



Primary Years
Programme

School change: How does IB Primary Years Programme implementation impact school climate?

Research Summary

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Background

The International Baccalaureate (IB) Primary Years Programme (PYP) is a school-wide curriculum framework for children aged 3 to 12 taught in over 109 countries. This study examined the IB PYP's impact on school climate within public elementary schools in California. School climate refers to the ways in which a school fosters safety, promotes a supportive academic, disciplinary and physical environment, and encourages and maintains respectful, trusting and caring relationships throughout the school community (National Center on Safe Supportive

Learning Environments 2019). The IB PYP's orientation and corresponding resources emphasize an approach towards learning, student supports, staff supports, and community building that aligns with school climate improvement. Considering the alignment and that previous research on the PYP suggests the programme may have positive impacts on numerous outcomes, including school climate (Gough *et al* 2014), the current study aimed to understand more deeply the PYP's impact on school climate.



Methodology

This study included two research questions:

1. In schools with strong PYP implementation, what changes and outcomes do key stakeholders attribute to the PYP?
 - What do key stakeholders believe to be the PYP's impacts on topics such as: school climate; school leaders' philosophies, practices and actions; teachers' development, efficacy, collaboration, pedagogy, and practices for planning and instruction; assessment; and school community members' action and civic engagement?
 - What are key stakeholders' understandings of the role of the PYP exhibition¹ in engaging parents and the larger school community?
2. Do school climate outcomes as assessed by the California Healthy Kids Survey (CHKS) improve at PYP schools post-authorization?

To address these questions, researchers used a combination of qualitative and quantitative methodologies. Qualitative analyses relied on interview and focus group data from eight case study sites across the state of California, which were selected based on indicators of strong PYP implementation. Researchers coded transcripts from interviews and focus groups with principals, PYP coordinators, teachers and parents to identify perceptions of school climate as well as the extent to which elements of school climate either changed after the PYP introduction or represented differences compared with non-PYP schools. The full research report includes vignettes for each case study site. Quantitative analyses relied on 16 years of student CHKS data collected from public elementary schools in California. The CHKS includes items that address multiple school climate topics, including caring relationships, school safety, bullying and victimization. Researchers conducted growth curve modelling analyses to determine whether the trajectories of PYP schools on the school climate outcomes changed once they formally became a PYP school.

¹ The PYP exhibition is an extended, in-depth collaborative project completed in the final year of the PYP.

Key findings

Improvements to school climate

The qualitative data revealed numerous improvements to school climate that participants at all or most of the case study schools attributed to the PYP. Participants at every school reported increased focus on social and emotional learning (SEL) and the whole child, use of transdisciplinary instruction, and teacher collaboration because of the PYP. Further, participants from at least three-quarters of case study schools attributed the following improvements to the PYP.

- Increased use of inquiry
- Student voice
- Global perspectives
- Open-mindedness
- Individualization in instruction
- Celebration of diverse student accomplishments
- Student learning for life

- Student action and community service
- Student agency and ownership over learning
- Student engagement
- Teacher relationships
- Teacher creativity and sense of safety to take risks
- Teacher engagement
- Teacher reflection
- Parent involvement
- Parent belief that their children are set up for success

The proportion of case study schools that reported experiencing these improvements suggests that there may be common impacts associated with strong PYP implementation.

PYP-related contributors to school climate

Case study participants viewed the PYP exhibition as particularly contributing to positive school climate outcomes. They considered it a useful tool for encouraging student action and community service,

Contributors to school climate	School								Total
	A	B	C	D	E	F	G	H	
IB learner profile	✓	✓	✓	✓	✓	✓	✓	✓	8
PYP professional development and supports	✓	✓	✓	✓	✓	✓	✓	✓	8
PYP coordinator	✓	✓	✓	✓	✓	✓	✓	✓	8
Essential agreements	✓	✓	✓	✓	✓	✓	✓	✓	8
Focus on public speaking	✓	✓	✓	✓	✓		✓	✓	7
PYP framework	✓	✓	✓		✓	✓	✓	✓	7
PYP identity		✓	✓		✓	✓	✓		5
PYP focus on individualization	✓	✓					✓	✓	4

Table 1. PYP-related contributors to school climate

increasing the use of student voice and choice, expanding horizons, reflection, and for engaging parents, students and the larger community.

Other aspects that helped promote positive school climate at case study schools included the IB learner profile, PYP professional development and supports, the PYP coordinator, use of essential agreements, the PYP's focus on public speaking, the PYP framework, a strong sense of PYP identity and the PYP's focus on individualization (see table 1).

