EXECUTIVE SUMMARY

This executive summary presents the main findings and considerations of the fourth and final phase of the Claremont Evaluation Center's (CEC's) 4.5 year evaluation of the MYP: Next chapter (MYP NC). This phase examined the final performance monitoring of school's implementation of MYP NC strategies identified in the initial phase of this research (that data collected from teachers, students and school visits as well as academic and non-academic outcomes from the evaluation. This executive summary is written to inform the decision makers and other IB stakeholders about the overall approach, main findings and key messages of the final phase of this study¹.

The executive summary is divided into six main sections:

- **Section 1** presents the scope of the current report in relation to the previous studies conducted by CEC under the longitudinal MYP Evaluation
- Section 2 provides the main methodological approaches, the definitions of the key terms used in the report and the research questions of the outcomes
- **Section 3** describes the findings related to:
 - a. IMPLEMENTATION STRATEGIES and provides a high-level review of the status of implementation performance monitoring from the third round of data collection from teachers, students and school site visits.
 - b. STUDENTS' OUTCOMES assessed for the purposes of this evaluation to provide a high-level first look at the impact of the MYP: Next chapter changes.
- Section 4 provides the main salient conclusions of the study
- **Section 5** briefly describes key messages of this report, as well as set of considerations for schools
- **Section 6** presents the main limitations of this study and provide recommendations for further research in the area of MYP implementation.

1. THE SCOPE OF THE CURRENT REPORT

Building on findings from the 2016 Implementation Report, the 2017 Performance Monitoring Survey Report, the 2017 MYP Case Study Report, and the 2018 Integrated MYP Evaluation Report, this final report endeavors to:

- Provide an updated snapshot of MYP implementation from the 2018-2019 school year.

¹ This executive summary is published on the IB research public website and includes redundancies to the main body of this report.

- Documents student and teacher perceptions of the programme as it relates to the performance monitoring of nine strategies determined in the first phase of CEC's evaluation as expemplifying the MYP Next Chapter changes from pre-2015 MYP programme.
- Examines, for the first time, student non-academic and academic outcomes.
- Summarizes findings from six case study site visits (undertaken at schools across four countries)
- Analyzes eAssessment results from 15,232 students from approximately 227 schools, and performance monitoring surveys completed by 1,558 teachers and 16,364 students from across 383 IB world schools.

2. METHODOLOGY

This report combines qualitative (case study site visits), quantitative performance monitoring framework (PMF) survey and eAssessment data to report on student outcomes. This practice of merging different data types to answer research questions is broadly known as mixed-methods research.

CEC chose to integrate data sources to: assess the degree to which there is consistency in findings across data sources (i.e., triangulation²) and to draw upon different data sources to explain and elaborate on findings from the other methods (i.e., complementarity³). Where appropriate, CEC compared, contrasted, and extended upon these key findings using data from both sources to present high-level key findings. Detailed information from the quantitative survey and eAssessment data can be found in the appendices of this report.

2.1 OUTCOMES EVALUATION QUESTIONS

A series of evaluation questions guided the data collection, analysis, and reporting for this final round of the CEC longitudinal study. They include:

- 1. What have been the effects, both intended and unintended, of MYP: Next chapter implementation?
- 2. Which aspects of MYP: Next chapter appear to have had the greatest effect on students, teachers, and schools?
- 3. In what ways do outcomes vary for different schools, groups of students, and contexts?
- 4. What changes do schools perceive to have been most successful?
- 5. Does higher implementation of MYP: Next chapter lead to better academic performance?

