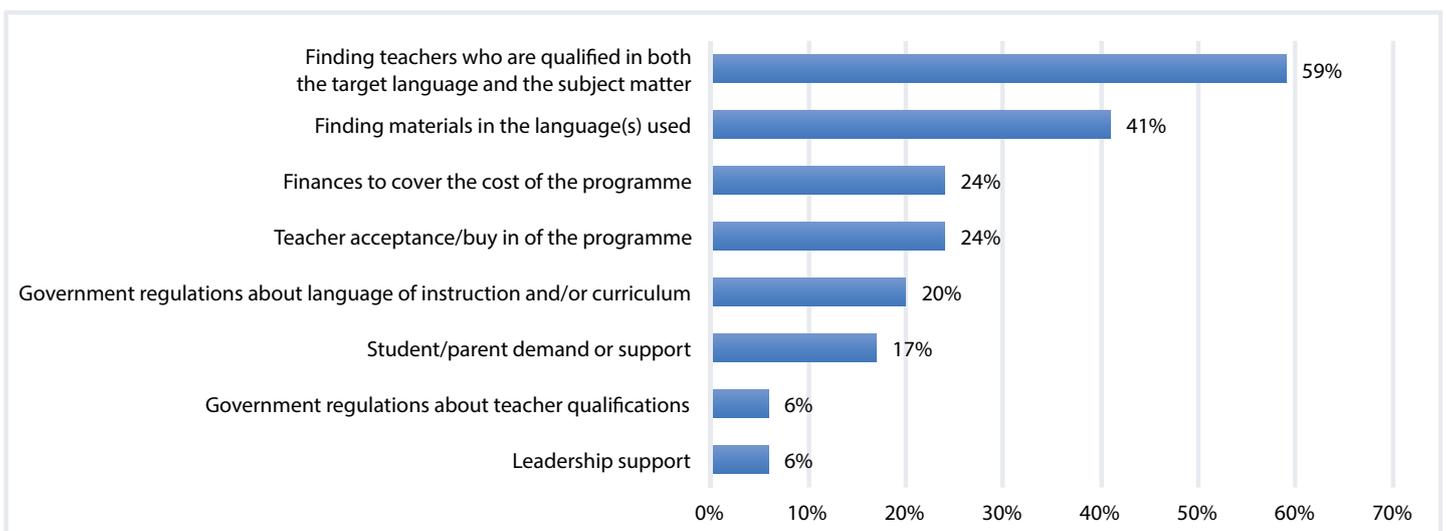


Figure 2. Challenges for bilingual PYP implementation

## The United States

Of the 273 PYP schools in the US that responded to the survey, 17% reported providing bilingual instruction. The majority of those schools (78%) were public and 22% were private.

The schools offering bilingual instruction predominantly employed English as L1 and Chinese, French, German, Italian, Portuguese, or Spanish as L2. However, in schools where the majority of the students were English language learners, Spanish was L1 and English was the target language (or L2).

The allocation of instruction time between L1 and L2 varied by program and school year. Although much variety was reported, findings show that a majority of schools adopted time allocation patterns that closely mirror dual language immersion programs in the US. These schools generally allocated more time to L2 in the earlier grades and progressively moved toward an even split in subsequent grades. In about a third of the cases, schools allocated the same amount of instructional time in L1 and L2 and maintained the 50/50 model for all grades.

About 47% of public schools in the US reported making language choices based on local government (state) requirements, which mandate the learning of a second language, but ultimately the language selection is made by the school board. In larger school districts that have specific policies for language education, the selection of languages was guided by these policies.

## Mexico

About 70% of the PYP schools in Mexico that responded to the survey (n=46) were identified as bilingual PYPs, and all were private schools. More than half (56%) of these schools started offering the bilingual program before PYP authorization. Spanish and English were used for instruction in these schools, with Spanish being mandated by government regulations, as 63% of schools reported. The decision to offer English was made by the school boards primarily to meet parent demand.

Language allocation varied significantly across schools. Nine schools maintained a 50/50 model throughout all grades. In five schools, instruction time allocated to Spanish increased in higher grades, while in two schools, the instruction time in Spanish declined in later grades. Three schools did not use a 50/50 model, but retained the same time allocation for L1 and L2 throughout all

grades. The remaining schools varied instruction time in Spanish and English across grades. The main challenge in implementing the bilingual PYP was finding teachers who are qualified to teach in both the target language and the subject matter.

