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Key findings from research on the impact of IB programmes in the Americas

The International Baccalaureate (IB) Global Research department collaborates with universities and independent research organizations worldwide to produce rigorous studies examining the impact and outcomes of the IB's four programmes. In addition, many researchers—independent of the IB—produce quality studies on the effects of IB programmes. This information sheet provides a brief overview of key findings from recent research, both external and commissioned, on IB programmes from 2012 to 2015.

Primary Years Programme (PYP) and Middle Years Programme (MYP) studies

- A study investigated the mathematics **self-efficacy and self-regulatory skills** of PYP students in three schools in the **United States**. Findings indicated that teachers were aware of IB curriculum elements and implemented them in the classroom. Goal setting, monitoring, collaboration and reflection appeared to be beneficial self-regulatory practices that supported student learning. Additionally, high achieving students were found to be more likely to engage in strategic thinking before, during and after mathematics problem-solving than average and low achieving students (Kitsantas and Miller, 2015).
- Utilizing a mixed-methods case study, an investigation explored the **perceptions of administrators, teachers and students** within four PYP schools in **Colombia**. Student interviews identified teachers as the primary drivers of their positive learning experiences. In an accompanying survey, 89.3% of PYP students indicated that they enjoyed being a student at their school while over 90% reported that they were proud to be a student of their school (Lester and Lochmiller, 2015).
- An externally conducted quantitative study in the **United States** compared the **science performance** of PYP and MYP students (n=50) with that of their non-IB peers (n=50). The study, based on the science portion of the Colorado Student Assessment Program (CSAP), found that IB students performed significantly better on the CSAP than their non-IB peers at the 5th, 8th, and 10th grade levels (Healer, 2013).

	5th Grade 2006		8th Grade 2009		10th Grade 2011	
	M	SD	M	SD	M	SD
IB scores	600	39	551	44	543	41
Non-IB scores	581	45	528	47	523	58

Table 1. Means and standard deviations of IB and non-IB CSAP science scores during the years 2006, 2009 and 2011 (Derived from Healer, 2013)

- Systematic observation of 85 classrooms within eight Texas PYP and MYP schools in the **United States** was utilized to investigate **instructional practice and student behaviors**. Generally, IB teachers were observed utilizing active and engaging instruction while students were found to exhibit many positive learning behaviors. For example, IB students were observed as being "on task" 87% of the time, a much higher percentage than the 73% observed in a similar study of non-IB students (Alford, Rollins, Stillisano and Waxman, 2013).

Diploma Programme (DP) studies

- A study, which included all DP candidates who graduated from high schools in the **United States** in 2008, indicated that 78% of students enrolled in **postsecondary** institutions immediately after high school (the US average is 69%). Additionally, 98% continued on to their second year of study. Of former DP students, the four-year graduation rates at all four-year institutions (79%) were higher than the national average (39%) (see Figure 1) (Bergeron, 2015).

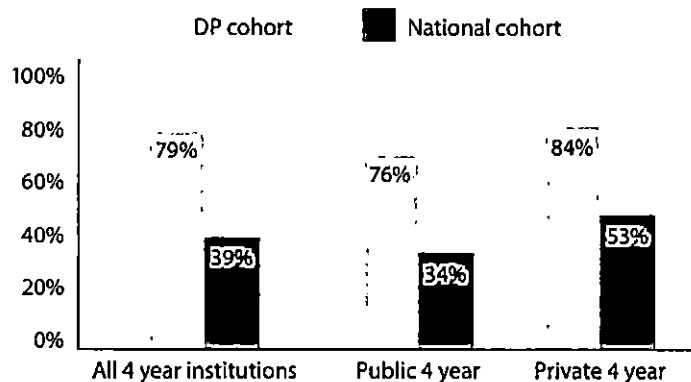


Figure 1. Four-year graduation rates by institution type



Key findings from research on the impact of IB programmes in the Americas

- Investigating the relationship between enrollment in the DP and **students' university preparedness in Mexico**, a mixed-methods case study found that DP students often enroll in top-ranking universities in Mexico. The study also suggested that academically stronger students tended to enroll in the DP, reportedly due to a lack of satisfaction with other high school options. In interview responses, most students, teachers and administrators indicated that the DP does a better job of preparing students for university studies than non-IB programmes because of the DP's rigour and unique curriculum (Saavedra, Lavore and Flores, 2013).
- A study exploring "**academic civic-mindedness**" and "**model citizenship**" in the **United States** found that, compared with nationally representative samples of 12th grade students, the DP sample scored higher on 9 out of 10 items that tested their knowledge of US government structure, functioning and history. Additionally, interview data indicated that the DP strongly promotes students' knowledge of public policy and understanding of effective advocacy techniques (Saavedra, 2014).
- Comparing matched samples of DP and non-DP graduates, a study examined the impact of Chicago's IB programmes on the **postsecondary outcomes and experiences** of Chicago Public School graduates. During the 1990s, **Chicago Public Schools** introduced the DP into 12 high schools serving mostly low income, minority students with little or no family history of college-going. DP graduates were more likely to enroll in college, to enroll in selective colleges, to stay enrolled and to perform better than similar non-DP graduates (Coca, Johnson, Kelley-Kemple, Roderick, Moeller, Williams, Moragne, 2012).

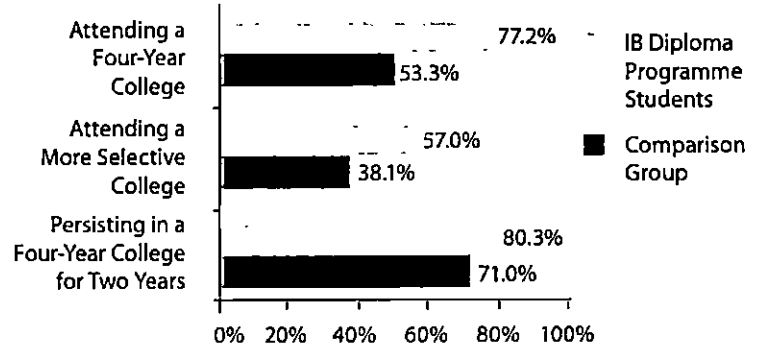


Figure 2. Students in this figure represent all students who enrolled in the "pre-IB" in grade 9 and subsequently enrolled in the DP

- A study examining the learning benefits and outcomes of the **extended essay** on students' research skills at a university in **Canada** found that IB graduates rated themselves higher on measures of self-efficacy for inquiry learning and were less likely to associate learning with memorization, in comparison with non-IB graduates. IB graduates also reported that the skills they learned from completing the extended essay were helpful in meeting the academic demands of university coursework (Aulls and David Lemay; Aulls and Sandra Peláez, 2013).
- The impact of the DP on **academic and non-academic college readiness** was investigated by examining DP and non-DP graduates at the University of Oregon's Honors College in the **United States**. While researchers found no difference in college grade point averages between the two groups, DP graduates were significantly more likely to persist and to complete college than their non-DP counterparts. Qualitative data indicated that DP graduates were also better able to adjust to university coursework, specifically highlighting a number of skills gained through participation in the DP that were helpful in college, including critical thinking, time management and research skills (Conley, McGaughy, Davis-Molin, Farkas and Fukuda, 2014).

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