² Triangulation refers to convergence, corroboration, or correspondence of results from different methods studying the same phenomenon (Greene et al., 1989)

³ Complementarity refers to the elaboration, enhancement, or clarification of the results from one method with the results from the other method (Greene et al., 1989)

2.2 DEFINING STUDENT OUTCOMES

Student outcomes are defined in the final phase of the CEC evaluation as being non-academic and academic:

- **Non-Academic outcomes** measured were: (1) active community members, (2) lifelong learning, and (3) international mindedness. Collectively these outcomes are referred to in the report as **'learner profile attributes'** given their link to the IB learner profile⁴ and the IB's commitment to helping young people develop capacity and responsibilities beyond academic success.
 - These non-academic outcomes were matched to MYP programme strategies (see 2.3) that define implementation in CEC's evaluation as follows; Active community members were measured by survey data that asked about the service as action strategy; lifelong learning survey data relates to the strategies of vertical articulation and approaches to teaching and learning; and finally international mindedness outcomes related to the global contexts strategy.
- **Academic outcomes** examined the extent to which MYP's eAssessment scores from 2019 correlate with the nine implementation strategies.

2.3 DEFINING THE MYP NC THEORY OF CHANGE

Nine areas of the MYP programme were seen to have been **augmented**, **strengthened** or **changed** from the pre-2013 MYP (see **table 1**). These areas, called strategies, fall under two broad categories⁵ as described below: i) pedagogy changes and ii) implementation & recognition changes.

| Table 1: MYP NC Theory of Change | | | | |
|----------------------------------|--|---|--|--|
| Pedagogy Changes | | | | |
| Strategy | Description of Change | Purpose of Change | | |
| Vertical Articulation | Subject Group overviews and progression indicators. | Explicit support for vertical planning across MYP years 1-5. Explicit reference from PYP and to DP at programme and subject guide levels. | | |
| Interdisciplinary Planning | Requirement of (at least) one collaboratively planned interdisciplinary units per year of the MYP. Interdisciplinary is included in e-portfolio external assessment. | To emphasize the importance of interdisciplinary learning and teaching. | | |
| Concept-driven Teaching | Unit plans include: (1) Key and related concepts and (2) statements of inquiry. | (1) Increased transparency of conceptual understanding in the unit planning process and (2) encourage explicit conceptual understanding in teaching and learning. | | |
| Global Contexts | Unit plans include: Global contexts. | Teachers are able to identify relevant contexts for their lesson plans | | |

⁴ https://www.ibo.org/benefits/learner-profile/

⁵ These categories were retrospectively added for clarity in this executive summary.

| Approaches to Learning | ATL planning that shows progression of ATL skills. | Assumed better integration and evidencing of ATL in teaching and learning |
|------------------------|--|--|
| Service as Action | Criteria added for explicit description of authentic student service projects. | Increased understanding and identification of authentic service experiences. |

| Implementation & Recognition Changes | | | | |
|--------------------------------------|---|---|--|--|
| Strategy | Description of Change | Purpose of Change | | |
| Subject-group Flexibility | Year 4 and 5 schools and students can have six instead of eight subjects. PHE, Art and Design become optional in these years. | Schools gain flexibility in satisfying local and national requirements. | | |
| External Assessments | An optional externally marked (eAssessment) and moderated (ePortfolio) examinations based on MYP years 4 & 5. | (1) Support schools where formal assessment is required for age 16 students. (2) Strengthen evaluative capacity of student & school performance. (3) Data to be used to inform schools of strengths and weaknesses and encourage strategic use of data. | | |
| Building Quality Curriculum (BQC) | Requirement of schools to submit unit plans to BQC for schools who do not participate in the optional eAssessments. | (1) Support teaching and learning by providing meaningful feedback to schools on curriculum planning, and (2) ensure that the standards and practices of the MYP are being maintained. | | |

3. MAIN FINDINGS

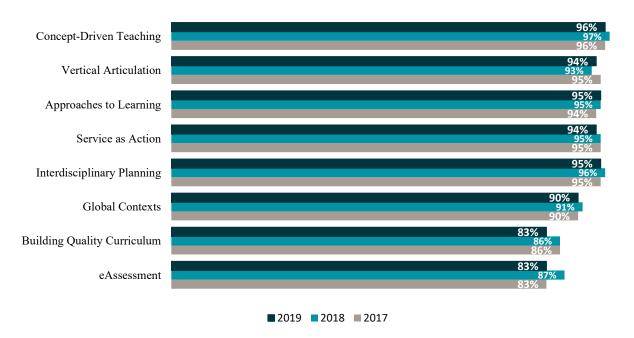
3.1. IMPLEMENTATION STRATEGIES

This section summarizes the main findings related to implementation of the nine strategies mentioned in 2.3 above and provides a high-level review of the status of implementation over the last year of this study (2018-2019) as well as the student outcomes evaluation.

