

# IMPLEMENTATION OF IB PROGRAMMES IN SOUTH KOREA



IB Commissioned Research Report

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## FINAL REPORT

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THE RESEARCH TEAM APPRECIATES THE FINANCIAL SUPPORT OF THE IB FOR THIS RESEARCH PROJECT. THE RESEARCH TEAM ALSO THANKS HEIKE SCHRÖDER FOR HER INSIGHTFUL COMMENTS AND SUGGESTIONS ON EARLIER DRAFTS OF THIS REPORT. THE TEAM ALSO APPRECIATES ALL PARTICIPATING IB PRINCIPALS, COORDINATORS, TEACHERS, STUDENTS, AND PARENTS FOR THEIR SUPPORT FOR THIS PROJECT. THE VIEWS EXPRESSED IN THIS REPORT ARE THE SOLE RESPONSIBILITY OF THE RESEARCH TEAM AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE INTERNATIONAL BACCALAUREATE.

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# EXECUTIVE SUMMARY

## 1. OVERVIEW OF THE RESEARCH

### 1.1. RESEARCH BACKGROUND

The South Korean schooling system has faced persistent criticism due to its hyper-competitive, high-stakes university entrance exam, resulting in testing-oriented school practices and student learning. Recently, International Baccalaureate (IB) programmes have gained significant attention in Korea as a potential policy solution to this issue (Lee et al., 2022b). The rationale behind this shift is the belief that the assessment methods used in IB programmes are pedagogically progressive and could address the problems within the Korean education system that have long been shaped by the competitive nature of university entrance exams (Lee et al., 2022b). Aside from such a positive expectation, the perceptions of key stakeholders (students, teachers, IB coordinators, principals, parents) involved in the implementation of IB programmes remains largely uncharted. Within this context, understanding how IB programmes are being implemented in the local schools is crucial, given that the implementation of these programmes has been expanding to more local schools in several provinces through Memorandums of Understanding (MOU)s with the International Baccalaureate Organization (IBO) in recent years.

### 1.2. RESEARCH GOALS

Within this context, this research project was designed to achieve the following three goals:

- To profile the 18 IB schools' contexts in relation to IB programme implementation
- To document the key stakeholders' perceptions of IB programme implementation
- To identify the changes in student learning, teaching practices, and school organization that stakeholders attribute to IB programme implementation

### 1.3. RESEARCH DESIGN AND METHODS

We conducted a mixed-methods study (i.e., sequential exploratory approach) that consisted of a four-phase research design with multiple analytical strategies (Cresswell, 2014) as follows:

- **Tailored Literature Review of IB Programme Implementation in South Korea (Phase 1):** We conducted a tailored review to document existing research about the benefits, opportunities, changes, effects, challenges, and identified solutions associated with implementing the IB programmes in the context of South Korea. Details of the review process and key findings are presented in Chapter 2.
- **Qualitative Study of Nine IB schools (Phase 2):** We selected three schools each for the Diploma Programme (DP), Middle Years Programme (MYP), and Primary Years Programme (PYP). We ensured the maximum variation of relevant school demographics in our sampling (See Appendices 1-1 & 1-2 for details). Considering all the criteria for our sampling, we successfully achieved data collection from all of the schools stated in our original proposal. In total, we conducted 80 interviews, including individual interviews and focus group interviews (FGIs), with 181 school members across the nine schools. On average, each interview lasted 53 minutes. Details of the

- qualitative study's procedure and key findings are presented in Chapter 3.
- **Quantitative Study of 18 IB schools (Phase 3):** We developed survey questions drawn from the comprehensive analysis of our qualitative research findings (i.e., Phase Two). We also utilized existing validated questionnaires (e.g., Teaching and Learning International Survey 2018 questionnaire, Lee et al.'s (2022a) comparative study of IB school survey, Walker et al.'s (2016) IB Learner Profile study in Asia). The data was collected through an online survey administered at 18 IB schools authorized between 2021 and 2022. We successfully collected the survey data from 2,875 IB students (66% of response rate) and 320 teachers (60% of response rate) across all 18 targeted IB schools. Details of the quantitative study's procedure and key findings are presented in Chapter 4.
  - **Integration of Qualitative and Quantitative Research Findings (Phase 4):** Based on our investigations conducted sequentially from Phase 2 to Phase 3, we triangulated and complemented key findings from both qualitative and quantitative analyses. We presented a range of insightful voices and views from the interview data, many of which were reaffirmed on a larger scale through our survey data. A summary of the key findings and their implications is provided in Chapter 5.

## 2. SUMMARY OF KEY FINDINGS

### 2.1. BENEFITS OF IMPLEMENTATION OF IB PROGRAMMES

**Students' Perceived Benefits of IB Education:** The student survey data provided a number of insights into student perceptions of the implementation of the IB. Specifically, students identified the top three perceived benefits of IB education. As presented in the table below, the benefit most recognized by students was that "IB education enhances **thinking skills**." This was followed by "IB education improves **self-directed learning skills**," and "IB education increases **participation and engagement in classes**."

#### Students' Perceived Benefits of IB Education

Benefits	Freq.
<b>Enhancing thinking skills</b>	1,797
<b>Improving self-directed learning skills</b>	1,728
<b>Increasing participation and engagement in classes</b>	1,370
Improving relationships with students and teachers	735
Enhancing global citizenship	727
Making school life happier	717
Advantage in university admissions with IB	631
Trust in IB assessment methods	569

**Enhancing Thinking Skills:** This benefit resonates with some of the key themes identified from our qualitative study. Specifically, "enhancing thinking skills" well aligns with **the theme of "improvement in thinking skills."** Students in our qualitative study felt that their ability to think logically, apply data research skills, and increase their creative capacity had improved through IB

education. In particular, DP students responded that they had developed a critical thinking attitude and data research skills when processing various types of information.

*... so in fact, the Korean language study I did until middle school was standardized, but now IB Korean language continues to be discussed a little more. I felt like it was a task of thinking and constructing my own answer, so I learned how to respect other thoughts and that I had to continue thinking logically to be confident in my own thoughts. (DP, student H)*

In terms of improvement in thinking skills, creative capacity was commonly confirmed by PYP, MYP, and DP students, and they felt that their imagination and creativity were developed in the process of carrying out their own assignments.

*... There is something like 'let's design something', and I think it was good because we were able to imagine based on what we learned. (PYP, student J)*

“Enhancing thinking skills,” the benefit most recognized by students, also resonates with **the theme of “deep learning through inquiry and discussion”**. This was triangulated by parent interview data. Many parents in our qualitative study believed that the inquiry and discussion-based learning approach of the IB programmes enables their students to engage in in-depth learning compared with the conventional educational curriculum. They particularly emphasized that such practical educational experiences, individually and collectively, helped students retain what they learned much longer.

*It's more action-oriented, unlike the national curriculum-based traditional education. In a regular school setting students are to learn the general content, but in our school, they directly search and find out how things work, connecting it with real-life experiences...(PYP, Parent L,)*

*My son has just started first grade...As he engages in debates, he not only forms his own opinions but also listens to others', which is crucial for exploration and ultimately leads to reflection. He finds debating so enjoyable that he thinks it would be great if high school and even college could continue in this vein...(MYP, Parent JSH)*

In a broad sense, “enhancing thinking skills” is also related to **the theme “enhanced students’ life skills based on the Learner Profile.”** Teachers in our qualitative study remarked that implementing IB programmes enhanced students’ life skills, aligning with the IB Learner Profile. Furthermore, MYP and DP students in particular reported that they learned how to better reflect on themselves.

**Improving Self-Directed Learning Skills:** “Improving self-directed learning skills” was the second most valued benefit identified in the student survey data. Our interview data from teachers supported this point. One of our main themes was **“enhanced students’ self-directed**

**learning**” which exactly reflects the survey finding. In our qualitative study, many students noted an improvement in their self-directed learning through a series of experiences in presentations, inquiries, and discussion-based learning in IB schools.

*Originally, before attending IB, I wasn't good at taking initiative, but now that I'm doing IB, I think I've gotten used to it and have been able to overcome some of the difficulties by solving workbooks at home. (PYP, student G)*

Furthermore, the coordinators highlighted the improvement of students' academic capabilities and the increase in students' task commitment and self-directed study.

*... Now, in my English class when I say, 'Let's make a presentation,' the kids ask, 'Teacher, how should we cite the sources of the pictures?' If I don't suggest it, they always bring it up first... (MYP Coordinator E)*

*IB certainly enhances competence through classes. It's clear that speaking and writing skills improve, and I've even seen very helpless kids become more proactive. (MYP Coordinator B)*

Teachers believed that their schools are effectively supporting student self-directed learning, particularly through individualized feedback and diverse assessment tools. The average score across all statements was 4.30 (SD = 0.67), indicating a generally positive perception among teachers regarding their schools' support for self-directed learning: a scale from 1 (strongly disagree) to 5 (strongly agree). This may evidence that the cultivation of students' self-directed learning ability is emphasized in the process of implementing IB programmes.

### Teachers' Perception of School Support for Student Self-Directed Learning

Statements	Mean	SD
Individualized feedback based on assessment results	4.40	0.67
Using diverse assessment tools for students' learning process	4.36	0.72
<b>AVG.</b>	<b>4.30</b>	<b>0.67</b>
Opportunities for students to make independent judgements and choices	4.25	0.80
The ability for students to direct own learning plan and progress	4.19	0.80

Notes. N=278. a scale from 1 (strongly disagree) to 5 (strongly agree).

There was another theme from the qualitative study which can be linked to “enhanced self-directed learning skills” from the student survey –i.e., **private supplementary tutoring not necessary**. Given the improved self-directed learning skills, overall, IB students felt that private supplementary tutoring was not necessary because IB assessments are different from the traditional paper-based assessments in regular schools, and importantly IB education places emphasis on self-directed learning. This phenomenon was found mostly in MYP students.

*For some reason, in my previous school, I studied at school now, but it was a bit difficult to keep up if I didn't get private supplementary tutoring and*

*go to an academy. "After coming to IB OO middle school, I felt like I didn't need any private education anymore. (MYP, student D)*

*I don't go to an academy, and if you look at my friends around me, they go there a lot. First of all, our course is very different from the academy's course, and then each teacher places different importance on it. Even if you look at the same concept, if you want to learn about that part, it is better to just study on your own rather than going to an academy. Going to an academy is slightly less effective, and studying on your own helps you remember the teacher's explanations a lot because you can remember them. "I really do a lot of self-directed learning, almost 100% of the time. (MYP, student F)*

Notably, our analysis of the teacher survey data shows that teachers remained generally unconcerned about the issue. Similarly, DP students in the student survey data generally disagreed that IB induces private supplementary tutoring (see Chapter 4 for details).

**Increasing Participation and Engagement in Classes:** Our qualitative findings are also linked with **"increasing participation and engagement in classes,"** the third most recognized benefit from the student survey. The following three themes resonate with the survey finding:

- Benefits of IB education linked to reality
- Good friendship and mutual growth
- Students enjoying a happy school life

The theme **"benefits of IB education linked to reality"** refers to students' perception of differentiated and advantageous aspects of IB education compared to regular schools in terms of improved ability of time use, criteria-based assessment, ability to immediately apply what they learned to real life contexts. Students felt proud of attending an IB school due to these differences and advantages.

*I think that since the class is now based on a concept-based inquiry process, It seems to stay in my mind a little longer than the simple cramming education I did before. Also, rather than learning simple knowledge, I am awakening concepts and principles through UOI exploration. I think the biggest difference is that I applied this to my life. (PYP, student J)*

*... I feel a bit proud of the fact that I am now receiving a different education than other children receiving public education. And I believe that IB education is now much better than cramming by focusing on the process and nurturing practical problem-solving skills. (MYP, student P)*

*Because, for example, I had a really hard time with math, for example, I would write math reports or research questions like this in my daily life without even thinking about it, but in the IB curriculum, this is compulsory, so I thought I'd give it a try, so I asked the question. [interviewer: Are you looking for something like this in your daily life?] There is a lidar car for*

*the visually impaired, and I thought about where the rider should be positioned so that the visually impaired can have a wider field of view. Wasn't this a curriculum that allowed me to think more expansively about a wide variety of subjects? I wanted to. (DP, student M)*

Another related theme is “**good friendship and mutual growth**,” referring to positive peer relationships based on collaborative learning activities. Because students commonly participate in many collaborative activities with their friends, they felt that their peer relationships were becoming smoother and that they were growing together through the process of exchanging feedback with their friends.