## Quebec (Canada)

Six of the 20 respondent PYP schools in Québec, Canada (30%) were identified as providing bilingual instruction; five were public and one was private. The private school started its bilingual program 15 years after it became a PYP IB World School, while the five public schools started bilingual programs before PYP authorization.

Instruction was conducted in English and French, which were selected based on government requirements and school board decisions, with very diverse models of language allocation. Four public schools used a 50/50 model across all grades. Another school used English for 20% of instruction and French for 80% in first grade and implemented a 50/50 model for the remaining grades.

Lack of adequate materials in the target language was consistently indicated as a primary challenge in implementing the bilingual PYP. In addition, three schools reported problems wherein teachers did not readily buy into the program itself. The teachers' union was cited as an impediment by one public school.

## The United Arab Emirates

Two out of nine respondent PYP schools in the UAE were identified as bilingual. Both schools were private and used English and Arabic for instruction due to government requirements and decisions by the school boards. In one school, the English-Arabic time allocation started as 80/20 at pre-kindergarten and kindergarten, then changed to 70/30 through the remaining grades.

## Conclusions

Results suggest a number of important patterns about the implementation of bilingual PYPs.

1. By design, programmes in which the curriculum is delivered in two languages are intended to accomplish the PYP's overall learning goals as well as to strengthen the students' additional language. Thus, bilingual instruction is particularly appropriate for the PYP's educational model, in which bilingual abilities are critical and using the language to teach

the curriculum matches “learning by doing”, a core educational strategy of IB programmes in general.

2. The bilingual PYP serves diverse student populations.
  - In the US, programmes are implemented predominately in public schools, where students tend to be native English speakers from highly diverse populations who are interested in learning a broad range of languages, which other research has shown to be motivated by educational, pragmatic, or personal reasons. However, another population served by the bilingual PYP in public schools includes English language learners, mostly Latino, whose purpose is to learn English as well as to improve various aspects of their native language, Spanish.
  - By comparison, in other countries, the bilingual PYP serves a broad range of native speakers of both local and international languages, but the target language (L2) is overwhelmingly English.
3. There is a wide range of curricular designs in bilingual PYPs, primarily revolving around the allocation of time spent in the two languages of instruction, which can vary by grade level and academic subject.
  - In the US, the majority of schools implement a 50/50 model, with instructional time allocated relatively equally in the two languages throughout all grades. However, it is not unusual for the balance to be in favor of the target language (L2) initially, followed by a 50/50 model in the later grades.
  - Bilingual PYPs around the world have language allocations that reflect a wide variety of interests, from a focus on the native language to an emphasis on the target language at different stages in elementary years. This also varies by academic subject, and is somewhat dependent on government mandates, as in the cases of Mexico, Québec, and the UAE.

Although each school subscribes to the same principles and practices that make up the PYP model, results suggest that their approaches to

bilingual education are anything but formulaic. In consideration of factors such as teacher staffing, government regulations, student body demographics, and educational priorities of the broader school community, each bilingual PYP school builds a bilingual education model that best fits its particular needs. The resulting variability in implementation models uncovered in this analysis attests to the flexibility of the programme.

4. The greatest, and most chronic, challenges to bilingual PYPs are finding adequately prepared teachers and providing teaching and learning materials in both languages.
5. The IB provides many different types of support for bilingual PYPs with generally favorable results. Specifically, the IB’s support of teachers (in the form of both teacher professional development and coordinator and teacher support materials) is ranked as the most effective form of support for schools.
6. One interesting finding is that the PYP follows, rather than precedes, bilingual education implementation in most bilingual PYP schools. This pattern is strongest in schools outside of the US. The relatively small percentage of bilingual PYPs in the US seems to reflect the abiding monolingual traditions of its education system, at least up to the recent past. In general, findings from the US suggest that existing bilingual school environments, specifically heritage communities and dual language immersion programs, have not taken on the PYP model in large numbers, as has been the case elsewhere.

## Reference

Skutnabb-Kangas, T. and McCarty, TL. 2008. “Key Concepts in Bilingual Education: Ideological, Historical, Epistemological, and Empirical Foundations” in NH Hornberger (ed), *Encyclopedia of Language and Education* (second edition). Volume 5: Bilingual education (Pp. 175–191). Boston, MA, US. Springer Science+Business Media, LLC.