Finding 1: Aggregate levels of implementation remained steady over the past three years, such that many schools report implementing MYP in a manner consistent with IB expectations.

For each of the strategies, teachers' self-reports suggest that upwards of 80% of teachers are, overall, meeting IB expectations (see **Figure 1**) across the evaluation years. This was broadly consistent with case study findings, which also found that most schools were implementing MYP in a way that was likely to meet or exceed IB expectations, indicating fidelity of implementation. Over the period of the current report (2018-2019), teachers reported very little change regarding their practices, knowledge and understanding. This indicates that they have reached a plateau in their implementation of these practices and without further intervention, little additional improvement can be expected.

Figure 1. Figure



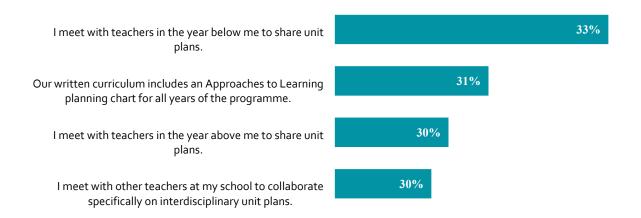
Finding 2: Written curriculum requirements still tend to be prioritized over embedding MYP concepts into everyday teaching practices and learning experiences.

Each year, educators reported a tendency to prioritise written curriculum requirements, such as writing key and related concepts, Approaches to Learning, or Global Contexts into unit plans, over actually embedding these ideas into everyday learning experiences. This was observed in both case study and survey data and across all years of the study's conduction. Considerably more teachers struggled to meet IB expectations for practices related to in-class and collaborative learning experiences.

Finding 3: Practices requiring collaboration with other teachers in terms of vertical articulation and interdisciplinary unit plans remained more challenging to implement than other strategies.

These practices are viewed as critical to the revised MYP curriculum framework, and it appears that schools struggle to implement with these activities. This was reflected in lower rates of implementing collaborative efforts found in the teacher survey data (see **Figure 2**). This was found to be the case for both formal and informal collaborations unless time for vertical articulation and interdisciplinary planning (for example) was built into teachers' and administrators' schedules.

Figure 2. Percentage of teachers not yet meeting collaboration expectations



Finding 4. Overall, context plays a key role in how well schools meet IB expectations of MYP implementation. Additional facilitators and barriers to implementation include length of time implementing MYP, subject area, and resourcing.

SUBJECTS AREA. Across the board, implementation varied by subject (see **Figure 3**). Specifically, science and math teachers struggled to embed Key / Related Concepts, Global Contexts, and Approaches to Learning into the classroom. Teachers who taught language acquisition were the most likely to report high levels of implementation.

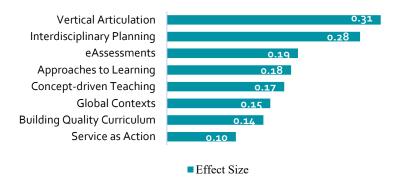
Figure 3. The subject taught is a significant factor in a teachers' implementation of MYP: Next chapter



egative effect on implementation, egative effect on implementation Larger circles indicate influence on teacher's implementation of MYP: Next chapter. All subjects are in comparison to language acquisition

RESOURCES. In each year of the study, teachers who reported that their schools had sufficient resources, were more likely to report positive attitudes toward each of the eight strategies (see **Figure 4**). In addition, they were also capable of implementing the strategies more frequently. The extent that resourcing effected teachers' likelihood of implementing MYP: Next chapter differed by strategy. Interdisciplinary planning, and vertical articulation were particularly influenced by their schools' level of resourcing, where higher resources indicated higher implementation and vice versa. Teacher implementation of the other six strategies, although effected, showed a lesser degree of sensitivity to a teachers' report of resourcing.