Changes in school climate following PYP authorization

Findings from the quantitative analyses showed small, but statistically significant, changes post-authorization at the PYP schools in six out of nine school climate outcomes assessed using the CHKS: perceived safety, caring relationships, fairness, parent involvement, bullying and victimization. In addition, two outcomes showed non-statistically significant increases (school connectedness and meaningful participation) and one outcome (schoolwork) showed no change post-authorization (see table 2).

“What I can see is the big difference from before, is that we had a large segment of our kids who had kind of grown up in that environment where they were just not engaged in what was going on. So they disengaged and feel disconnected from school ... the kids that were coming up in the PYP [now], it’s just a very different attitude that they have about school, about learning, about what that means for them, and their responsibility in it.”
School B Principal



School climate outcome	Improved post-authorization	Statistically significant improvement
Perceived safety	✓	✓
Caring relationships	✓	✓
Fairness	✓	✓
Parent involvement	✓	✓
Bullying	✓	✓
Victimization	✓	✓
School connectedness	✓	
Meaningful participation	✓	
Schoolwork		

Table 2. Summary of results from analyses that examined changes in PYP schools' climate outcomes post-authorization. **Note:** All school climate outcomes marked with a “✓” in the third column were statistically significant at $p < .05$.

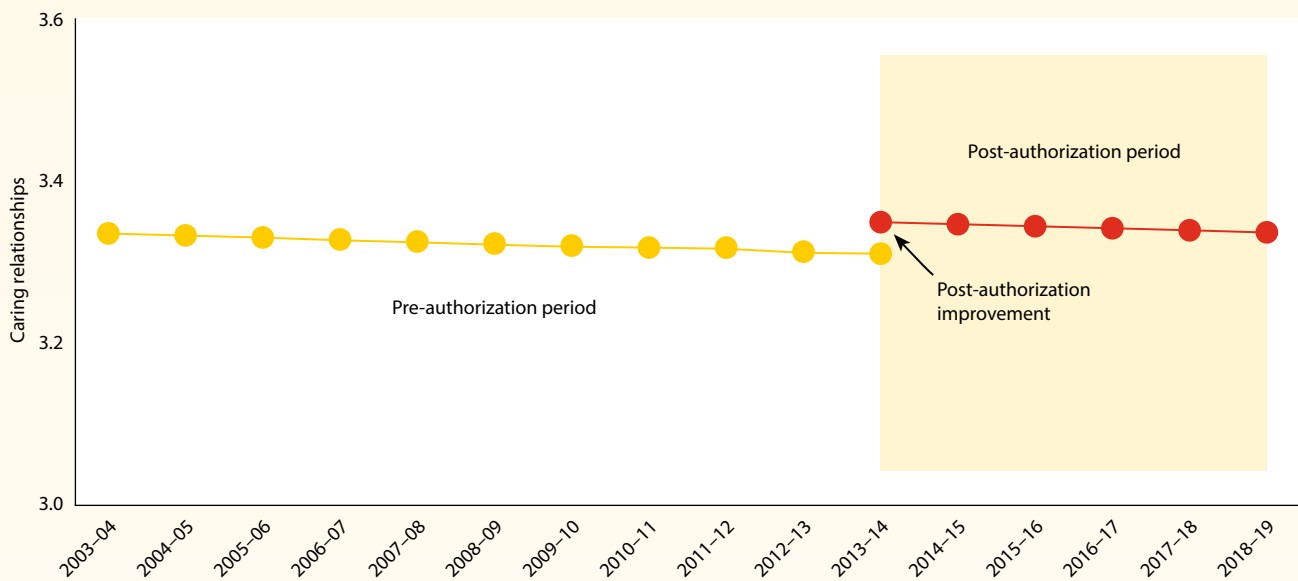


Figure 1. Trends pre- and post-authorization on caring relationships based on the growth curve model for schools authorized in 2013

To exemplify one of the six school climate outcomes that showed statistically significant improvements in PYP schools, figure 1 depicts the increase for caring relationships. Exploratory analyses using various approaches demonstrated consistent results, increasing the research team's confidence in the findings.

Findings for specific school climate domains

The PYP instructional approach and suggested practices are consistent with the dimensions of a positive school climate (National School Climate Center (NSCC) 2019), making the theoretical link between school climate and the PYP valuable to explore. The qualitative and quantitative findings are mapped onto the NSCC domains and presented as a joint display in table 3.

