Minnesota Principals Academy Action Learning Project

Julie Greiman

Implementing A Primary Years Program of the International Baccalaureate: Evidence of Change from the Perspective of Faculty and Students

Abstract

This Action Learning Project used multiple methods to evaluate the implementation of the Primary Years Program (PYP) of the International Baccalaureate (IB) at an elementary school near the Twin Cities. The PYP is an educational framework based on a transdisciplinary approach to learning utilizing conceptual thinking, inquiry, and the learner profile; ten attributes that form a set of learner outcomes for the 21st century. During the past three years the elementary teachers became immersed in the PYP through research, writing, collaboration, and application in the classroom. Six main units of inquiry were developed by the teachers that aligned with the Minnesota state standards as well as the framework of the PYP. These units were written, taught, and assessed prior to an authorization visit by the IB to the school.

The project evaluated perceptions of faculty regarding their teaching beliefs, practices, and impact of the PYP on student learning. In addition, students evaluated their perceptions of learning in a PYP elementary school. An objective measure of the program compared academic growth of students in literacy and mathematics utilizing the Northwest Educational Assessment Measure of Academic Progress tests over the past three years of PYP implementation.

The evaluation concluded that faculty and students were positive in their perceptions of the success of the PYP implementation in terms of teaching practices and beliefs. Faculty perceived that their teaching was more inquiry based and students were more engaged in their learning. Students responded that they were asking more questions and the learning was more interesting. As a final evaluation piece to the process, the authorization of the school as an IB World School was successfully completed.

Mission: The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the organization works with schools, governments and international organizations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

Background/Context: This whole school change from the traditional format of curriculum alignment and instruction took place in a K-6 elementary school over a period of three years. Demographics of the student body of 355 students: 96% white, 15% FRL, and 14% SPED.

Why a change?: The teachers were feeling the pressure of trying to cover all of the Minnesota state standards in an increasingly fragmented day of instruction. They did not believe they were able to teach the curriculum with enough depth of content. The elementary school was also facing enrollment challenges from nearby elementary schools and wanted to be able to market itself in an increasingly competitive market.

What we did: As a result of a review of literature on the PYP, teachers were sent to Category One training. Implementation happened slowly over the course of three years' work in understanding the foundations of the PYP, intense collaboration and curriculum writing, and incremental implementation
of the program. The school was authorized by the IB in January 2015. This spring student and teacher perceptions of the implementation were evaluated through the use of a survey and focus groups. The effectiveness of the PYP for student learning by analyzing student growth in their Measures of Academic Progress (MAP) scores during the three years of implementation of the PYP was also evaluated.

What we found out:

1. The implementation of the PYP was a success. Responses from the questionnaire were tallied and analyzed.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student engagement is visible in my classroom.</td>
<td>3.59</td>
</tr>
<tr>
<td>Changes I made in my classroom to meet expectations of the PYP are good ones.</td>
<td>3.44</td>
</tr>
<tr>
<td>Implementation of PYP will positively influence public's perception of Scandia Elementary.</td>
<td>3.41</td>
</tr>
<tr>
<td>The implementation of the PYP was successful at Scandia.</td>
<td>3.36</td>
</tr>
<tr>
<td>I have successfully implemented the standards and practices of the PYP in my daily teaching.</td>
<td>3.25</td>
</tr>
<tr>
<td>My philosophy of education involves more inquiry and less rote-memorization since I implemented the PYP in my classroom</td>
<td>3.25</td>
</tr>
</tbody>
</table>

Note. 4-point scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).

2. Student academic growth is increasing with PYP implementation.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>2011-12 (No IB)</th>
<th>2012-13 (1 Unit)</th>
<th>2013-14 (5 units)</th>
<th>2014-15 (All)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>78.4%</td>
<td>70.4%</td>
<td>78.1%</td>
<td>78.4%</td>
</tr>
<tr>
<td>Reading</td>
<td>64.9%</td>
<td>62.5%</td>
<td>69.0%</td>
<td>74.2%</td>
</tr>
</tbody>
</table>

Implications for practice:

1. Instructional practice began to change.
   a. Conceptual teaching increased
   b. Student inquiry was embedded
   c. Connections between subjects were emphasized
   d. Student engagement was more visible
   e. PYP philosophy is visible throughout the building in all grade levels and specialists

2. Collaboration was crucial.
   a. Teachers wrote, taught, and assessed six transdisciplinary units of inquiry
   b. Teachers reflected after each unit and made adjustments
   c. Curriculum alignment is horizontal as well as vertical throughout grade levels
   d. Collaboration was within grade levels, adjacent grade levels, and entire school

3. Student acceptance of implementation increased.
   a. Students utilized vocabulary of PYP
   b. Student use of inquiry increased
   c. Academic achievement showed growth

Teacher response example: "Because our teaching has changed, our students’ learning has changed. Cooperation, communication, and respect guide our practices so our students become more engaged because our activities create that environment."

Student response example: “Inquiry time has helped me learn by not only giving us a healthy mindset about the world and how things work, it also gives us a good and healthy attitude to face the challenges that may await us. It helps us discover who we are, and helps us express our thoughts and feelings. We have the opportunity to ask questions about things that will help us in our later life.”