Figure 4. Effect of school resources on teacher implementation of strategy

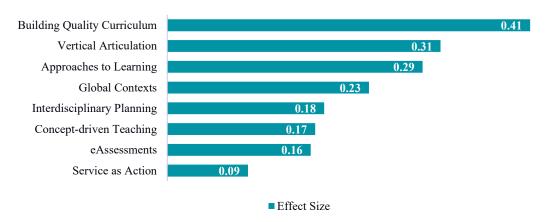


Note: Effect sizes: Small = 0.1 - 0.3, Medium = 0.3 - 0.6, Large = 0.6 and greater

TEACHER TRAINING. Teachers and administrators struggle with adequately training teachers. The boundaries for providing adequate training vary, but in one way or another teacher turnover has a negative impact on new and established MYP teachers. Some coordinators hesitate to send new teachers to MYP trainings until teachers have been at the school for a minimum number of years. This is because they fear spending resources on teachers who will not be at the school long enough to make the training worth it. Additionally, schools often have to put resources into basic trainings for new teachers, rather than being able to offer more advanced training for more established teachers. For example, many teachers discussed confusion regarding Approaches to Learning (ATL) and how to implement the ATL skills effectively into their unit plans. This is something teachers would like more professional development on, but often don't have the opportunity to attend additional training for more "advanced" MYP professional development.

TYPE OF SCHOOL. Throughout the study, school level implementation varied according to the type of school that teachers taught at. Teachers who taught at a private school, whether national or international, reported higher levels of implementation that those who taught at public schools (See **Figure 5**). The type of private school, however, did not have an effect on the quality of implementation. Teachers from both national and international private schools had more knowledge about, and a more positive attitude about the MYP: Next chapter strategies. In addition, they were able to implement these strategies in their classrooms more often. Teaching at a private school particularly influenced teachers' attitude toward Building Quality Curriculum. It, however, did not seem to have any noticeable effect on teachers' implementation of the Service as Action strategy.

Figure 5. Effect attending a private school has on teacher implementation of strategy



Note: Effect sizes: Small = 0.1 - 0.3, Medium = 0.3 - 0.6, Large = 0.6 and greater

LENGTH OF TIME IMPLEMENTING THE MYP: NEXT CHAPTER. Survey data suggests that schools who began implementing the MYP: Next chapter earlier tended to implement the MYP NC with greater adherence than those who began the programme later. However, effect sizes were small (.04 - .17), meaning that length of time implementing the MYP: Next chapter does not explain a large amount of the differences in program adherence. Therefore, other factors must play a role in schools' adherence to the MYP such as professional development, programme structural alignment to other IB programmes or their national context and the year configurations of MYP implementation.

INDIVIDUAL SCHOOL CONTEXT. During site visits teachers indicated that the unique needs of students at their school played an important role in determining the level of implementation possible. The primary concerns of teachers centered around how students differed across school contexts. For example, some students were struggling with living in a new country, starting the MYP program without a PYP background, balancing their schoolwork with all their extra curriculars, or were homeless. The nature of student struggles that predominated in the schools had a notable impact on how schools approached their MYP implementation.

THE ROLE OF THE COORDINATOR. In addition to the student contexts mentioned above, teachers discussed the ways in which school leadership and the site coordinator impacted the implementation of the MYP. Similar to previous CEC site visit years and data, the role of the coordinator was noted as paramount to good implementation. Schools experiencing turnover of coordinators or coordinators who have multiple roles to fill, struggle more with implementation or continued improvement of implementation. One-way schools cope with this is turning to established MYP teachers or outside resources for help. For example, one school brought in experts to help get teachers more efficient with unit planning while the school coped with a part-time, interim coordinator.

Finding 5. Although over 80% of teachers indicated they believe eAssessment produces credible data on student learning roughly 20% remains unconvinced.

