

## RESEARCH SUMMARY

### *A Study of Successful Practices in the IB Continuum*

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#### **Abstract**

In this study, the Hong Kong Institute for Education illuminates key strategies and practices that promote successful programme implementation and transition within full continuum IB schools. The mixed methods study analysed data from a global survey of 235 IB coordinators and case studies of five full continuum schools in the Asia-Pacific region. The study found that schools employed leadership practices and management strategies to address issues and challenges emerging from programme transitions. Commonly and saliently identified leadership practices and management strategies included 1) various strategies for the purpose of articulation, 2) cross-programme interaction, and 3) strategic staffing. Among the three major leadership and management strategies, articulation promoted a better transition through building consistency and coherence between programs. Consistency between programmes in terms of teaching, learning, and assessment was critical to a smooth transition. In a similar vein, coherence of curriculum between programmes was another key pillar for a smooth transition. Finally, support for students was also directly associated with better program transitions.

## PROJECT OVERVIEW

In 2009, the IB commissioned the Hong Kong Institute for Education (HKIEd) to conduct a study of practices within IB schools implementing the full continuum of IB programmes – the Primary Years Programme (PYP), the Middle Years Programme (MYP), and the Diploma Programme (DP). HKIEd’s research study documents the strategies and practices used by IB schools to promote effective programme implementation and transition, both across the world and within the Asia-Pacific region. The research study involved two main components:

- 1) Analysis of data from a global survey of MYP and DP coordinators to attain a broad picture of successful practices used by IB schools internationally, and
- 2) Case studies of full continuum IB schools in the Asia-Pacific region in order to gain an in-depth understanding of how schools manage transitions across IB programmes (PYP/MYP/DP).<sup>1</sup>

Based on the two main project components, HKIEd’s research focused on the question: What are key school factors that facilitate successful programme implementation? To investigate this overarching question, several key sub-questions were specified:

- 1) What are key school strategies that contribute significantly to making better programme transitions?
- 2) What are commonly identified school strategies that shape successful programme transitions?
- 3) How and why do these strategies work?
- 4) What are crucial tensions and problems embedded in programme transitions?

## RESEARCH DESIGN

To investigate these questions, HKIEd conducted a three-phase, multi-method study involving: 1) an analysis of a global IB survey of coordinators in schools with MYP and DP, 2) multiple case studies, and 3) a synthesis of key findings from both the survey and the case studies.

The IB had already collected data from an MYP-DP survey in 2008, but was seeking a deeper analysis of the data. The survey data was analysed to attain a series of descriptive statistical analyses in order to examine school practices associated with high-quality programme implementation of the IB curriculum transition from MYP to DP. To this end, the research focused particularly on categorical data analysis since the MYP-DP survey consisted mostly of categorical data.

Schools in Thailand (two schools), Vietnam (one school), Hong Kong (one school) and China (one school) were selected for the case studies. Several selection criteria were employed: 1) school must offer the full continuum of IB programmes, 2) schools demonstrated above average performance on DP exams, and 3) selected schools represented diversity in terms of country, school size, and type of student populations. Importantly, selected schools were not chosen explicitly on the basis of ‘successful transition.’ In fact, the schools acknowledged that the concern over transition was in many cases a

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<sup>1</sup> While the qualitative analysis focused particularly on MYP-DP transition challenges/successes, the study also covers PYP-MYP transition issues.

relatively new one. They were experimenting with how to ‘make it work’ for their students. Thus, selected schools were information-rich cases because they demonstrated successful strategies for programme transition, and at the same time, they showed concerns and tensions embedded in programme transition.

Substantial interview data from teachers, administrators, and students were collected. Across the five schools, 68 teachers and administrators were interviewed and 25 students were interviewed. The initial interview protocol was based on the quantitative results from the IB MYP-DP survey. This semi-structured interview protocol focused on key staff members’ and students’ perceptions of critical school characteristics in association with the IB curriculum implementation and transition across the three IB programmes. Classroom observations were also conducted to gather supplementary information. In addition, key school documents from the five schools were reviewed.

To analyse the data, a coding scheme based on patterns emerging from the interviews and the results from the IB survey was developed. Broadly, coding categories focused on school context (12 codes), school culture (8 codes), leadership and management (8 codes), and programme transition (24 codes). To reduce large amounts of interview data into a smaller number of analytical units based on similar themes, pattern codings were developed (Miles & Huberman, 1994), and used to generate an elaborated thematic network map visualizing complex but clear relationships among themes (Attride-Stirling, 2001).