*What's a little different for me is that when I engage in discussion activities, I randomly select seats, and now I end up talking and sharing opinions with friends I've never had a chance to talk to or with friends I've never really had any contact with. In that process, I think my horizons have broadened, and I've made a lot of different friends, and the overall atmosphere has been quite lively. I get to give and receive feedback with my friends, that kind of cooperation, and the bonds between friends, so I guess I'm stronger than at other schools. (MYP, student K)*

Lastly, the theme “**students enjoying a happy school life**” corresponds to the survey finding of **increasing participation and engagement in classes**. The theme was mainly developed from parent interview data. Parents commonly reported that their children are happy to go to school and they reflected on their school life as joyful.

*Parent Y: But with IB, we are surprised to see our children happily going to school. Many came from Seoul, where such a thing is unimaginable. But seeing their child eagerly attend school upon waking up, many mothers said they're satisfied just with that. (PYP, Parents Y & D)*

*It's not just about what I think, but I was worried OO might not want to go and just going because I wanted them to. But he said even if they had to choose again, he would choose OO high school and the IB education. So, I asked why, and he said he had a very happy high school life for all three years, and it seemed to be because of the IB education. He mentioned that if he had spent all three years solely focused on memorizing for quantitative assessments, he wouldn't have had these thoughts. But because he underwent IB education, he was truly happy. Is it even possible to have such a happy senior year in high school? (DP, Parent Q)*

Principal interview data also highlighted that after the implementation of the IB programme, in general, students were enjoying school life. These changes were attributed to the increased student agency, which shifted the focus of classes and learning onto the students.

*Due to the rise of their agency, students find school life enjoyable. Coming to school is fun... They participate more actively in class because it's*



*enjoyable. Instead of me telling the kids what to think, creating an atmosphere where they can freely express themselves, even those who find it difficult to speak up can write their thoughts on stickers and share them. This creates a more open environment where everyone feels free to speak. So, they've become more actively engaged in class. Then, of course, when it comes to planning, guiding the students and teachers, but since most of the content comes from the students' opinions, it's more student-led. They've developed a lot of agency in planning and learning through inquiry. These are the changes in students. Parents now see their children coming home and finding something on their own. Before, it was just forced studying, doing homework, but now they come home and talk about what they learned at school. 'Dad, Mom, today I learned this,' and they take on these roles. So, because their opinions are reflected and they can solve problems the way they think, they like it. That's why trust in school education is growing. (PYP Principal H)*

**Other Perceived Benefits of IB Education by Students and Parents:** Besides the key perceived benefits above, there were other benefits perceived by students and parents as follows:

#### Students

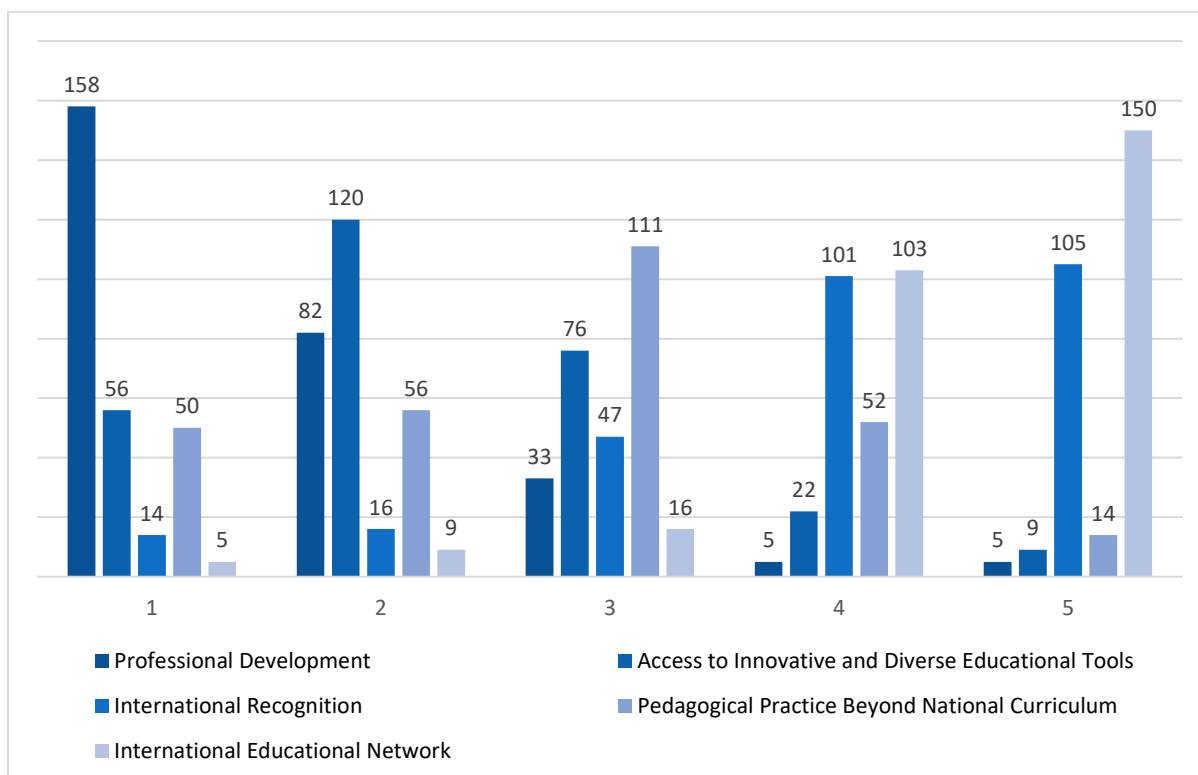
- Advantages in preparing for higher-level schools
- Improvement in writing and speaking skills
- Heightened global citizenship awareness

#### Parents

- Improved parent-child relationships
- Parents' satisfaction with school and local education authority

While most of these benefits were also found in the survey data, they were particularly salient in our qualitative study. For example, our survey of students' Learner Profile shows a moderately high level of self-rating on Caring (4.74) and Open-mindedness (4.70) on a Likert scale from 1 (strongly disagree) to 6 (strongly agree). Similarly, our interview data shows that many students commonly felt that their global awareness and caring for others was cultivated through IB education, demonstrating the role of IB education in cultivating global citizenship.

**Teachers' Perceived Benefits from Implementation of IB Programmes:** As presented in the figure below, teachers in the survey study indicated that **Professional Development** was considered the most significant benefit, with 158 respondents ranking it as the most important (1st), and it consistently received high rankings overall. Following this, **Access to Innovative and Diverse Educational Tools** was also highly valued. Access to an International Educational Network was the least prioritized, with a majority of respondents ranking it 5<sup>th</sup>.



### Teachers' Perceived Importance of IB Teaching Benefits by Rank (N = 283)

Note. 1 = the most important benefit, 5 = the least important benefit

The pattern was consistent regardless of programme status or teachers' role within the school (regular teachers vs. teachers in leadership positions). Since professional development was the most significant benefit for many teachers, we also explored the usefulness of various professional development activities related to IB education in which they participated. The results are presented in the table below.

### Teachers' Perceived Usefulness of IB Specific Professional Development

Response	Not Useful At all (1)	Not Useful (2)	Neutral (3)	Useful (4)	Very Useful (5)
Teacher Training by IB	2%	3%	11%	36%	48%
From Local Education Office	1%	3%	20%	40%	37%
PLCs	1%	1%	8%	25%	65%
Training at Other Schools	2%	2%	16%	36%	44%
International Conferences	5%	6%	19%	29%	40%
Seminars	4%	5%	20%	35%	36%
IBEC	6%	6%	32%	35%	20%

Overall, **school-based PLCs, teacher training provided by the IB, training at other schools, and teacher training provided by the local education office** were perceived **in order of**

**usefulness.** IBEC, by contrast, received more mixed reviews. These findings show that teachers were actively participating in school-based PLCs and externally provided PD, which contributes to their professional growth, and that they are mostly very satisfied with these experiences. The low usefulness of IBEC suggests the need for improvements in the IBEC curriculum offered by local universities in South Korea.

Interestingly, PYP teachers reported more utility of school-based PLC and PD at other schools, which resonates with prior research on PLC (see Chapter 4 for details). This finding shows that in elementary education, there is, in general, less fragmentation of subjects and a more integrated approach to teaching, which makes PLCs more effective compared to secondary education (e.g., Lee & Louis, 2019; Lee, Louis, & Anderson, 2012).

More importantly, the finding of **teachers' value in professional development activities** such as school-based PLCs for **their professional growth** well aligns with the following themes developed from the teacher interview data. Most teachers highlighted that their professional development for the purpose of implementing IB programmes effectively enabled them to enhance their professional practices such as assessment skills.

*I had to put a lot of thought into aligning the assessments, and throughout the process, I couldn't help but analyze what standardized and globally emphasized assessment criteria were. During the application of these criteria, I realized that I had been unaware of many of these aspects while teaching, and I hadn't even considered how essential they were. So, I had many thoughts like, "Oh, I've been teaching without knowing these things," and "These are really necessary." Thus, I reflected a lot on the detailed elements of assessment, and going a bit further, back when I was teaching at a science-focused school, I used to mainly focus on solving problems geared towards the university entrance exam...(DP, teacher KJ.)*

## 2.2. CHALLENGES AND ISSUES OF IMPLEMENTATION OF IB PROGRAMMES

**Students' Perceived Challenges of IB Education:** Through the survey, students identified the top three perceived challenges of IB education. The table below lists these challenges in the order of frequency selected by the students. The challenges were, by large, divided into three groups: the top three, the middle two, and the bottom three. The three predominant challenges in relation to IB education, perceived by students, were: "**broad subject scope**", "**personality suitability required for IB education**", and "**excessive assignments**".

### Students' Perceived Challenges of IB Education

Challenges	Freq.
<b>Broad subject scope</b>	1,457
<b>Personality suitability required</b>	1,440
<b>Excessive assignments</b>	1,405
High level of content difficulty	1,254
High stress from group activities	1,105

Limited coverage of knowledge	553
Disadvantageous for university admissions	550
Less trust in assessments	495

Regarding “broad subject scope”, it is also reported in other IB studies conducted in other countries (e.g., Hallinger et al., 2010). Perhaps, the challenge more specific to IB students in the context of South Korea seems to be “personality suitability required for IB education” and “excessive assignments”.

Specifically, it is worth explaining students’ concern for “personality suitability required” in the context of South Korea. Our interview data suggests that students generally understood IB education to be more inquiry-based, student-led, project-based, and involving diverse learning activities and assessments. Some students appeared to be concerned about a (perceived) mismatch between their personal characteristics, which have become accustomed to more traditional ways of learning. Similarly, many parents felt that the IB works, depending on the student’s personality or characteristics, implying that there are certain individual characteristics that are better suited for IB programmes than others. Parents mentioned that extroverted students who are willing to do presentations are more apt for the IB programme. Some parents also thought that students accustomed to the traditional style of learning prevalent in the national curriculum might find it difficult to succeed when learning through an IB framework, given that different student abilities are required.