Approximately 1/5th of the teacher survey respondents report not yet being convinced that the eAssessments produce useful data on student learning. There is also a perspective from the case study teacher, coordinator and head of school interviews and focus groups that eAssessments don't match the ethos of the MYP in terms of the conceptual nature of the programme. Data from this evaluation as well as from the 2018⁶ data collection indicates additional factors that impact eAssessment perceptions. Factors such as how their parents and student perceive the value of the MYP eAssessments, schools' national contexts regarding the need for recognized tests at this age group (particularly if they have to prioritize other national tests), and if a school offered the IB Diploma programme.

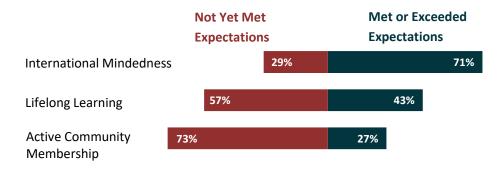
3.2. STUDENT OUTCOMES

Below is a summary of the main findings related to the students' outcomes, effectively providing a high-level first look at the impact of the MYP: Next chapter.

Finding 6. Students consistently report being internationally minded.

Over 70% of students either meet or exceed the expectations set by IB (see **Figure 6**). Roughly half of students indicated that they Strongly Agreed with the statements, "I feel very concerned about the lives of people who live in countries where human rights are not respected," and "There is more than one way to approach a problem." Despite the generally positive trend, there is still room for improvement. Roughly half of students (49%) were not yet meeting IB's expectations when answering the question "I think of myself as not only a citizen of my country but also a responsible member of the global community."

Figure 6. Students largely met expectations related to International Mindedness



⁶ Azzam, T., Mason, S. Beckman, B., & Larson, D. (2018) *The 2018 MYP Evaluation Report*. Internal IB Report: Unpublished.

⁷ For more information see documentation of responses to PMF survey excel document

Finding 7. Roughly half as many students reported meeting as struggling to meet the MYP's expectations regarding Lifelong Learning.

Over a third of students indicated that they believed "Others are in a better position that I am to evaluate my success as a student" and as many disagreed with the statement "I can solve problems when they arise." Many of the rest of the students gave neutral responses neither agreeing nor disagreeing with these statements. Despite feeling as if others are more capable of evaluating their success, students generally claim that they carry the responsibility of making sense of what they learn at school. This can indicate the MYP's goal of producing lifelong learners is beginning to be reached as student learn to take ownership with the learning process⁸.

Finding 8. Students generally meet or exceed IBs expectations for active community membership.

The IB has indicated that they expect students to both believe in their ability to productively engage in active community membership but also begin to take action. Students generally agree that they can "affect what happens on a global level by what I do in my own community" and "apply the things I learn in school to the activities I do in the community," but they are not yet taking action. Most students do not believe they will "write to a newspaper about political or social issues" or "join an organization for a political or social issue." However, roughly 70% of students do indicate an intention to volunteer time to help their local or international community. Students seem to be choosing one or two things they feel comfortable doing to engage actively in their community. It may be that, given time, they will consider expanding this active participation in their community.

Finding 9. Students' learner profile attribute outcomes are impacted by implementation of Global Context and Service as Action strategies.

Both teacher and student responses to the survey indicate that better implementation of the Global Context strategy is associated with an increase in student outcomes related to the student learner profile. Students' survey responses indicated that in schools where teachers report more knowledge, a positive attitude, and frequent inclusion of practices related to the Global Context strategy, students are more likely to report being Active Community Members and lifelong learners as well as having an international mindset (see Appendix 4, Tables 1-3).

Schools in which teacher data indicates a high amount of knowledge and a positive attitude towards the Global Context strategy produced students who indicated being active community members. Perhaps unsurprisingly, schools in which teachers emphasize practices related to the Service as Action strategy also have students who report a strong tendency toward active community membership. This

⁸ For more information see documentation of responses to PMF survey excel document

⁹ For more information see documentation of responses to PMF survey excel document

means that teachers who discuss service with their students in such a way as to "encourage them to think of service in terms of the quality of their interactions," have students who report that they are likely to volunteer their time to help individuals in their local or international communities. This was also supported by observations and experiences documented during site visits. Schools that demonstrated a strong sense of active community membership did so at all levels (from heads of schools to students). Likewise, the teachers' implementation of the Global Context strategy appears to be predictive of whether students become lifelong learners. These teachers are likely to indicate that they often draw on real-world examples and require their students to understand class material from multiple perspectives¹⁰.