### KEY FINDINGS FROM THE IB SURVEY

Findings from the survey were categorized into five broad areas:

- 1) Learning culture
- 2) Challenges and changes in the MYP-DP transition
- 3) Leadership and management
- 4) Monitoring and assessment
- 5) Differences and similarities: Asia-Pacific IB schools vs. other IB schools

First, with respect to learning culture, DP had a more test-oriented learning culture than MYP. MYP coordinators were more critical of DP’s test-oriented learning culture than DP coordinators. Furthermore, MYP in full continuum schools (FCS) seemed less test-oriented than MYP in partial continuum schools (PCS, e.g., schools having MYP-DP only). At the same time, DP in FCS seemed less inquiry-based than DP in PCS. Different teaching practices were used in MYP compared with DP; the predominant inquiry-oriented learning practices used in MYP were viewed as “desirable” by a majority of both MYP and DP coordinators.

Second, both PCS and FCS coordinators perceived “dealing with detailed and prescribed content in DP” as a major challenge in the transition. Both PCS and FCS coordinators believed that the transition could be improved through: 1) increased emphasis on interdisciplinary learning in the DP; 2) access to a wider range of assessment tools in the DP; and 3) greater MYP programme recognition (with governments and universities). At the same time, however, PCS and FCS coordinators emphasized different changes

needed in the programmes and programme transition. Interestingly enough, coordinators from FCS were more likely than their counterparts from PCS to indicate that the transition has been satisfactory.

Third, key leadership and management strategies were associated with successful transitions. These strategies included: the presence of school leadership across programmes, teachers teaching both of the programmes (i.e., MYP and DP), development of subject vertical and horizontal articulation documents, meetings/collaboration between teachers of each programme, and meetings/collaboration between MYP and DP coordinators.

Fourth, with respect to monitoring and assessment, there were no distinguishable patterns for monitoring and assessment used for both MYP and DP students' progress and performance. The ways of monitoring and assessing both MYP and DP students' progress and performance were similar. However, FCS were more likely than PCS to utilize 1) written reports; 2) parents/teacher/students conferences; and 3) school leadership teams for monitoring and assessing both MYP and DP students' performance.

Finally, while there were many similarities in IB implementation across schools in the Asia-Pacific region, some distinctive characteristics were identified. Notably, several differences regarding learning culture, monitoring and assessment, and changes needed suggest that the IB schools in the Asia-Pacific region may have a more test-oriented learning culture and thereby require different changes needed for the transition. IB coordinators in the region tended to view "less content in DP" as an important change needed. Yet, they were less likely than other IB coordinators to view "external MYP exams" as important. Furthermore, they tended to view that "standardized internal MYP assessment tasks" as change, neither important nor unimportant. These results are consistent with the finding that IB coordinators in Asia-Pacific were less likely than coordinators in other regions to characterize the DP learning culture at their schools as one that places an emphasis on student inquiry. The study's qualitative data analyses further illuminates how learning culture and changes the Asia Pacific IB schools face are associated with curriculum implementation.

## **KEY FINDINGS FROM THE MULTIPLE CASE STUDIES**

Through intensive case studies from the five schools, the researchers noted 18 key themes associated with successful programme transition and curriculum articulation.

- 1) Articulation
- 2) Consistency and coherence
- 3) Consistent assessment
- 4) Cross-programme interaction (students)
- 5) Cross-programme interaction (staff)
- 6) Cross-programme involvement (staff)
- 7) Difference in assessment
- 8) Difference in learning and teaching
- 9) External factors
- 10) Interpretation of IB
- 11) Leadership and school management
- 12) Local contexts

- 13) Parent education/meeting
- 14) School size
- 15) Staffing
- 16) Structured pastoral support
- 17) Support for students
- 18) Within programme collaboration

Of the 18 themes, 10 common themes and their interactions with other themes were identified across the five schools and illustrated in the form of a network map (available in the full report). Using the network map, there are three major external conditions that the case study schools commonly face: school contexts (including school size, local context/culture, and key stakeholders' concerns), interpretation of IB programme (i.e., interpretation of IB programme by different key stakeholders), and external factors (e.g., IB assessments and university requirements).

Notably, schools attempted to respond to those external conditions through leadership practices and school management strategies. Commonly and saliently identified leadership practices and management strategies include: 1) various strategies for the purpose of articulation, 2) cross-programme interaction, and 3) strategic staffing. Among the three major leadership and school management strategies, articulation was the only theme directly connected to programme transition. At the same time, articulation indirectly promoted a better transition through building consistency and coherence between programmes. Consistency between programmes in terms of teaching, learning, and assessment was critical to a smooth transition. In a similar vein, coherence of curriculum between programmes was another key pillar for a smooth transition. Finally, support for students was directly associated with better programme implementations and transitions.