Regarding the challenge of “excessive assignments”, it was predominantly echoed by parent interview data. Although all the parents participating in the interviews expressed positive views of their children’s learning experiences in the IB, they also felt that the IB programmes themselves were difficult for their children to undertake, especially due to the various assignments required: “...the performance assessments are incredibly demanding, and there are many assignments...” (MYP, Parent H). “..., my child was continuously doing performance tasks and summaries and was taking the final exam at the end” (Parent J). In a similar vein, most MYP students reported “too many assignments” as a major challenge during the interviews. Many students, particularly in the MYP, reported that it is difficult to have to take summative assessment (e.g., final exam) required by the national curriculum while they are asked to work on assignments and projects from the MYP simultaneously, and the assessment periods overlapped, increasing the need for greater preparation time. Nonetheless, it should be noted that the additional assignments and assessments (e.g., summative exam) in the PYP and MYP are determined by schools, not required by the IB. The issue fundamentally stems from the difficulty in aligning the national curriculum with the assessment criteria and strands for the PYP and MYP, which are detailed later in this chapter.

**Continuation in IB Education and University Admission:** In line with the challenges recognized by students, we explored a potentially more practical challenge, which is about continuation in IB education and university admission. As the implementation of the IB programmes requires the recontextualization of the national curriculum into the IB curriculum framework, there have been discussions about actual and potential systemic mismatches between the two (Lee, 2019). The systemic mismatch issues are salient in the DP, given that it does not yet align well with South Korea’s university admission system, which is heavily based

on the College Scholastic Ability Test (CSAT), the national exam for university entrance. Specifically, DP graduates in South Korea are eligible to apply for only certain admission tracks that do not require a minimum CSAT score for university entrance. As of 2024, approximately one-third of the total university admissions quota does not require a minimum CSAT score. As such, many DP students are concerned that they cannot help but to give up the possibility of applying for the other two-thirds of the admission quota right from the start in the competitive university admissions process. This concern is also reflected in PYP and MYP students' willingness to choose the IB for their next level of schooling, as presented in the table below.

### Students' Willingness to Choose IB for Educational Transition

Programme	N	Min	Max	Mean	SD
PYP	738	1	6	4.55	1.54
MYP	1,851	1	6	3.26	1.64
Overall Average	2,589	1	6	3.63	1.71

a scale from 1 (strongly disagree) to 6 (strongly agree).

Responses in the table above were measured on a Likert scale from 1 to 6. On average, PYP students scored 4.55, indicating slight agreement, while MYP students scored 3.26, indicating slight disagreement. This relatively **lower willingness among middle school students** could be attributed to their concerns about the disadvantages in university admissions described above, as they will move onto upper-secondary education.

Our qualitative data from teachers and parents provided, however, a more nuanced story. On the one hand, similar to the survey finding, many teachers and parents were concerned about the possibility that undertaking IB education could be a disadvantage in the Korean university admissions process. On the other hand, some parents considered the IB programmes to be advantageous in non-standardized university admission tracks (e.g., *haksaengbu jonghap jeonhyeong*, *gyogwa jeonhyeong*, *nonsul jeonhyeong*, *teuggija jeonhyeong*)<sup>1</sup> where the focus is on performance assessments or comprehensive student records. They reported that the depth of learning activities in the IB allows students to internalize what they learned with greater impression, giving them an edge in admission interviews. Furthermore, the shift towards performance assessments in the current Korean public middle and high school grading systems suggests that IB could also be advantageous for advancing to higher education levels.

*... the various activities that students have taken part in through IB can be documented in the NEIS [National Education Information System]... but we can't fit them all into the given space [500 characteristics maximum for the purpose of university admission] that the transcript allows, so if possible we would like [admissions officers] to take into account that the*

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<sup>1</sup> There are several admission tracks for university entrance in South Korea. Currently, DP graduates are eligible to enter universities through the comprehensive student record screening (*haksaengbu jonghap jeonhyeong*), the academic subject achievement screening (*gyogwa jeonhyeong*) or essay-based screening (*nonsul jeonhyeong*). Some Korean universities also select DP graduates through talent-based admissions (*teuggija jeonhyeong*). The admission places available through these tracks account for approximately one-third of the total spots.

*fact that these students have done the IB curriculum means that they have done a lot more and taken a lot more initiative than what is actually recorded on the transcript. (DP, Teacher CS)*

More details are presented in the theme “two sides of one coin: Korean university admission” in our qualitative study.

**Teachers’ Perceived Challenges and Issues in Implementation of IB Programmes:** We sought to explore challenges and issues associated with implementing IB programmes, asking respondents to indicate their level of agreement with various statements: a scale from 1 (strongly disagree) to 6 (strongly agree). The average rating across all statements was 4.27 (SD = 0.91), indicating a generally high level of perceived challenges, as presented in table below.

### Teachers’ Perceived Challenges in Programme Implementation

Statements	Mean	SD
Burden of dual assessments	4.96	1.40
High cost of implementing IB	4.96	1.27
Qualitative criteria-based assessments	4.82	1.26
Collaborative assessments with other teachers	4.80	1.32
Implementation within the national education system	4.76	1.39
Disadvantageous for Korean college admissions	4.67	1.31
Sharing materials with external stakeholders	4.64	1.32
Compatibility with the NEIS system	4.56	1.45
Reference materials	4.48	1.41
Language barriers	4.44	1.44
<b>AVG.</b>	<b>4.27</b>	<b>0.91</b>
Information management system of student record	4.26	1.56
Collaborating with teachers	4.15	1.56
Ensuring acquisition of basic knowledge by students	4.02	1.58
Unclear assessment criteria	3.90	1.46
Overly broad scope of subject contents	3.79	1.43
Applying IB in the Korean context	3.78	1.45
High level of subject content	3.62	1.43
Overly broad scope of assessment	3.62	1.40
High level of assessment standards	3.60	1.44
Teacher assessment capabilities	3.52	1.34

Note. N=290, scale 1 = strongly disagree, 6 = strongly agree

Specifically, the most significant challenges perceived by teachers included **the burden of dual assessments** (i.e., assessments required by the IB programmes and the national curriculum) and **the high cost of implementing IB** (e.g., annual fee, cost for mandatory PD), both receiving the highest mean score of 4.96. Other notable challenges included **conducting and marking qualitative criteria-based assessments** (M = 4.82, SD = 1.26) and **collaborative assessments with other teachers** (M = 4.80, SD = 1.32), both of which were also rated high. Additionally, teachers expressed concerns about the challenges of **implementing IB within the national education system** (M = 4.76, SD = 1.39) and the perceived disadvantages of IB students for **university admissions to Korean Universities** (M = 4.67, SD = 1.31).

Our qualitative data highlights that the high costs associated with implementing an IB programme pose a significant challenge. Specifically, concerns have been raised about the sustainability of IB programmes due to the annual membership fees and the expenses related to professional development required by the IB. Teachers expressed worries about potential funding cuts or the discontinuation of the programme if the local education authority's policies change. This is a concern because the policies can shift with each new superintendent, who is elected every four years. Additionally, other challenges identified in the survey data were also reflected in the qualitative interview findings. Issues related to dual assessments, the national curriculum, and the assessment recording system were salient in our interview excerpts. Combining the findings from both qualitative and quantitative data, it can be concluded that the challenges and issues noted above were occurring not only in the nine schools in our qualitative studies but also across the 18 schools in general. These findings suggest that policy measures are needed at both local education authority and central government levels (given that the issues are related to the “national” curriculum and exam) that can address the prevailing challenges and issues in implementing IB programmes.

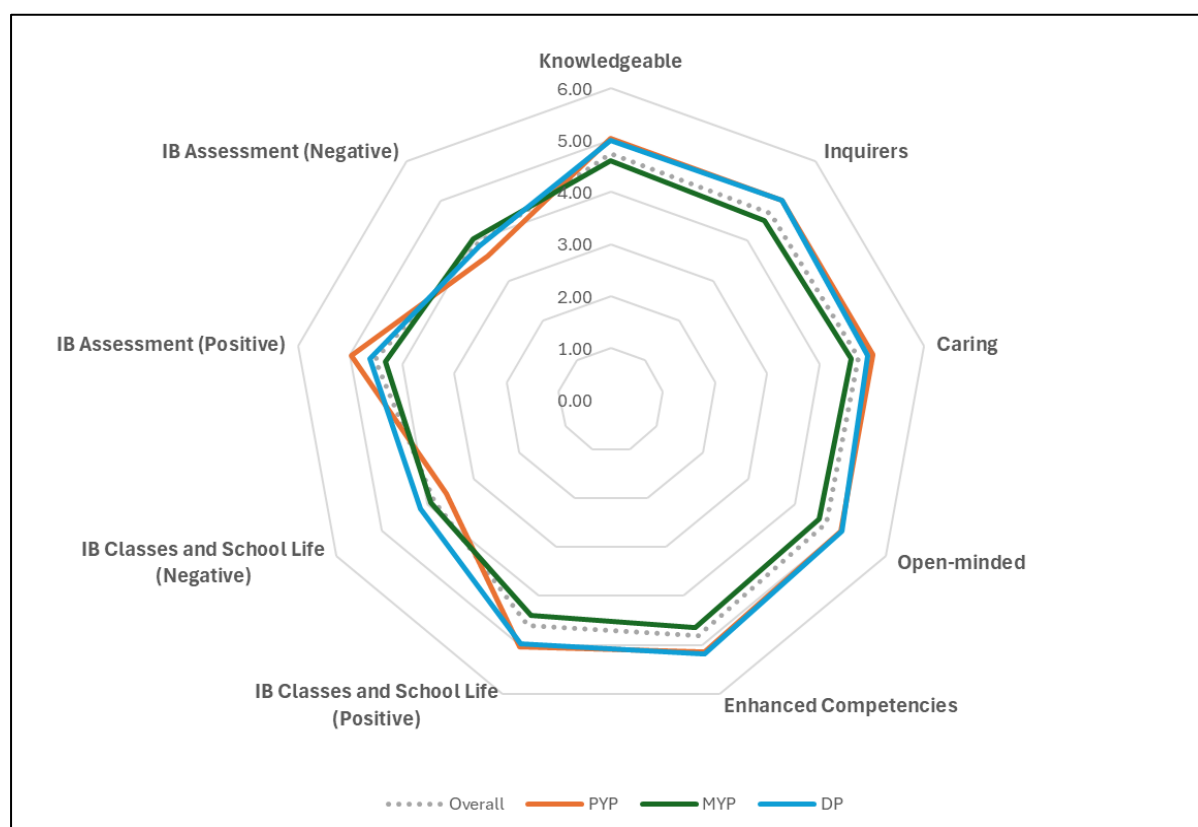
**Other Challenges and Issues from the Qualitative Study:** Our qualitative study further revealed challenges and issues mentioned across different stakeholders (e.g., students, parents, principals), but mostly raised by teachers and coordinators. The key themes are listed below (more details for each theme are explained in Chapter 3):

- Lack of basic academic skills and knowledge
- Double disadvantages and dual burden for certain student groups
- Suitability of student characteristics for the IB
- Learning challenges from students' perspectives
- Parents' limited understanding of IB assessment
- Limitations in IB training, guidelines, and materials
- Ambiguity in the role of coordinators
- IB being perceived as Western-centric
- Difficulty in forming shared understanding of the IB
- Uncertainty, mismatch, and disadvantage for DP students in Korean university admission
- Challenges in implementing IB programmes within the Korean National Curriculum
- Lack of IB elective subjects
- Mismatch or disconnect with the Korean administrative system

### 2.3. CHANGES THROUGH THE IMPLEMENTATION OF IB PROGRAMMES

**Changes Students Attribute to implementation of IB Programmes:** The figure below illustrates perceived changes in students’ learning attributes, skills, and school life since their IB programmes implementation. Overall IB students stated a moderate to high level of perceived changes, which corresponds to many positive quotes from the student interview data.

At the same time, a notable difference among groups is that MYP students had lower overall averages when compared with PYP and DP students. Conversely, MYP students had higher negative perceptions of IB assessments, IB classes and school life generally. This finding seems to be related to the theme of “excessive assignments” noted earlier, which was more salient among MYP students in the interview data. This suggests a need to explore which aspects of the MYP can be improved in the process of implementing the MYP in Korean public schools.