Finding 10. Schools in which teachers emphasize Concept Driven Teaching are more likely to have students who report that they are becoming lifelong learners.

These teachers are more likely to believe that using key concepts in unit planning creates personal relevance and greater creativity for their students. In addition, they are likely to ask students broad conceptual questions and have them relate the key concepts to information they've learned in other classes or at other times in the school year. Students who are in these classes in turn indicate that they are more likely to "love learning for its own sake" and to feel that it is their "responsibility to make sense of what I learn at school." Concept Driven Teaching is an important strategy that teachers can use as they guide students toward a belief that they are able to take charge of their own learning and are capable of solving problems that arise in their life.

Finding 11. Students who have a positive attitude about their school are more likely to be internationally minded, active community members and lifelong learners.

Students who described their school as being relatively valuable, interesting or good were more likely to be internationally minded, lifelong learners, and active community members than those that described it as relatively worthless, boring, or bad. Interestingly, those who indicated that their school was relatively easy were more likely to be lifelong learners and active community members than those who described it as relatively hard but were unlikely to be more internationally minded (see **Appendix 4**).¹¹ This indicates that MYP: Next chapter is more effective at increasing the student learner profile outcomes when students positively rate their school than when they find it overly difficult, uninteresting or worthless.

¹⁰ For more information see documentation of responses to PMF survey excel document

¹¹ Note these questions were asked on a sliding likert scale (see appendix 4 for details)

Finding 12. Although students generally think they are prepared for future learning, teachers are uncertain about how to prepare students for the DP.

During the final round of site visits, the CEC asked members of the school communities about how prepared students are for the next step in their education (after completing the MYP). For many, but not all, this means continuing to the IB's Diploma Program (DP). Although these findings only represent the experiences of six MYP schools, there were consistent patterns of responses. Overall, students had mostly positive things to say about what they are learning as a function of being MYP students.

Teachers, on the other hand, are concerned about preparing students for the content-focused nature of the DP. More specifically, teachers expressed difficulty with vertical articulation in terms of preparing students for the DP. They perceive the DP as being very content-driven, which is seen as the antithesis of the MYP concept-driven teaching. As a result, the MYP teachers interviewed are concerned about covering the content their students need to be successful in the DP.

Finding 13. Teachers and students see the benefits of the MYP but they come at a cost.

Generally, students believe anyone can benefit from being an MYP/IB student. But they acknowledge that it is a lot of work and may be different from other school programs. So, students that do not have an IB background might struggle a bit more, relative to students who have an IB background. At some schools, teachers and administrators expressed concern with how students are brought into their school and thus the MYP. At some schools' students must apply and there is concern that some of the inclusion criteria are limiting opportunities to students who would still benefit from the program.

Teachers believe that the MYP pushes them to think more critically about how they engage with students and create lessons that are more valuable to students. They think that this is a result of the concept-driven teaching. However, the trade-off with this flexibility is that teachers often don't feel like they can ever just "phone it in". They are constantly having to recreate/change lesson plans, which contributes to this notion of "MYP = Many Years of Paperwork". Teachers are often stressed by the amount of work they have to do to create and recreate lesson plans and may not have the resources they need to implement the program well. This may provide some insight into the difficulties that teachers face with aspects of the MYP that require collaboration. Teachers struggle to implement all aspects of the MYP in just their own classrooms, let alone in collaboration with others. Additionally, when schools experience turnover or changes in leadership, it seems that it often falls to the more experienced teachers to take on additional responsibilities in order to keep the program running in times of transition.