Recommendations for practice

Case study results highlight the importance of leader and teacher buy-in to ensure strong PYP implementation and to realize potential positive impacts on school climate. Professional development addressing school climate, focus on the IB learner profile, and support to integrate the PYP with existing programming and resources on school campuses may be valuable to support further school climate development. Annual use of school climate surveys can also be a helpful tool to determine the current state of school climate and areas for improvement moving forward.



NSCC domain	Qualitative findings	Quantitative findings
Safety	<p>Although participants at all schools noted an increased use of consistent language to develop shared norms and expectations that they attributed to the PYP, aspects of the safety domain did not appear to be substantially impacted by the PYP.</p>	<p>Small, but statistically significant, improvements post-authorization on four CHKS school climate outcomes: perceived safety, fairness, bullying and victimization.</p>
Teaching and learning	<p>The PYP appears to have a substantial impact on aspects of the teaching and learning domain.</p> <p>Improvements in this domain most commonly included use of transdisciplinary instruction, inquiry and student voice, global perspectives, SEL and the whole child, student learning for life, student action and community service, student agency and ownership over learning, and teacher creativity and sense of safety to take risks.</p>	<p>No change post-authorization on schoolwork (ie the one CHKS school climate outcome that was partially aligned with the NSCC domain).</p>
Interpersonal relationships	<p>Participants at all schools reported positive student–student and student–teacher relationships before and after PYP adoption. However, the PYP appeared to impact some aspects of the interpersonal relationships domain at some schools (eg greater focus on celebrating diverse student accomplishments).</p>	<p>Small, but statistically significant, improvements post-authorization on two CHKS school climate outcomes: caring relationships and fairness. A non-statistically significant trend showing small improvements on school connectedness.</p>
Staff	<p>The PYP appears to have had a substantial impact on perceptions related to the staff domain.</p> <p>Participants at all case study schools noted an improvement in staff collaboration, and participants at most case study schools described improvements in staff relationships, creativity and sense of safety to take risks, engagement, reflection, and job satisfaction that they attributed to the PYP.</p>	<p>There were no quantitative findings because no CHKS items addressed this domain.</p>
Institutional environment	<p>Participants at some schools described improvements related to the institutional environment domain, though the content of these improvements varied.</p> <p>Most commonly, participants attributed an increased use of consistent language, sense of community, parent involvement and various positive parent perceptions of their school to the PYP.</p>	<p>Small, but statistically significant, improvements post-authorization on the CHKS parent involvement item.</p> <p>Non-statistically significant trends showing small improvements on meaningful participation and school connectedness.</p>

Table 3. Summary of qualitative and quantitative findings. **Note:** The school connectedness and fairness school climate outcomes from the CHKS mapped onto two NSCC domains.

Summary

This study focused on in-depth exploration of the PYP's role in fostering school climate from the perspective of key stakeholders at PYP schools that demonstrate strong implementation, as well as on determining the extent to which PYP authorization impacts the trajectory of school climate outcomes. The qualitative data revealed numerous improvements to school climate that participants at all or most of the case study schools attributed to the PYP. Participants at every school reported increased focus on SEL and the whole child and the use of transdisciplinary instruction and teacher collaboration because of the PYP. The quantitative data showed small, but statistically significant, improvements post-authorization on the following six school climate outcomes: perceived safety, caring relationships, fairness, parent involvement, bullying and victimization.



References

Gough, A, Sharpley, B, Vander Pal, S and Griffiths, M. 2014. *The International Baccalaureate Primary Years Programme in Victorian Government primary schools, Australia*. Bethesda, MD, USA. International Baccalaureate Organization.

National Center on Safe Supportive Learning Environments. 2019. *School Climate Improvement*. <https://safesupportivelearning.ed.gov/safe-and-healthy-students/school-climate>.

National School Climate Center. 2019. The 13 Dimensions of School Climate Measured by the CSCI [Measurement instrument]. https://www.schoolclimate.org/themes/schoolclimate/assets/pdf/csci/CSCI-Dimensions-Chart_2019.pdf.

This summary was developed by the IB Research department. A copy of the full report is available at: www.ibo.org/en/research/. For more information on this study or other IB research, please email research@ibo.org. To cite the full report, please use the following: Boal, A and Nakamoto, J. 2020. *School change: How does IB Primary Years Programme implementation impact school climate?* Bethesda, MD, USA. International Baccalaureate Organization.