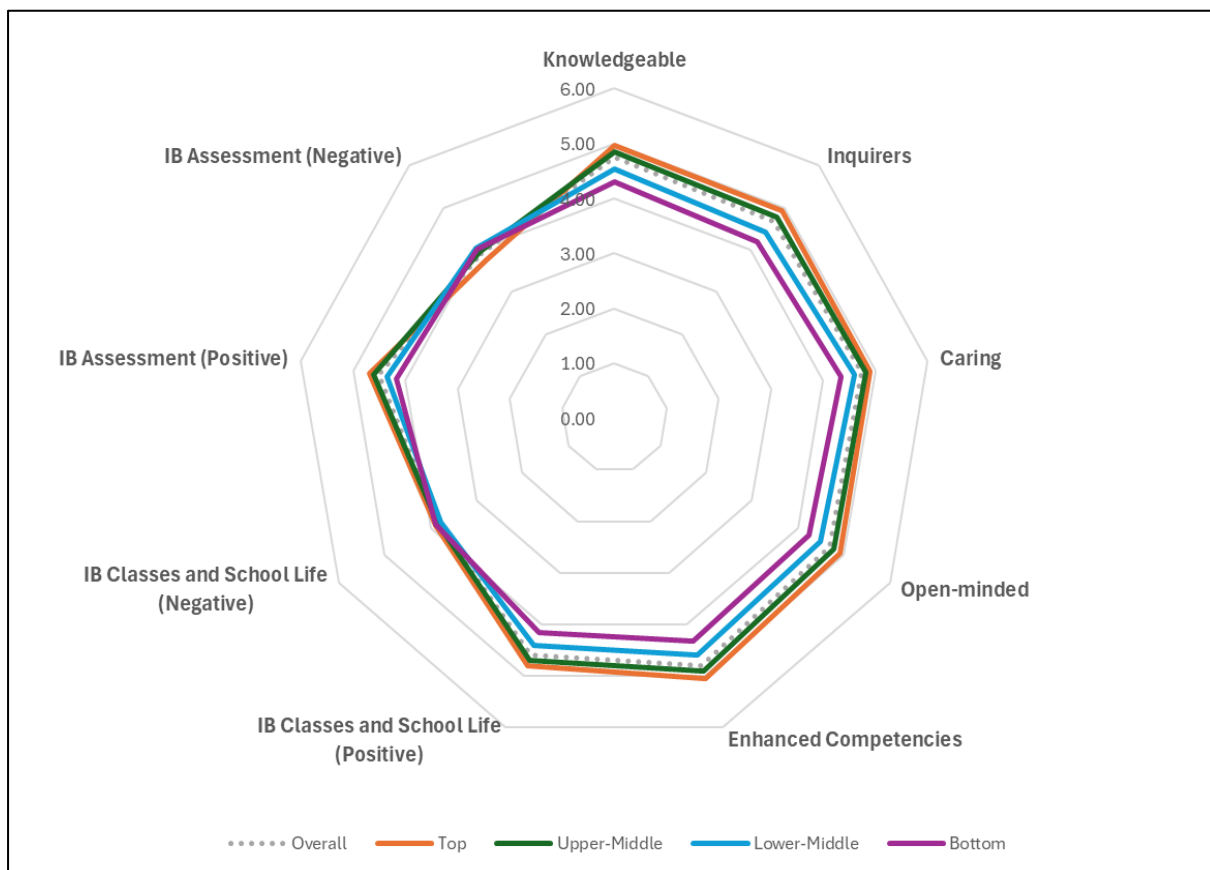


**Students' Experiences of Changes by Programme**

Note. a scale from 1 (strongly disagree) to 6 (strongly agree)

The figure below shows students’ experiences of changes when students were divided into four groups based on their academic performance. Aside from the negative aspects of IB classes/school life and assessments, high-performing students tended to have the most positive perceptions of changes due to IB education, particularly appreciating improvements in critical thinking and self-directed learning skills. Students with a lower academic performance still reported positive experiences, considering the average scores were above 4 on a 6-point Likert scale, but their scores were lower when compared with other groups, as evidenced in the image below.





### Students' Experiences of Change by Academic Performance Level

Note. a scale from 1 (strongly disagree) to 6 (strongly agree)

**Changes Teachers Attribute to implementation of IB Programmes:** We explored teacher's level of agreement with statements about what IB education has changed, using a scale from 1 (strongly disagree) to 6 (strongly agree). The results are presented in the table and figure below.

Teachers generally had a positive view of changes influenced by the implementation of the IB in their schools, with an average agreement score of 5.10 (SD = 0.90). This suggests that the implementation of IB programmes is seen as **having a significant positive impact on various aspects of the school environment and teachers' practices**. The highest levels of agreement were observed for statements related to **teachers' professionalism and teaching practices**, both with a mean score of 5.34, suggesting that IB education is perceived to have greatly enhanced the professional standards and instructional methods of teachers. Similarly, **the development of PLC** (Mean = 5.30, SD = 1.03) and **the relationship between teachers and students** (Mean = 5.29, SD = 0.99) were also rated highly, indicating a positive shift in collaboration and interaction within the school environment. Other areas where teachers reported strong agreement include **teachers' expertise in assessment** (Mean = 5.26, SD = 0.98) and **student collaboration and communication** (Mean = 5.25, SD = 1.00). These results suggest that IB education is seen as enhancing both the assessment capabilities of teachers and the collaborative skills of students. In summary, our findings demonstrate teachers' positive views of a range of changes brought about by implementing IB programmes. These results resonate with a recent IB commissioned research of IB teaching professionals conducted in eight societies (see Lee et al., 2022a).

## Teachers' Perceived Changes Due to IB Programme Implementation

Statements	Mean	SD
Teachers' professionalism	5.34	0.94
Teaching practices	5.34	0.99
Professional Learning Communities	5.30	1.03
Relationship b/w teachers and students	5.29	0.99
Teachers' expertise in assessment	5.26	0.98
Student collaboration/Communication	5.25	1.00
Teachers' dedication	5.23	1.03
<b>AVG.</b>	<b>5.10</b>	<b>0.90</b>
Instructional autonomy	5.09	1.24
The essence of education and instruction	4.96	1.29
Integrative education	4.92	1.20
Students' overall satisfaction	4.91	1.14
Teachers' autonomy in assessment	4.87	1.33
Reduced competition	4.79	1.31
Reliability and validity of assessments	4.79	1.23

Note. N=297, scale from 1 (strongly disagree) to 6 (strongly agree). For specific each statement, see Question 2 of the Teacher Survey Questionnaire in Appendix 4-1.

Notably, the following key themes developed from the interview data resonate with some of the changes presented in the table above.

- Enhanced teachers' assessment skills
- Teachers' sense of professional growth through collaboration
- Enhanced understanding of teaching practices
- Teachers' commitment and caring

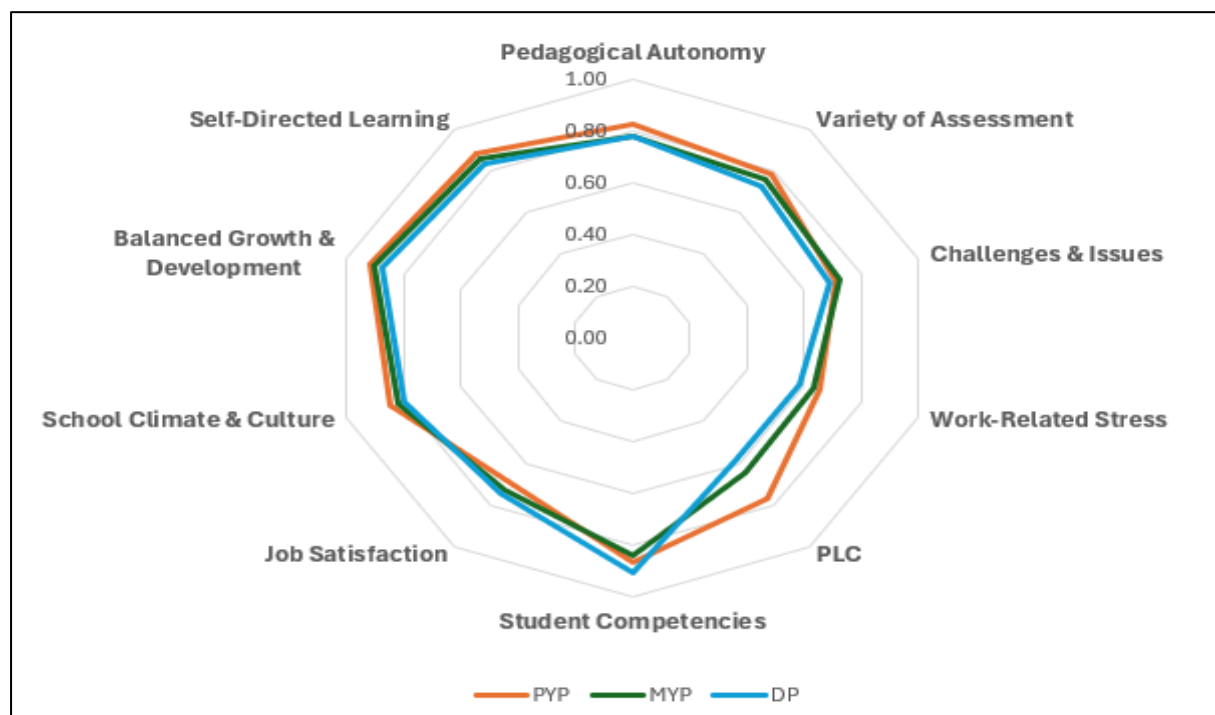
Specifically, teachers largely agreed that their **assessment skills improved** through the preparation and implementation of the IB. They perceived that they enhanced process-based assessment and criteria-referenced assessment, leading to increased trust from students and parents in the validity and reliability of student assessments. The most frequently identified perception among teachers was their sense of **professional growth through collaboration**, which is an integral part of implementing IB programmes. Teachers perceived that they were able to enhance their expertise through **formal and informal professional learning communities, in and outside of the schools**. In particular, many teachers noted that they had opportunities to improve **the coherence among curriculum, lessons, assessments, and reporting** in the process of their IB programme implementation. Teachers also noted that they were able to

achieve a shared understanding of the IB’s mission, vision, and Learner Profile. Given that teachers’ **sense of professionalism and a mastery of certain skills** in relation to their teaching and assessment are also found in other IB studies in South Korea (e.g., Byeon et al., 2023), this finding seems to be applicable to many IB schools in South Korea. Our survey data analysis also supports this finding. Within this context, parents also perceived that teachers implementing an IB programme provided significant dedication and care to students in many aspects, including educational activities and school life. They appreciated the **teachers’ efforts** to address challenges that may arise in essay writing or collaborative activities; challenges that are less common in the Korean national curriculum due to the general absence of such tasks. Parents also appreciated teachers’ willingness to actively engage in proactive one-on-one communication with students aimed at enhancing their understanding and adaptation. Students also appreciated **their teachers’ support and care**. More details are presented in Chapter 3.

#### 2.4. PROFILED FEATURES OF IMPLEMENTATION OF IB PROGRAMMES

The figure below shows the profiled features of IB programme implementation. Overall, teachers showed fairly positive perceptions of the following areas in relation to the implementation of IB programmes in their school:

- Supporting students’ balanced growth and development: PYP (0.92), MYP (0.90), DP (0.88)
- Enhanced student competences: PYP (0.87), MYP (0.84), DP (0.91)
- Supporting students’ self-directed learning: PYP (0.88), MYP (0.86), and DP (0.83)
- School climate and culture: PYP (0.85), MYP (0.82), and DP (0.80)
- Pedagogical autonomy: PYP (0.83), MYP (0.78), and DP (0.78)
- Using various assessments: PYP (0.78), MYP (0.76), and DP (0.73)



**Profiled Features of Implementation of IB Programmes**

Note. a standardized scale from 0 (strongly disagree) to 1 (strongly agree), drawn from originally different Likert scales.