4. MAIN CONCLUSIONS

A set of evaluation questions guided the data collection, analysis, and reporting for this final round of the evaluation. They include:

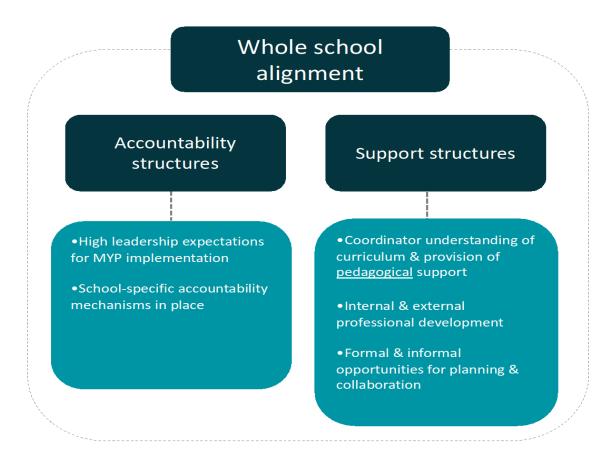
- What have been the effects, both intended and unintended, of MYP: Next chapter implementation?
- Which aspects of MYP: Next chapter appear to have had the greatest effect on students, teachers, and schools?
- In what ways do outcomes vary for different schools, groups of students, and contexts?
- What changes do schools perceive to have been most successful?
- Does higher implementation of MYP: Next chapter lead to better academic performance?

Below is a summary of the main conclusions to these questions based on the data collected for the final phase of the CEC evaluation study (i.e., site visit case studies, PMF survey responses from teachers and students, and eAssessments).

| Evaluation Question | Summary of Results |
|---|--|
| What have been the effects of MYP implementation? | High levels of MYP implementation are associated with better outcome performance, but there are many potential moderator variables which include school resourcing and time implementing the MYP. |
| Which aspects of MYP appear to have had the greatest effect on students, teachers, and schools? | Global Context and Approaches to Learning seem to have notable effects on student outcomes. However, teachers speak very highly of the impact of concept-driven teaching and learning. |
| In what ways do outcomes vary for different schools, groups of students, and contexts? | The type of school, the subject taught and the level or resources available to the teachers all have a positive impact on the level of implementation. This in turn influences student outcomes. In addition to this, students' attitude toward their schools has a strong impact on their learning outcomes. |
| What changes do schools perceive to have been most successful? | Schools found varying success in implementation different MYP: Next chapter strategies. Consistently, strategies that require collaboration with other teachers require overcoming more challenges and written requirements are prioritized. |
| Does higher implementation of MYP lead to better academic performance? | There was not enough evidence to determine if increased implementation led to a change in students' academic performance. This is due to the fact that few schools completed both the survey and the eAssessment in 2019. The lack of a larger dataset hindered the evaluation from examining the relationship between implementation and academic outcomes with a strong degree of confidence in the findings. Further research is recommended. |

5. KEY MESSAGES

This study suggests a number of **key messages** for a variety of different MYP: Next chapter stakeholders.



KEY MESSAGE 1. STRENGTHEN WHOLE SCHOOL ALIGNMENT OF MYP IMPLEMENTATION

Schools and the IB should find ways to strengthen the connections between specific elements of the programme and the important in-classroom teaching and learning experience such that all elements of the MYP work together to benefit students. Key facilitators of developing a whole school alignment of the MYP include accountability and support structures (see **Figure 7**).

Figure 7. Whole school alignment through accountability and support

These include high expectations from school leaders regarding implementation, with built in accountability mechanisms (e.g., regular progress meetings); in addition to consistent provisions of support from these school leaders and particularly the MYP coordinator. Supports include pedagogical understanding, formal and informal opportunities for planning and collaboration, and ongoing opportunity for professional development.

KEY MESSAGE 2. MYP AND DP ALIGNMENT IS THE KEY TO ENSURE A GOOD PREPARATION FOR THE FUTURE

In order to prepare students for their future learning MYP teachers do need to make sure their students are getting the content necessary to be successful in DP, if their school offers the Diploma. Although many MYP schools globally do not offer the DP, where students are moving on to the DP from the MYP many teachers feel there is a troubling inconsistency between the programs. Although the researchers do not have specific comments on how to better align these two programs, we suggest the IB consider the alignment and areas for improving it between the MYP and DP.