Several external conditions (e.g. school contexts, different interpretations of IB, university requirements, etc.) were associated with programme implementation and transition. Specifically, socio-cultural factors embedded in local contexts functioned as challenges in providing a better understanding of IB programmes. For example, the case study schools had to address local parents' different pedagogical understandings of the IB programme, which tended to be deeply rooted in local education systems and cultures.

In addition, among several key organizational features (e.g., student ethnic proportion, faculty size, school history), school size was the most salient theme that related to programme transition. School size influenced 1) cross-programme interaction among students and 2) cross-programme interaction among staff. In brief, a smaller school size seemed to make the quality of transition effective because it contributed to cross-programme fertilization through cross-programme interaction among school members.

Another distinctive feature of school context noted in interviews and observations included differing interpretations of IB programmes among key administrators and teachers. A majority of administrators and teachers viewed tensions as embedded between MYP and DP and interpreted key characteristics of MYP and DP differently. Differing interpretation of the nature of MYP and DP seemed to be related to other external factors such as IB diploma exams or university requirements although such linkage was

identified by only a few schools. Obviously, IB diploma exams and university requirements functioned as key external constraints that tended to shape different learning cultures between MYP and DP in general and different learning styles, teaching methods, and assessments between MYP and DP in particular.

Leadership and school management enabled the schools to respond to the external conditions and implement better programme transitions. Articulation was emphasized for enhancing coherent linkages between programmes and/or visualizing consistent curriculum throughout programmes. In other words, articulation was the overarching strategy identified by all the schools although there were some variations in terms of approaches to articulation. Variations were categorized into three types: 1) backwards mapping, 2) cross-programme interaction among staff, and 3) documentation. Whereas cross-programme interaction among staff was one of the organizational tools for articulation, all five schools viewed cross-programme interaction among staff as a broader strategy beyond articulation. Cross-programme interaction among staff was commonly identified as a key leadership and management strategy aimed at supporting students and thereby forming better programme transitions. Two major types of cross-programme interactions among staff were identified: 1) cross-programme interaction and 2) cross-programme involvement. Cross-programme interaction included both informal and formal interactions among staff in association with programme transition. With respect to informal interactions, teachers and coordinators from different programmes tended to have a chance to understand others' work and programmes serendipitously through informal interactions such as lunch together and informal chats in a shared staff room. With respect to formal interactions, teachers and administrators tended to learn more about other programmes from formal meetings such as regular staff meetings and school-wide workshops. Another type of cross-programme interaction can be described as cross-programme involvement and includes 1) cross-programme teaching (teachers teach more than one programme such as both MYP and DP, 2) cross-programme cooperation (some teachers get involved in other programmes as a mentor or project supervisor), and 3) cross-programme experience (some staff have teaching/coordinating experiences of other programmes. Staffing was utilized to facilitate better programme implementation and transition in the five schools. Specifically, there were different types of staffing features identified in different schools (e.g., IB-focused hiring, cross-hiring, multiple positioning, position switching, etc.).

The three major leadership and school management strategies were associated with the enhancement of 'consistency and coherence' perceived by teachers and students. In particular, the contribution of various articulation strategies and staffing practices to 'consistency and coherence' were clearly identified from the five schools. The findings suggest that consistency and coherence were perceived by students and staff especially when curriculum was clearly articulated, when learning culture (including assessment and teaching methods) was consistent throughout the three programmes, and when common language (ranging from IB lexicons to IB interpretations) was shared throughout the three programmes. Perceived consistency and coherence promoted better programme transitions 'directly.'

The research also showed that support for students enabled students to better adapt to a new programme in general and DP in particular. All the schools emphasized not only programme transition but also social transition. To this end, they provided more structured pastoral support for students. It

should also be noted that the schools acknowledge that programme transition issues are interwoven with pastoral transitions, which occur on a daily basis.

In summary, the multiple case studies illuminated how leadership and school management enabled the schools to respond to the school context, and design and implement better programme transitions. Specifically, articulation, cross-programme involvement/interaction, and staffing were the commonly identified success factors that contribute to coherence, consistency and support for students in programme transitions. Based on these findings, the density of leadership and organizational learning throughout the case schools enabled more effective responses to various programme transition issues.

## **SYNTHESIS OF THE SURVEY AND CASE STUDIES**

Similar themes were identified in both the quantitative and qualitative data. This suggests that the findings from the qualitative analysis can be transferred or applied to other IB schools' contexts although the case study schools are located in the Asia-Pacific region. This also suggests that many IB schools are confronting similar transition issues. Common findings identified from the quantitative and qualitative analysis include:

- 1) With respect to learning culture embedded in MYP and DP, both the qualitative and quantitative data showed that increased emphasis on interdisciplinary learning and/or inquiry-based learning in the DP is needed and that a wider range of internal assessment tools in the DP is needed.
- 2) With respect to programme transition, both the survey and the case studies indicated that leadership and management contribute significantly to successful programme transitions.
- 3) The importance of cross-programme interaction/involvement for successful programme transitions was identified from both of the studies.
- 4) Consistent with the survey findings, the case studies showed that articulation is a key vehicle for programme transitions.