Some of the survey findings above resonate with findings from the teacher interview data. Specifically, teachers believed that **IB education strongly supports the development of a wide range of student competencies**, particularly in areas related to inquiry, self-expression, and problem-solving, though there is still room for improvement in English language skills. Regarding **supporting students' self-directed learning**, all the key stakeholders in our qualitative study mentioned the link between IB education and students' enhanced self-directed learning.

In the figure above, teachers showed a moderate level of positive perceptions of the following areas in relation to the implementation of IB programmes in their school:

- Job satisfaction: PYP (0.69), MYP (0.72), and DP (0.74)
- PLC: PYP (0.77), MYP (0.64), and DP (0.58)

Our qualitative data provides an explanation for the moderate level of positive perceptions of teachers' job satisfaction. As noted earlier, a vast majority of teachers expressed a sense of professional growth and mastery through IB programme implementation. At the same time, however, the implementation of the IB seems to have significantly increased the workload for teachers, including unit development, open classroom teaching, co-assessment, double assessment, and submission and storage of assessment evidence, which has led to a decrease in job satisfaction. They also felt that they did not have enough time to provide sufficient feedback to students due to excessive work hours. On the other hand, many teachers felt a great sense of fulfillment as they saw the improvement in the quality of their teaching and the progress of their students.

*The IB teachers help the heads of departments with their work, and they also help the low-experienced or new teachers with their lessons and assessments... I'm usually a very fast worker and I have a big capacity, but this year I'm a little bit overloaded. I don't have a problem if I just do school work, but now there's a lot of IB-related stuffs... I'm a little bit anxious that I'm not going to be able to do this for a long time. (MYP teacher KY)*

Our qualitative study offers some possible explanations for the moderate level of teachers' perceptions of PLC. We note that in relation to school-based PLCs, not all participating schools were active on PLCs in an authentic sense from the beginning. The depth of teachers' practice of PLCs in the early years of IB programme implementation was strongly influenced by the culture of the school community that had previously been established in each of the schools: in schools where PLCs had been actively practiced prior to the introduction of the IB, authentic discussions about teaching and assessment took place in the PLCs from the very beginning of IB implementation. On the other hand, in the case of schools where PLCs had rarely been practiced before the introduction of IB, there was little more than administrative talk in the PLCs (e.g. how to distribute IB-related tasks among teachers). However, even in the latter schools, as they became more deeply and continuously involved in their IB programme's implementation, their PLCs gradually began to focus more on students, teaching and assessment.

Finally, regarding the following two negative areas, teachers indicated a moderately high level of agreement, suggesting that there are **somewhat substantive issues and work-related stress** in relation to the implementation of IB programmes in their school.

- Challenges and issues: PYP (0.71), MYP (0.72), and DP (0.69)

- Work-related stress: PYP (0.66), MYP (0.64), and DP (0.58)

We explored the extent to which various stress factors impact teachers in their current roles, with responses rated on a scale from 1 (no impact) to 4 (significant impact). The results are presented in the table below. Among the various stress factors, **excessive lesson preparation** received the highest level of perceived impact by teachers; the mean score of 3.31 (SD = 0.85). This suggests that preparing lessons is a considerable source of stress for many teachers. Following this, **both the burden of grading and excessive administrative tasks** also ranked highly, each with a mean score of 3.13, indicating that these tasks too significantly contribute to work-related stress. **Excessive teaching load** (M = 3.07, SD = 0.96) and **the responsibility for student achievement** (M = 2.97, SD = 0.91) were also notable stress factors, though slightly less impactful than the top three outlined above.

### Teachers' Perceived Stress Factors

Statements	Mean	SD
Excessive lesson preparation	3.31	0.85
Burden of grading	3.13	0.99
Excessive administrative tasks	3.13	0.95
Excessive teaching load	3.07	0.96
Responsibility for student achievement	2.97	0.91
Applying requirements from Education Office	2.85	1.02
Ambiguity in interpreting IB framework	2.72	1.01
Parent complaints	2.61	1.12
<b>AVG.</b>	<b>2.53</b>	<b>0.63</b>
Maintaining discipline in the classroom	2.48	1.06
Reconstructing lessons for special education students	2.04	1.03
Difference form parental educational perspectives	1.94	1.00
Additional work due to teacher shortages	1.83	1.01
Isolation from local community	1.73	0.94
Violence from students	1.55	0.86

Note. N=282, scale from 1 (no impact) to 4 (significant impact).

The issue of teachers' workload and potential burnout was also mentioned by many parents. Parents appreciated the dedication and care teachers in IB schools show towards students' educational activities and guidance. However, there were serious concerns about teacher burnout. Parents reported that teachers often work late and overtime, leading to skepticism about the sustainability of the IB programmes. The influx of students from other areas into IB schools in Jeju, resulting in larger school sizes, is also seen as a significant factor contributing to teacher exhaustion.

*So, when I go to high school once a week for about a week each year, I see teachers working overtime, having meetings, and spending time in the library. Each time I see this, I realize teachers are aware of other aspects, but can they really continue to endure this? (PYP, Parent J)*

## 2.5. AMBIVALENT VIEW OF IB PROGRAMME IMPLEMENTATION

Our qualitative study further provided more nuanced perceptions (i.e., ambivalent views) for IB Programme Implementation. As briefly mentioned earlier (e.g., Teachers' professional growth vs. teachers' workload and burnout; Two sides of one coin: Korean university admission), key stakeholders' perceptions of the implementation of the IB programmes highlight both positive and negative features of IB education in the context of South Korea. We reframe this phenomenon as ambivalence, as listed below (see Chapter 3 for details).

- Short-term challenges but long-term benefits
- Rigorous learning experiences but challenging
- Social-emotional competence vs. stress from collaborative learning
- Teachers' professional growth vs. teachers' workload and burnout
- Two sides of one coin: Korean university admission
- Growth of private supplementary tutoring to complement IB education vs. IB as a cure for private supplementary tutoring issues
- Potential synergy between the IB Programmes and National Curriculum

## 3. IMPLICATIONS AND CONCLUSIONS

As of August 2024, the implementation of the IB programmes in South Korea has seen significant growth, with 31 public schools currently authorized by the International Baccalaureate, alongside 100 schools expressing interest and 31 IB candidate schools. This accounts for approximately 1.1 percent of all K-12 schools in the country. This rapid expansion has sparked debates over the cost-effectiveness, qualitative superiority, and overall impact of the IB programmes when compared to the current national curriculum. Key concerns include whether IB students develop superior academic skills and competencies, if the programme is free from the influence of the shadow education market (e.g., cram schools offering private supplementary tutoring), the programme's impact on improving teacher professionalism, and the overall satisfaction of parents and schools with the IB education.

This study provides empirical evidence addressing these concerns, offering more positive responses regarding student competencies and wellbeing, teacher professionalism and expertise, and parental satisfaction. The findings are based on qualitative interviews and large-scale survey data, indicating that the implementation of the IB programmes has brought notable benefits to the 18 public schools.

For teachers, the IB programmes have been instrumental in enhancing their expertise, particularly in curriculum interpretation and process-based assessment. Teachers reported feelings of growth, accomplishment, and mastery, largely due to observing positive changes in student engagement and skills, as well as participating in school-based professional learning communities (PLCs). These PLCs have become a routine part of IB implementation, where teachers collaborate on curriculum development, teaching strategies, and assessment practices. This collaborative environment has been shown to enhance teachers' expertise and foster a positive school culture. In this regard, we conclude that school-based PLCs, promoted by the implementation of the IB programmes, are crucial for sustainable school improvement.

For students, the IB programmes have led to noticeable improvements in their school experience and relationships with teachers and peers. Students reported enhanced life skills, including thinking skills, self-expression, communication, global citizenship, inquiry, and self-directed learning. Although these findings are based on self-perception, they are corroborated by teachers and parents, indicating that the IB programmes have positively impacted on student development, particularly their competencies and relationships in school.

However, our study also found several challenges and issues in implementing the IB programmes in South Korea. A major concern was the heavy workload and potential burnout experienced by teachers. Many teachers expressed that they were putting an extraordinary amount of effort into implementing the IB, which raises questions about the sustainability of implementing the programmes if they rely too heavily on the dedication of individual teachers. In this regard, we suggest that it is crucial to address teacher workload and burnout at this stage to ensure the long-term success or sustainability of implementing the IB across South Korea. Drawn on the findings about teachers' work-related stress noted above, we suggest that policy support is needed for reducing administrative workload and promoting teachers' well-being. To work effectively for lesson preparation, we suggest that PLC should focus more on sharing resources and lesson materials and collaborating on lesson planning. Regarding the burden of grading and grade-related administrative tasks, utilizing edu-technology might be considered. Given that quite many public IB schools in South Korea were using Google Drive for managing student learning activities and lesson plans, systematic support for the utilization of ICT would be desirable. Finally, the significant group differences in work-related stress by programme warrant further investigation.

Institutional challenges also pose a threat to the sustainability of the IB in South Korea. We identified misalignments or mismatch between the national curriculum focused university entrance exams and the IB programmes (particularly the DP). This needs to be promptly addressed as a priority to ensure the programme's legitimacy and sustainability. Additionally, there is a need for research into concerns that have been raised about the financial implications given the fast-growing number of schools adopting the IB. At this stage, no research on the cost-effectiveness of IB programmes has been found.

In conclusion, while the implementation of the IB programmes has brought notable improvements to the 18 public schools in terms of student competencies and school life, teacher professionalism/expertise/collaboration, and parental satisfaction, several issues still need to be addressed to ensure their sustainability. A cautious step-by-step approach is recommended, focusing on addressing teacher workload, institutional alignment, and cost-effectiveness, with collaboration among policymakers, educators, parents, and students. We believe that this condition is essential to the sustainable implementation of the IB programmes in South Korea.

# 1. INTRODUCTION

## 1.1. Research Background

The South Korean schooling system has faced persistent criticism due to its hyper-competitive, high-stake university entrance exam, resulting in test-oriented school practices and student learning. Despite numerous attempts at education reform, the success has been limited, primarily because the transformation of the university entrance system is essential for comprehensive change in the education landscapes. The university entrance examination system, known as *Soo-Neung* (Korean College Scholastic Ability Test), involves lining up students for a single exam. As such, students have no choice but to engage in exhaustive memorization of knowledge to prepare for this exam, which mostly consists of multiple-choice questions. Under this circumstance, educating individuals for the future society who are innovative, collaborative, and possess critical thinking skills seems exceedingly challenging.

Recently, as one promising solution to this issue, International Baccalaureate (IB) programmes have been rapidly gaining prominence as an educational policy alternative in Korea (Lee et al., 2022b). The underlying rationale is the perception that the assessment methods employed in IB programmes are pedagogically progressive. Several policymakers highlight that students' academic ability is evaluated through a range of inquiry-based learning activities in IB programmes rather than relying heavily on multiple-choice examinations as in the case of the national test in South Korea. For example, the superintendent from the Daegu Metropolitan Office of Education commented that: "We will cultivate future talents with interdisciplinary creativity through the IB" (Eduin News, April 2019). In short, the IB has emerged as a readily embraced solution for rectifying the Korean educational systems that have long been hindered by fiercely competitive university entrance mechanisms (Lee et al., 2022b).

Apart from such a positive perception of IB programmes among influential policymakers, the perceptions of other key stakeholders (students, teachers, IB coordinators, principals, parents) on the implementation of IB programmes in the public education system remains largely uncharted by empirical research in South Korea. Within this context, understanding how IB programmes are being implemented in local schools is of great importance, given that the implementation of these programmes has been expanding to more local schools in several provinces through Memorandums of Understanding (MOU)s with the International Baccalaureate Organization (IBO) in recent years. In other words, it is crucial to examine the perceptions of other educational stakeholders towards the current implementation of IB programmes.

## 1.2. Research Goals and Questions

**To Profile the 18 IB schools' Contexts:** We aim to profile the 18 IB schools authorized in 2021 and 2022 by documenting key school characteristics and national curriculum required for these



schools. To this end, we examine the following question:

- RQ1. What are the landscapes of IB programme implementation in South Korea? Specifically, what are the contexts and characteristics of the 18 schools offering IB programmes?