KEY MESSAGE 3: CONSIDERATIONS FOR SCHOOLS AND TEACHERS

This study suggests a set of key messages directed to MYP school leaders and teachers. More details related to those messages may be found in the main body of the report. We present below the main messages addressed to IB schools' stakeholders:

- Continue to foster a positive climate at the school level when various changes are implemented. Students attitudes toward their school is an important predictor of their success in terms of the learner profile outcomes examined in this study.
- Pair a focus on approaches to learning with an emphasis on service as action. Those strategies are the drivers for multiple student learner profile outcomes and foster the lifelong learner attributes.
- Work on enhancing the well-being of students, teachers, and programme coordinators. Any school change strategy comes with a cost in challenging the existing routine and classroom practices. The well-being approach may support all the stakeholders to mindfully attend to the change process.
- Scheduling collaboration and planning days throughout the school year that occur during regular workdays and times. Collaboration is the key in ensuring interdisciplinary approach and vertical articulation of the IB programmes.
- Selecting a particular component(s) (e.g., unit planning) that the entire school works on mastering with help from experts. Distributing the workload by assigning different people to becoming experts in particular programme components may create a supportive network of resources at the school level.
- Establishing clear plans, agendas, and goals for collaborative components (e.g., vertical articulation, interdisciplinary units).

6. LIMITATIONS & FUTURE RESEARCH

The research team acknowledges a number of limitations to this study that should be taken into account when interpreting findings.

SELF-REPORT

Findings from the survey component of this research are based on self-report and should therefore be interpreted with caution, as they reflect teacher and student perceptions of implementation rather than external, objective assessments of the curriculum framework.

Non-longitudinal

Even though this evaluation has been conducted over many years and has detected stable and consistent findings, data collected each year was not always collected from the same educators, students, or schools. With the exception of the case study schools, CEC did not track information from teachers and students over time. Therefore, it is difficult to make confident claims about change over time or how these changes impact outcomes.

Non-representative

Although a large number of MYP teachers, coordinators, and students completed the surveys and participated in site visits, they represent a minority of MYP schools. The findings are nevertheless reflective of a large portion of MYP schools, especially given that the same schools did not participate every year, it is possible that those who took part in this study differ in some substantial ways to those who did not take part.

ATTRIBUTING IMPLEMENTATION TO OUTCOME DATA

Due to concerns about the confidentiality of both student and teacher data, there was not enough identifying information to connect students to their teachers. Both the level of implementation and the strength of the student outcomes was aggregated at the school level before a relationship was analyzed. This reduced the power and accuracy of any statistical tests potentially obscuring some interesting findings. In addition, because there were so few schools in which teachers filled out the survey and students completed eAssessments, there was not enough data to find any but a very strong relationship between academic performance and MYP implementation. This likely led to the inconclusive results regarding the effectiveness of the MYP: Next chapter's effect on student academic performance.

FUTURE RESEARCH SUGGESTIONS

Taking into account the above limitations of the current study, we summarize below a number of potential directions for future research:

 Undertake a study that explores learner profile outcomes further into and beyond student IB careers, this may shed more light on the impact of the MYP on the development of students who are internationally minded, active community members, lifelong learners, and prepared for their future education. In particular, based on the results of this research, we recommend a focus on Approaches to Learning and students' experiences with this strategy.

• Further investigate the impact of flexible implementation of the MYP. Although the MYP is designed and recommended for a full five-years of implementations, schools may opt to implement the MYP in different configuration of years (i.e. 1-3, or only years 4 and 5). This aspect of flexibility may influence adherence, but it was out of scope of this evaluation and warrants further investigation.

Additional research is necessary to establish the relationship between the implementation of MYP and the eAssessment outcome results. Future research, for example, may include requesting a small random sample of schools to participate in the eAssessments (for free) while collecting implementation data, and other assessment tools.