High School Student Engagement Among IB and Non-IB Students in the United States

High School Survey of Student Engagement (HSSSE)

The HSSSE is a highly regarded survey measuring the academic, social, and emotional engagement of high school students in the United States. It is administered annually by the Center for Evaluation and Education Policy at Indiana University-Bloomington. Since the survey’s inception, over 500,000 students nationally have participated in the HSSSE.

IB Students and the HSSSE

In 2009, the IB recruited eight schools to participate in the HSSSE. Schools ranged from large, comprehensive schools to small schools. Seven were public schools, and one was a private school. Participating schools had wide-ranging socio-demographic profiles - Table 1 lists the breakdown of schools’ student population, by race and ethnicity and percent of students receiving free and reduced lunches.

Table 1. Student population, by race and ethnicity (2008-2009)

<table>
<thead>
<tr>
<th>School</th>
<th>Native American</th>
<th>Asian</th>
<th>Black</th>
<th>Latino</th>
<th>Middle Eastern</th>
<th>White</th>
<th>Other</th>
<th>% FRL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8 (.01%)</td>
<td>64 (4.1%)</td>
<td>368 (24.0%)</td>
<td>90 (6.1%)</td>
<td>0 (0%)</td>
<td>1014 (65.7%)</td>
<td>0 (0%)</td>
<td>832 (53.9%)</td>
<td>1544</td>
</tr>
<tr>
<td>B</td>
<td>1 (&lt;.01%)</td>
<td>17 (3.4%)</td>
<td>119 (24.9%)</td>
<td>27 (5.6%)</td>
<td>0 (0%)</td>
<td>513 (65.5%)</td>
<td>1 (&lt;.01%)</td>
<td>205 (42.9%)</td>
<td>478</td>
</tr>
<tr>
<td>C</td>
<td>4 (&lt;.01%)</td>
<td>193 (8.1%)</td>
<td>28 (1.2%)</td>
<td>103 (4.3%)</td>
<td>0 (0%)</td>
<td>2055 (85.9%)</td>
<td>10 (&lt;.01%)</td>
<td>87 (3.7%)</td>
<td>2393</td>
</tr>
<tr>
<td>D</td>
<td>0 (0%)</td>
<td>51 (10.8%)</td>
<td>28 (6.0%)</td>
<td>44 (9.4%)</td>
<td>0 (0%)</td>
<td>347 (73.8%)</td>
<td>0 (0%)</td>
<td>43 (9.2%)</td>
<td>470</td>
</tr>
<tr>
<td>E</td>
<td>3 (&lt;.01%)</td>
<td>332 (33.7%)</td>
<td>28 (2.8%)</td>
<td>16 (1.6%)</td>
<td>23 (2.3%)</td>
<td>583 (59.2%)</td>
<td>0 (0%)</td>
<td>62 (6.2%)</td>
<td>985</td>
</tr>
<tr>
<td>F</td>
<td>10 (.01%)</td>
<td>111 (7.4%)</td>
<td>926 (61.6%)</td>
<td>108 (7.2%)</td>
<td>0 (0%)</td>
<td>298 (19.8%)</td>
<td>51 (3.4%)</td>
<td>723 (48%)</td>
<td>1504</td>
</tr>
<tr>
<td>G</td>
<td>8 (.01%)</td>
<td>26 (1.6%)</td>
<td>11 (.01%)</td>
<td>130 (8.2%)</td>
<td>0 (0%)</td>
<td>1005 (63.4%)</td>
<td>405 (25.6%)</td>
<td>0 (0%)</td>
<td>1585</td>
</tr>
<tr>
<td>H</td>
<td>8 (&lt;.01%)</td>
<td>196 (9.3%)</td>
<td>434 (20.5%)</td>
<td>90 (4.3%)</td>
<td>0 (0%)</td>
<td>1314 (62.2%)</td>
<td>71 (3.4%)</td>
<td>719 (34%)</td>
<td>2113</td>
</tr>
</tbody>
</table>

Note: Percentages may not add up to 100, due to rounding.
Levels of Student Engagement: IB students vs. non-IB students

To understand how students participating in the IB\(^1\) compared to students not participating in the IB on their levels of student engagement, two sets of analyses were conducted:

- The first compared non-IB students and IB students in the targeted sample of eight schools (n=7,692). Of this sample, 3,499 were IB students (45%) and 4,193 were non-IB students (55%).

- Nationally, the HSSSE was administered to 42,754 students in more than 100 schools. Within the national sample, 16% of students were IB students (n=6,720).

In both sets of comparisons, IB students rated their levels of academic, social, and emotional engagement significantly higher than non-IB students.

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\(^1\) IB students were identified based on their response to the question: “Have done during high school: Taken one or more International Baccalaureate (IB) Diploma classes, or participated in the Middle Years Programme (MYP).”
In both samples, the difference between IB students and non-IB students was statistically significant at p = .00 level. In the targeted sample, the strongest effect size\(^2\) was found for social engagement (Cohen’s d = .48), followed by academic engagement (Cohen’s d = .42), and emotional engagement (Cohen’s d = .41). In the national sample, a small effect size was found for social engagement (Cohen’s d = .33). Effect sizes for emotional engagement (Cohen’s d = .17) and academic engagement (Cohen’s d = .16) were negligible.

**Levels of Student Engagement: IB schools vs. similar schools**

Anecdotally, some principals and teachers state that the presence of the IB elevates student engagement and school culture throughout the school, even for students that do not participate in the curriculum. To explore this assertion, an analysis of the whole IB school, compared to demographically similar schools was conducted. For all three dimensions, IB schools had significantly higher rates of engagement. Effect sizes were small, with Cohen’s d ranging from .20 for emotional engagement to .30 for academic engagement.

\(^2\) Effect size indicates the practical significance of the mean difference between groups being compared. In educational research, it is most common to find effect sizes between 0.10 and 0.40. The following rubric for Cohen’s d was used to interpret effect sizes: .20 - .49 = small, .50 -.79 = medium, and .80+ = large.
Student Engagement: A Closer Look

In the national sample, 63% of IB students had written papers of five pages or more on a regular basis, whereas only 49% of non-IB students had done so.

53% of IB students had discussed ideas from readings or classes with teachers outside of class, compared to 39% of non-IB students.

43% of IB students believed that their school had contributed very much to their ability to think critically, while 35% of non-IB students believed the same about their schools.

26% of IB students strongly agreed that they felt academically challenged by their coursework, whereas 19% of non-IB students strongly agreed that they felt challenged.

Conclusion

To date, this is the largest study of student engagement among IB students. Across each of the domains of student engagement, IB students rated their levels of engagement more highly than non-IB students. This held true for both the targeted sample of eight schools, as well as the national sample. Analyses examining school-level effects of IB showed that IB schools tended to have higher rates of engagement than demographically similar non-IB schools.

Future research efforts will aim to examine student engagement among IB students in the middle grades, using the recently developed Middle Grades Survey of Student Engagement. In addition, the IB will work with Indiana University to expand this research to schools outside of the United States.

This info sheet was developed by the IB Research Department. For more information about IB research, e-mail the IB Research Department at ibru@ibo.org.