**To Illuminate the Key Stakeholders' Perceptions of IB Programme Implementation:** In accordance with the RFP, we aim to map key stakeholders' perceptions of the implementation of IB programmes. We will focus on the following two questions:

- RQ2. What do stakeholders (i.e., principals, IB coordinators, teachers, students, parents) perceive to be the opportunities and key benefits of IB programme implementation?
- RQ3. What do stakeholders perceive to be the challenges and key issues of IB programme implementation? Specifically, what are the main challenges and identified solutions to implementing the IB programmes in parallel with current national curriculum requirements?

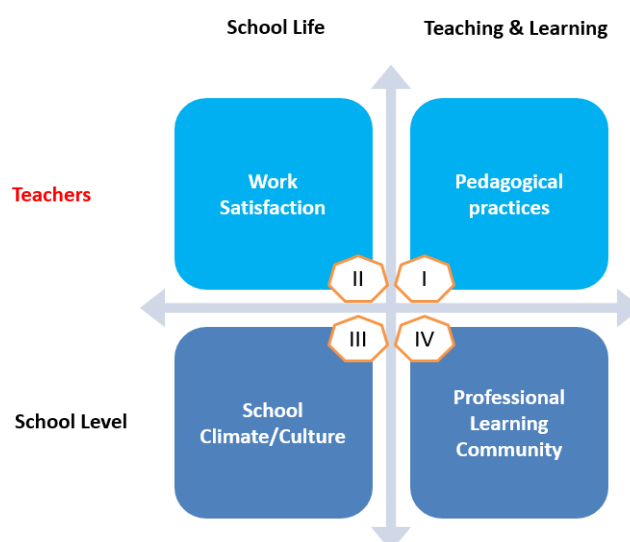
**To Identify the Changes in Student Learning, Teaching Practices, and School Organization:**

Resonating with the exemplary question in the RFP, we will explore three groups of key stakeholders' perceptions (students, teachers, IB coordinators, principals, parents) of changes that are attributed to IB programmes. We will focus primarily on these three groups because they are best situated in evaluating the changes occurring in their school in their everyday context. Regarding students' perception of changes in school, we will address the following question:

- RQ4. What changes do students attribute to the implementation of IB programmes in terms of their learning experiences (e.g., IB classes and school life) and outcomes (e.g., competences, wellbeing)?

To explore teachers' perception of changes in school, we will examine the following question (see also Figure 1-1):

- RQ5. What changes do teachers attribute to the implementation of IB programmes in terms of their pedagogical practices (instruction, curriculum development, assessment) (see Quadrant I), work satisfaction and work-related stress (Quadrant II), school climate and culture (Quadrant III), and professional learning community (Quadrant IV)?



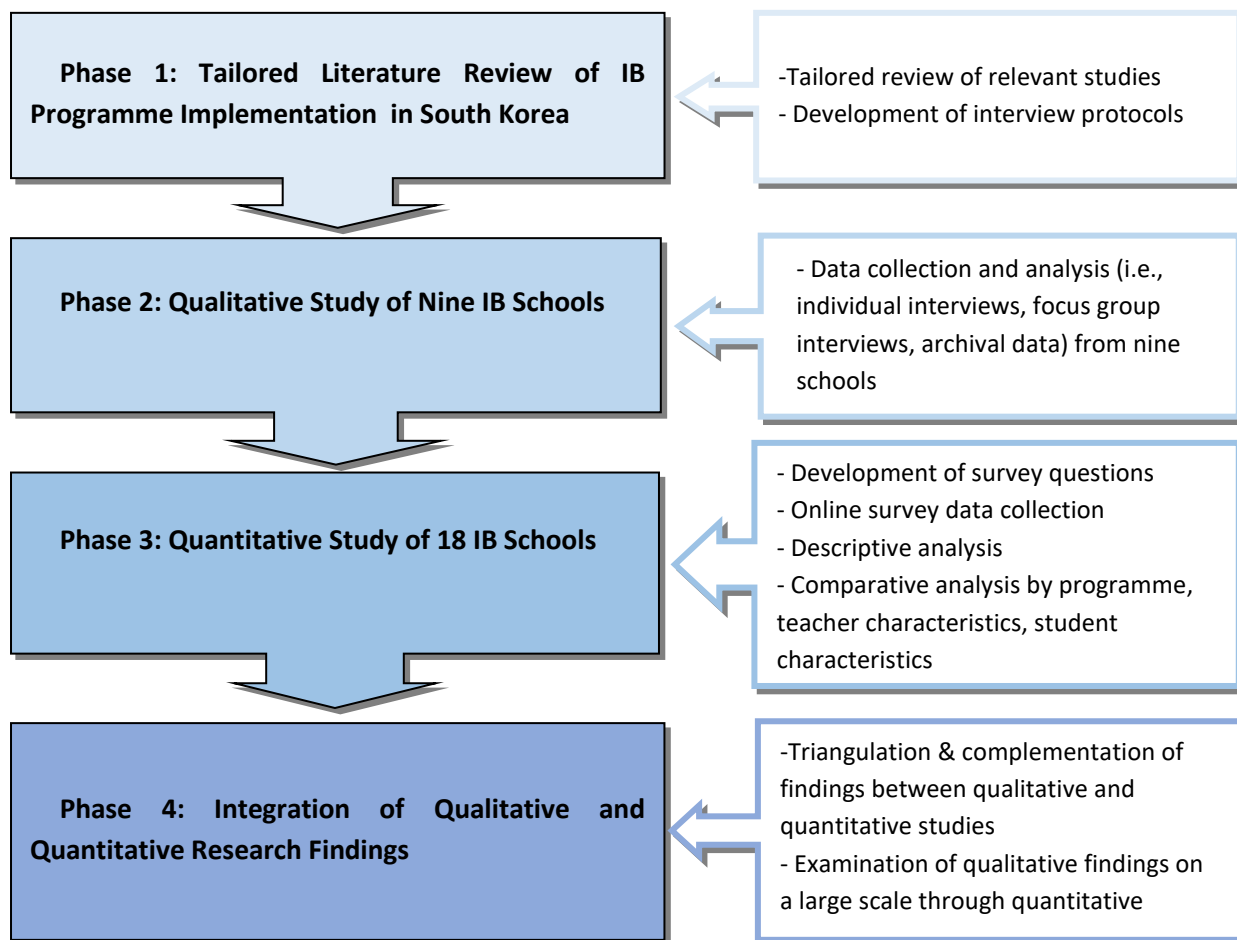
## **Figure 1-1. Changes Teachers Attributed to IB Programme Implementation**

Finally, we explore school leaders' perception of changes in school. School leaders include principals, vice principals, and IB programme coordinators. We will examine the following question:

- RQ6. What changes do school leaders attribute to the implementation of IB programmes in terms of students' learning outcomes, teachers' practices, and school climate and culture?

### **1.3. Research Design and Methods**

We proposed a mixed-methods study (i.e., sequential exploratory approach) that consists of a four-phase research design with multiple analytical strategies (Cresswell, 2014), as presented in Figure 1-2. The four phases are analytically-separate but conceptually-integrated for the purpose of exploring the key stakeholders' perceptions of IB programme implementation in the 18 schools. The project was approved by the project leader's university, and the related data was gathered based on the participants' consent. For the interviews, we collected consent forms from each participant on-site, and for the surveys, consent was obtained online.



**Figure 1-2. Research Phases and Approaches**

**Tailored Literature Review of IB Programme Implementation in South Korea (Phase 1):**

We conducted a tailored review to document research knowledge about benefits, opportunities, changes, effects, and challenges (and identified solutions) in the process of IB programme implementation in the context of South Korea. We identified 36 empirical studies. and to capture a comprehensive picture of IB programme implementation in Korea, the studies reviewed included peer-reviewed articles, chapters, dissertations, and commissioned research project reports by local education research institutes. Details of the review process and key findings are presented in Chapter 2.

**Qualitative Study of Nine IB Schools (Phase 2):**

We selected three schools each for the DP, MYP, and PYP. To ensure the maximum variation of relevant school demographics in our sampling, we considered the following publicly available school demographic information: Language of instruction, Province (i.e., Daegu or Jeju), School size, Public/Private, Co-Educational, School SES, Full (entire grade) or partial (selected classes) implementation of IB programmes, and other important contexts in South Korea (See Appendices 1-1 & 1-2). Considering all these criteria for our sampling, we selected nine schools and successfully achieved data collection from all of the nine schools proposed in our original proposal. In total, we conducted 80 interviews, including both individual interviews and focus group interviews (FGIs), with 181 school members from the nine schools. On average, each interview lasted 53 minutes. In addition, after each interview, we

wrote analytic memos based on our impressions and reflections in order to capture more nuanced information. In-house materials (e.g., IB promotional brochure for parents and visitors, and school curriculum documents) and photos taken in schools were also gathered to triangulate interview data. Details of the qualitative study's procedure and key findings are presented in Chapter 3.

**Quantitative Study of 18 IB Schools (Phase 3):** We developed survey questions drawn from the comprehensive analysis of our qualitative research findings (i.e., Phase Two). We also utilized existing validated questionnaires. Specifically, to measure the perceptions of teachers, we utilized the Teaching and Learning International Survey (TALIS) 2018 questionnaire. Regarding teachers' perceptions of benefits, opportunities, and challenges of IB programme implementation, we used IB specific questions developed and validated by Lee et al.'s (2022a) comparative study of IB teachers in eight societies. For students' perceptions of learning experiences and outcomes, we used Walker et al.'s (2016) IB Learner Profile study in Asia and Hong et al.'s (2023) large survey study on whole-person development recently conducted in South Korea. The survey data was collected online from June to July 2024. We targeted all 18 IB schools that were authorized between 2021 and 2022. We successfully collected survey data from 2,875 IB students and 320 IB teachers across all the 18 schools. Details of the quantitative study's procedure and key findings are presented in Chapter 4.

**Integration of Qualitative and Quantitative Research Findings (Phase 4):** Based on our investigations conducted sequentially from Phase 2 to Phase 3, we triangulated and complemented key findings from both qualitative and quantitative analyses. We presented a range of insightful voices and views from the interview data, many of which were reaffirmed on a larger scale through our survey data. A summary of the key findings and their implications is provided in Chapter 5.

## 2. LITERATURE REVIEW OF IB PROGRAMME IMPLEMENTATION IN SOUTH KOREA

### 2.1. Introduction

We conducted a tailored review to document research knowledge about benefits, opportunities, changes, effects, and challenges (and identified solutions) in the process of IB programme implementations in the context of South Korea. We identified 36 empirical studies with a focus on IB programme implementation in South Korea. To capture a fuller picture of IB programme implementation in Korea, the studies reviewed included peer-reviewed articles, chapters, dissertations, and commissioned research project reports by local education research institutes. We utilized DBPIA, the largest academic database of research literature published in South Korea. The following search terms and their combinations were used: IB, International Baccalaureate, PYP (Primary Years Programme), MYP (Middle Years Programme), DP (Diploma Programme), implementation, introduction, benefits, challenges, student outcomes, student experiences, teacher practices, school changes, perception, and/or South Korea.

Before going further, we wish to note several limitations in existing literature, despite their contribution. First, most studies were based on small-scale qualitative research (individual interviews or FGI). Except a few commissioned studies from local education authorities, most studies involved fewer than five participants or lacked significant and substantial quotations from interview data, making us question the quality of the qualitative data. There were a few survey studies as a part of mixed-methods research. The scale of the survey is limited in providing generalizable findings, and the validity of survey instruments was not tested through demonstrating rigorous psychometric properties. As such, they provided descriptive analysis rather than analytical through using advanced statistical methods. Despite these methodological issues, we wish to note that some of the studies are worth noting in this tailored literature review, given the relevance of their findings to our research. The summary of the key findings is presented in the following section. We intended to present the findings in alignment with our research questions where possible. A full literature review, including a supplementary review in response to our research's findings, will be included in the final report.