In addition, some of the survey findings can be more clearly explained or supported by the interview data. First, the IB survey data showed that coordinators from partial-continuum schools tended to indicate somewhat lower evaluations of the MYP-DP transition than coordinators working in the full continuum schools. While the difference was statistically significant, the survey data did not provide any information to explain this finding. Looking to the qualitative data, one feasible explanation is that schools having the full continuum programme are more likely to have an opportunity to facilitate cross-programme fertilization through cross-programme interaction and involvement. If this is the case, IB schools implementing the full continuum are more likely to bring some benefits that help programme transitions via the facilitation of cross-programme fertilization. Having the three programmes would not necessarily be beneficial per se in the sense that more tensions or inconsistency may be embedded between each linkage of the three programmes. However, as the case studies revealed, cross-programme interaction/involvement was commonly and highly exercised in the case schools with the full continuum. This suggests that as long as school leadership emphasizes cross-programme interaction/involvement as a key strategy for programme implementation, schools having more than one programme or the full continuum are likely to have such cross-programme interactions among staff, which sheds some light on explaining why coordinators from full-continuum schools were more likely to

indicate somewhat higher evaluations of the transition than coordinators working for partial-continuum schools.

Second, the survey data showed some differences between the Asia-Pacific and IB schools in other regions. Specifically, there were significant differences between them in terms of learning culture, monitoring/assessment, and changes needed. Specifically, the IB schools in the Asia-Pacific region seem to have a more test-oriented learning culture and thereby require different changes needed for the transition. This phenomenon can be explained by local contexts facing IB schools in the Asia-Pacific region. That is, parents' different pedagogical understandings deeply imprinted by local education systems and cultures seem to demand Asian IB schools to have external exams and subject contents as a key part of learning.

Finally, while there were not any dramatically different findings between the IB survey and the case studies, there were several nuanced differences. An interview with DP students from one of the case schools implicitly suggested that drawing a sharp line between MYP and DP by inquiry-based learning may not be necessarily correct. Rather, inquiry-based learning can be made in DP through more independent work with deep subject contents. Conversely, inquiry-based learning may not be done in MYP especially when MYP touches on wide topics in a basic level and in the form of group work where some students may not take some serious ownership in their inquiry-based learning. The interview also suggested that inquiry-based learning may depend more on the way teachers deploy subject contents and the nature of subjects. This phenomenon was echoed in some students' preference of DP to MYP because DP is a more structured and in-depth way of learning what they want to study.

## CONCLUSION

The commonly identified success factors from both the quantitative and qualitative data suggest important implications for IB programme implementation and transition. HKIEd describes such success factors as 'connectors' that enhance coherence and consistency in IB programme implementation and transition. For IB school leaders and educators, six key connectors based on findings from both of the datasets are noted—i.e. structural, intellectual, cultural, communicative, political, and professional connectors (see full report for a more in-depth description of these connectors).

Research findings suggest several practical implications for IB:

- 1) Learning approaches in PYP and MYP are developmentally appropriate, backed by current theory and research and suited to today's world.
- 2) Both the survey and case studies indicate the presence of disconnections between MYP/DP as problematic.
- 3) Focusing on transition strategies between programmes is important, but at the same time, it is important to capture and recognize the larger problem of the need for change in DP.

Another more profound implication for IB resonates with the connection issue mentioned above. Connection issues within IB schools (see Chapter 6 of the full report for details) are also echoed in connection issues between IB as an organization and IB schools. IB may need to take a closer look at the flip side of the six connectors mentioned above—i.e., the six types of disconnection between IB and IB

world schools. As Walker (2006) pointed out, many programmes and innovations such as IB programmes are, in-and-of themselves, beneficial. But when parcelled together and thrust at speed in IB schools, the three IB programmes could become unwieldy and disconnected. As a result, they could become less successful individually as well as collectively although there are obviously success stories. In particular, the lack of alignment of assessment tools and philosophy embedded in MYP with DP is a critical issue facing IB schools. Thus, the alignment issue between the programmes should be addressed without losing the quality of DP. Providing more clear guidelines for IB world schools seems to be critical.

This summary was developed by the IB's Global Policy & Research Department. For a copy of the full report, or for more information on other IB research, e-mail the IB Research Department at [ibru@ibo.org](mailto:ibru@ibo.org).