### 2.2. Summary of Key Findings on PYP

We identified seven empirical studies with a focus on PYP implementation in South Korea. The seven studies are presented in Table 2-1 below.

**Table 2-1. Previous Studies on PYP in Korea**

Author (Year)	Title	Research Type	Research Method
Baek et al. (2008)	A comparative study of Korean elementary school curriculum with IBO's PYP	Academic Paper	Literature Review
Choi (2022)	The Perception of Learning Community Members on IB-PYP Operation in Public Schools	Academic Paper	Individual Interview
Han et al. (2021)	Exploring the Applicability of IB PYP for Future-Oriented School Curriculum Development	Academic Paper	Literature Review
Hong (2021)	Exploring ways to change school curriculum through IB PYP case studies	Academic Paper	Literature Review + Individual Interview
Kim (2017)	Designing, creating and instituting a Korean language arts curriculum for the IB school programme: Focusing on a local international school	Academic Paper	Literature Review
Lim (2022a)	An Analysis of the Curriculum Implementation of IB PYP Schools: Based on the Experience of IB School Teachers	Academic Paper	Individual Interview + Participant Observation
Lim (2022b)	Types of IB introduction stages based on the analysis of IB PYP schools' Programme of Inquiry	Academic Paper	Literature Review

Lim's (2022b) study captures a picture of PYP implementation by categorizing the stages of PYP implementation. In this study, criteria for reviewing the stages of PYP implementation were established by referring to the standards guided by the IBO. These criteria for reviewing were then utilized to analyze whether the PYP Units of Inquiry (UOI) and Programme of Inquiry (POI) implemented in the schools met the criteria for reviewing appropriately. It was noted that a total of 15 criteria for reviewing were selected, utilizing guidelines for POI development, PYP guidelines documents, Approaches to Learning (ATL), and the IB Learner Profile. In this study, three elementary schools in Daegu, which were candidates for the PYP in 2020, were selected. The researcher categorized the stages of IB PYP implementation into introductory, developmental, and advanced stages based on the characteristics of the POI and UOI implementation. According to the study, two schools were categorized at the developmental stage and one school at the advanced stage.<sup>2</sup>

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<sup>2</sup> The introductory stage refers to cases where most of the review criteria are not met, indicating "an interest in IB education and the PYP, but with a low understanding of the philosophy of IB education, the PYP framework, core elements, and concept-based inquiry" (p. 424). The developmental stage describes schools with "a culture of collaboration and reflection, a basic understanding of the philosophy of IB education and the PYP framework, core elements, and concept-based inquiry, and are developing POIs and UOIs while integrating the PYP framework with the national curriculum, although improvements are needed in member understanding and the balance of POIs" (p. 424). The advanced stage denotes schools that meet all review criteria, characterized by "a culture of collaboration and reflection, a good understanding of the philosophy of IB education and the PYP framework, core elements, and concept-based

Several studies documented the potential of the PYP to improve elementary education curriculum (Baek, et al., 2008; Choi, 2022; Han, et al., 2021; Hong, 2021). Specifically, Baek et al. (2008) compared the revised 2007 national curriculum with the PYP framework in terms of educational philosophy, goals, subject curriculum, assessment, and extracurricular features. Following the comparison, the authors argued that the PYP could provide more global features and contexts for the national curriculum as South Korea's elementary education curriculum focused more on the nation's development, and roles as social members within the nation context. In addition, they viewed the PYP as providing practical ways of strengthening the link between kindergarten and elementary school curricula for the national curriculum. Similarly, Kim (2017) analyzed cases of integration between the national curriculum and the PYP framework within the context of Korean international schools. First, Kim diagnosed the national curriculum as based on excessively compartmentalized subject-focused curriculum design. The author therefore suggested that the transdisciplinary characteristics of the PYP can contribute to addressing the problem. The author further highlighted that the six transdisciplinary themes of the PYP, which are rooted in students' real-life experiences, can promote deeper thinking and opportunities for practical application, particularly for fostering global citizenship. Han et al.'s (2021) research resonates with the positive aspects of the PYP, noted above. The authors characterized the PYP as the curriculum framework for international mindedness, aiming to foster knowledgeable and caring individuals capable of contributing to the realization of global peace based on understanding and respect for different cultures. In this regard, the authors posited that the PYP has several key elements of future-oriented education. While useful, given the nature of the documentary study, the authors' argument needs to be proven or tested in a real school context. Choi's (2022) study, based on interviews with principals, coordinators, and teachers from three certified and candidate schools in Daegu, reports that they unanimously believe the PYP holds sufficient value to be introduced into public education and that IB could be a "hope for educational innovation" according to their perspectives. They collectively recognize the need for innovation in Korean school education and see the advantages of the PYP, such as learner-centered inquiry education, fostering individuals with international competence, and promoting a culture of collaboration and communication within the educational community, as capable of fulfilling this role.

While the literature above illuminates the bright side of the PYP in the context of South Korea, studies also capture certain challenging pictures of PYP implementation. Hong's (2021) study offers critical and constructive implications for PYP implementation. The author conducted a case study of four IB candidate or certified schools in Daegu. While this study also provides a positive aspect of PYP implementation such as strong alignment between curriculum goals, planning, execution, and assessment, considering educational goals, it also pointed out some issues in PYP implementation.<sup>3</sup> For example, the broad consensus and shared understanding of the PYP among teachers was significantly important for PYP implementation. However, in the case that there was a lack of broad consensus and shared understanding of why and how PYP should be implemented, some coordinators were solely responsible for curriculum planning and assessment tasks. In this

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inquiry, developing and operating balanced POIs that integrate the PYP framework with the national curriculum, and advancing the unique POIs and UOIs of the school" (p. 424).

<sup>3</sup> Given the criticism of the lack of consistency and coherence in the curriculum, teaching methods, and assessment/evaluation in the Korean elementary curriculum (e.g., Jung & Kang, 2015), the solid alignment of PYP implementation was highly regarded in the study.

regard, Hong (2021) highlighted the need for teachers' shared understanding of new terms and meanings embedded in the PYP through an analysis of the curriculum planning and operation of the schools. Particularly, the author pointed out difficulties encountered in the initial application of POI and UOI in the schools due to differences in the usage of terms, despite similar expressions of "key concepts" in the revised 2015 Korean curriculum. While efforts were made to address this through continuous training and discussions, challenges persisted, with significant time and effort required for consensus on POI and UOI design due to differences in teachers' understanding of PYP and interpretations of the curriculum. Difficulty in securing sufficient time for collaboration was also noted due to teachers' scattered non-teaching duties. Finally, since the 2015 national curriculum requires similar tasks as IB's academic integrity policy and the academic performance management regulations, the study reports that teachers viewed such tasks as leading to double documentation and adding to teachers' workload burden. Finally, the study identified problems in the personnel transfer policy in public schools, which may pose challenges to the sustained operation of IB PYP from a medium- and long-term perspective. Even if teachers come to acquire certain understanding and expertise in operating PYP as time goes by, according to the personnel transfer policy in Korean public schools, teachers must transfer to another school every four years, which could be an obstacle of the continuity of quality PYP implementation.

Choi (2022) emphasized similar issues. Concerning the workload burden on teachers, she noted that restructuring the national curriculum is necessary to apply the PYP to the Korean national curriculum. This requires a significant amount of time and effort in discussions and research during this process among teachers. Furthermore, she pointed out that "fitting the national curriculum into the IB framework" (p. 15) has led to an increase in the volume of lessons, which not only burdens teachers but also affects the amount of learning students receive. Additionally, she highlighted the challenges posed by mapping and aligning the national curriculum's achievement standards with the content of PYP's transdisciplinary themes. Overly detailed achievement standards that do not align well with the transdisciplinary themes of the PYP can limit the effectiveness of restructuring. For instance, standards focused on knowledge or skills may be difficult to incorporate into UOIs or may result in an increase in the volume of learning and a shortage of time if all standards are to be addressed. Teachers also perceived obstacles in the organization and operation of the PYP for deep student learning, such as 1) the allocation and organization of subject hours, 2) the presentation of content structure by grade level, and 3) the prohibition of prerequisite learning by laws in the national curriculum. Furthermore, the rigidity of the National Education Information System (NEIS) was strongly criticized by teachers because discrepancies exist between IB evaluation practice/process and evaluation system based on the curriculum listed in NEIS. Lastly, the increased workload due to the need for dual evaluations for the PYP and the national curriculum, respectively, were also highlighted.

Choi (2022) also reports principals' perceptions of IB programme implementation in the case schools. The principals perceived the assurance of teaching quality under the four-year rotational teacher employment system as a challenging task. This is because there are difficulties in forming a consensus about IB programme implementation among newly transferred teachers and persuading and motivating those with reservations about IB programmes. In the study, students also indicated several challenges in their experience of IB programme implementation. The challenges were to improve their inquiry skills, thinking skills, communication skills, and social



skills. Regarding inquiry skills, students reported difficulties in conducting research, finding information, and effectively searching for information due to activities requiring direct investigation of data. In terms of thinking skills, students expressed pressure in generating their own questions and ideas. Communication skills presented challenges in expressing one's thoughts through writing or presentations. Regarding social skills, difficulties arose from the collaborative process with peer students. While acknowledging the benefits of group collaboration in problem-solving, such as mutual assistance and teamwork, difficulties arose in resolving conflicts among group members when decision-making was not coordinated, or responsibilities were not fulfilled. However, it should be noted that these challenges in forming skills occurred in schools mostly at the initial stage of IB programme implementation.

Lim (2022a) analyzed the issues and challenges experienced by teachers designing and implementing the PYP within the context of national curriculum from public elementary schools. First, similar to the previous studies noted above, Lim's study reported difficulties in designing integrated inquiry units and inquiry programmes aligned with the Korean national curriculum achievement standards. Specifically, it was noted that there was significant pressure in addressing achievement standards not covered within the UOI separately. This was attributed to the larger number of subjects in the Korean national curriculum compared to the six themes of PYP, as well as the detailed nature of the content elements contained within the achievement standards, which posed challenges for flexible integration with the PYP framework. Second, designing units focused on "central ideas" or "key concepts" as emphasized by IB was unfamiliar to many teachers, leading to some confusion initially. The author pointed out that developing expertise and implementation capabilities in understanding how to design units with "central ideas" initially demanded considerable time and efforts from teachers' regular work. Thirdly, PYP school teachers expressed concerns that implementing IB-style lessons might hinder the intensive focus on foundational knowledge, literacy, and numeracy. They highlighted the difficulty of balancing student-centered, inquiry-based instruction with the need for students to acquire fundamental skills within the limited class time available. Fourthly, teachers were concerned about fully embracing IB programmes into the K-12 education system, as long as the national university entrance exam remains unchanged. Finally, teachers emphasized the necessity of transitioning the perceptions and perspectives of school members towards a future-oriented mindset to effectively implement and operate IB programmes. Merely introducing PYP without future-oriented perspectives could lead to superficial or tokenistic implementation. While this appears to be a valid point, we wish to note that there were no substantial discussions about a future-oriented mindset itself in Lim's study. Furthermore, the author underscored the need for collective collaboration, research, preparation, and reflection among school members for the successful adoption and operation of IB programmes in that teachers require sufficient time and capacity to engage in these activities. Participating teachers perceived that, currently, the freedom and autonomy of teachers in curriculum operation within the school are still constrained, which they identified as a significant challenge in implementing IB programmes.

Regarding the changes attributed to IB programme implementation, Choi (2022) reported changes in students' learning attitudes such as improved learning attitudes in terms of student agency. Here is a case of student agency explained in the research: During the process of exploring and solving inquiry questions in UOI learning, students became inadvertently immersed, finding the lessons enjoyable. They responded that they felt more motivated to engage

when given the autonomy to choose than when activities were teacher-directed. Additionally, through IB classes, students developed increased curiosity and interest in surrounding phenomena, leading them to view various phenomena from diverse perspectives. Teachers and parents also noted an improvement in students' willingness to participate voluntarily compared to before. They observed a shift from passive to active engagement in students and noted a heightened sense of achievement and self-esteem (Choi, 2022, p. 12).

The PYP students in the study also expressed the ability to apply the learned content to other subject areas or extended topic studies. Furthermore, they noted that the final stage of IB PYP exhibition enabled them to apply the learned content to real-life situations. They highlighted how skills learned through activities could be effectively utilized in other learning contexts. Additionally, they believed that the development of learner profiles through inquiry and reflection contributed to their personal growth.

Regarding the changes in teachers' practices, Choi (2022) found that most participating teachers reported that implementing IB PYP had become essential in their daily routines, particularly through collaborative teaching and sharing among teachers of the same grade level. Frequent discussions and collaborations among teachers occurred regularly to share effective teaching methods. Through this process, teachers discovered ideas they had not previously considered and applied them to improve the direction and quality of teaching. Accumulating such experiences fostered a sense of pride and achievement among teachers, motivating them to strive for better teaching practices. They also reported that by sharing and implementing each other's ideas in teaching, they felt that the overall quality of teaching among the grade level improved. Notably, teachers also reported that professional development workshops focusing on classroom practices in relation to IB programmes were perceived as instrumental in enhancing their teaching professionalism. They found IB teacher training to be practical and applicable, rather than abstract and theoretical, enabling them to deepen their understanding of IB PYP. Particularly, they expressed that these workshops provided opportunities to develop new perspectives on teaching. Reflecting on student-centered approaches, they felt they could shift away from teacher-centered instruction, fostering a learner-centered classroom environment. However, they noted that language barriers still posed challenges in IBO training.<sup>4</sup> They expressed high quality in-school workshops tailored to individual schools are much needed. Finally, the teachers involved in the study reported a shift in school culture, particularly highlighting the emergence of a collaborative and communicative environment conducive to student growth. They identified a move away from a rigid, top-down culture of instruction and obedience towards a more horizontal culture of collaboration and communication, which became more prevalent as collaborative bodies formed for UOI lessons. Moreover, they noted a reduction in unnecessary tasks and events, attributing this improvement to the dense and frequent grade-level teaching and learning research activities.

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<sup>4</sup> The IB training is mostly conducted in English, while Korean teachers are expected to teach and assess the PYP in Korean. Consequently, there is often no requirement for them to be proficient English speakers. This language barrier can pose challenges during training, which is evidenced in our qualitative study. There appears to be a need for more workshop/training leaders who are native Korean speakers and possess the necessary qualifications.

Choi (2022) also reported a few findings regarding principals' perception. The teachers perceived a change in leadership focus, which shifted from superficial school development to rational and actual improvements aimed at fostering learner-centered curriculum. The teachers described changes in school leadership positively as the principals listened to and respected the voices of school members, facilitated discussions, made decisions through communication, and provided the necessary financial and administrative support for creating classroom and inquiry learning environments since the implementation of the IB programme.

Previous studies have contributed to providing an overview of the PYP and its advantages when applied to the Korean curriculum. However, there have been limitations in illuminating what changes have been made when the PYP is introduced and implemented in the Korean context on a larger scale, given that a vast majority of studies were done in a single school with a few selected staff members or students. Furthermore, while there has been relatively rich discussion from the teachers' perspective regarding implementation cases and subsequent changes, there have been limitations in understanding how principals, students, and parents perceive the changes brought about by the PYP. Additionally, analysis has mainly been conducted from an internal school perspective, making it difficult to grasp aspects that could be addressed by educational authorities, such as local educational authorities.

### 2.3. Summary of Key Findings on MYP

We reviewed 11 studies with a focus on MYP implementation in South Korea. Overall, the studies focused on analyzing the changes in schools and members implementing the MYP, as well as the characteristics of the MYP framework. Furthermore, some studies aimed at deriving practical implications for the implementation of the national curriculum in Korea. The 11 studies are presented in Table 2-2 below.

**Table 2-2. Previous Studies on MYP in Korea**

Author (Year)	Title	Research Type	Research Method
Baek, J., & Hong, H. (2022).	A study on the instruction development in middle school science applying the IB MYP framework: Focused on the 'wave' unit	Academic Paper	Literature Review +Interview +Discussion
Byeon, H., Baek J., Lee, H., Kim, S., & Kim, M. (2023).	A Study on the Operation of Middle School Curriculum, Instruction, and Assessment Focused on Future Competencies Using the IB MYP	Research Report	Literature Review +Interview +Content Validity
Kang, H. (2020).	Exploration of the Meaning and Characteristics of Key Concepts in the International Baccalaureate.	Academic Paper	Literature Review
Kim, C., Hong, H., & Lee, H. (2021).	Exploration of Growth Assessment and Evaluation in Middle School Education through IB MYP Assessment and Evaluation System.	Academic Paper	Literature Review
Kim, W., & Kang, H. (2021).	A Study on Democratic Citizenship Education in Schools based on the Ideas of IB MYP.	Academic Paper	Literature Review
Kwon, Y. (2021).	Local Education Autonomy and Introduction of International Baccalaureate.	Academic Paper	Literature Review
Na, H. (2021).	A Case Study on the Application of International Baccalaureate MYP Programme to Kyungpook	Academic Paper	Literature Review + Survey

		National University Middle School in Korea.		
Rim, H., & Kim, B. (2022).		Analysis of proof content in Korea, Japan, and IB middle school mathematics curriculum and textbooks.	Academic Paper	Literature Review
Shin, K. (2023a).		A qualitative case study of the teacher experience at the IB MYP World School.	Academic Paper	FGI+Interview +Written interview +Participation
Shin, K. (2023b).		IB MYP school educational implementation aspects and challenges: Focusing on teachers IB programme application experience.	Academic Paper	FGI+Visiting Classes and Teachers' Councils
Yu, J., Kim, D., Jung, E., Jeon, H., Lee, Y., & Jung, M. (2019).		A study on the development of student-centered middle school curriculum.	Research Report	Literature Review +Online Interview +Delphi +FGI

Na (2021) conducted a case study of an MYP school in Daegu. At the end of 2020, it became an IB World School, implementing the MYP across all grades starting March 2021. Initially, the school focused on integrating the philosophy, objectives, and the IB learner profile into its operations to ensure the successful execution of the programme. This involved a transformative effort to improve the school's management and culture, ensuring that teachers received guaranteed class preparation time during work hours at school, and providing full support for professional development through regular workshops or professional learning communities (PLCs). Additionally, the school encouraged the sharing of MYP unit planning and execution through opening classes and developed a systematic internal system to enhance teachers' professional capacity in assessment. Students' community project as a part of the MYP was also implemented to enable students to actively develop their competencies. Also, the MYP community project was linked with the Korea's Free Semester System and was focused on connecting local community issues, aligned with the learning content in MYP. Despite the challenges posed by COVID-19 in 2021, these efforts were maintained through the dedication and effort of the school and educational support offices. Byeon et al. (2023) presented similar findings. She conducted qualitative research through visits to MYP schools in Daegu and Jeju. According to the study, the schools executed key elements of the MYP as prescribed by the IB, including subject groups, unit plans, and overall assessments. This execution was supported by the full backing of the leadership team (i.e., PLT), the formation of a cooperative community among teachers, and meetings dedicated to curriculum management.

Researchers in extant studies (e.g., Kim & Kang, 2021; Kim et al., 2021) have criticized the 2015 national curriculum for not being "practically" implemented in schools. Within this context, they have sought ways to effectively apply it based on insights from the MYP. Notably, they appreciated the MYP's emphasis on concept-driven education and interdisciplinary integrated subject teaching through its teaching and learning strategies. Specifically, Kang (2020) highlighted the MYP to address the lack of actual implementation of "core concepts" outlined in the 2015 national curriculum. Kang anticipated that defining core concepts for each subject and organically integrating them could facilitate interdisciplinary integrated education. In this regard, Kang reported that the systematic organization and detailed explanation of core concepts mentioned in the MYP guide provided Korean teachers with a model for implementing the 2015 national

curriculum in schools. Yu et al. (2019) suggested the need to reference the MYP for practical teaching methods in schools, utilizing big ideas or core concepts derived from global contexts. This study viewed the MYP as teaching concrete learning skills rather than abstract competencies, helping students to achieve the 2015 national curriculum goals through class learning.

Research also indicated the necessity to reflect MYP characteristics in specific subjects. Rim and Kim (2022) reported the need for approaches in mathematics in the national curriculum that utilize core concepts for mathematical proofs, suitable for student levels and reducing burden. They suggested that the MYP could be instrumental for that purpose. Baek and Hong (2022) criticized the fragmented and specialized knowledge-based science classes, advocating for concept-based learning to ensure a thorough understanding of core knowledge, with students independently learning additional information as needed. They viewed the MYP as a solution for this. Kim and Kang (2021) noted the lack of concrete connections and implementation strategies in Korean school civic education regarding core competencies, concepts, and real-life application, suggesting the incorporation of MYP curriculum elements for practical education execution.

Existing studies also sought to examine the MYP's assessment system. In Korea, exams to assess cognitive ability in the form of standardized tests are prevalent even at the middle school level. The MYP's assessment system was considered a model for this revision. Kim et al. (2021) documented that while the Korean middle school curriculum proposes process-oriented evaluation, it fails to establish a system for constructing knowledge through formative and summative assessments comprehensively, often reduced into summative assessments during the end of semester. In a similar vein, Baek and Hong (2022) emphasized the need to revise Korean middle school curriculum assessment by adopting MYP's integrity between teaching and assessment, continuous formative assessments providing continuous feedback to learners, and summative assessments of knowledge and skills.

Based on interviews with IB teachers, Shin (2023b) reported the advantages of the MYP as follows. First, the programme allows for the redesign and operation of the curriculum centered around core concepts, which expands teachers' autonomy in teaching. Additionally, the systematic and thorough process of evaluation within the IB MYP was regarded as a significant advantage. The IB's system and quality management framework, which structurally facilitate collaboration to operate such a curriculum, were also identified as major strengths. From an instructional perspective, the emphasis on questioning, inquiry, and discussion to enhance students' self-directed learning was reported as another distinctive advantage of the MYP, compared to the national curriculum.

Aside from the positive aspects reported by the existing literature, a few studies pointed out some concerning features. Notably, the concerning features are not about IB programmes, including the MYP, in themselves, but about problems when implementing them in the Korean context. Kwon (2021) argues that there is a concern that the significance of IB programmes might be appropriated by discourses on university entrance examination outcomes rather than the IB's educational philosophy. In addition, there is on-going skepticism regarding whether the introduction of the IB through financial support from local education authorities can be a viable strategy for the continuous development of local education autonomy system. This skepticism is

attributed to the rapid deployment and expansion of the IB, along with inadequate consideration for issues of educational equity, which is an important societal value in Korean society.

In terms of changes attributed to the MYP implementation, Na (2021) analyzed the changes in perceptions and the learning environment before and after the application of the IB programme at an MYP school in Daegu. Overall, the survey data indicate positive perceptions in terms of students' improved learning outcomes and parents' school satisfaction. Byeon et al. (2023) reported that in schools implementing the MYP in Jeju and Daegu, students perceived increased autonomy in learning and education, with positive responses leading to a growing preference for MYP schools. Byeon et al. (2023) further suggested that the most significant changes due to the IB MYP were teachers' self-reported growth in their lesson design capability as they had to redesign their classes to fit with the MYP framework. Furthermore, Byeon et al. (2023) reported that teachers were actively involved in collaborative community activities (e.g., PLC) for assessment methods and standardization of curriculum operation, recognizing an enhancement in their teaching and educational expertise. This was one of the major changes noted from the study.

Unlike the studies noted above, Shin (2023b) reported a negative change attributed to the introduction of the MYP. Most teachers in her study reported that the most significant workload arises from managing dual assessments - those required by the IB and the national curriculum. As such, teachers face the burden of performing dual educational and administrative tasks. Her study also revealed changes in teachers' work and practice among the teachers. We wish to note that such changes appear to have ambivalent values (i.e., co-existence of positive and negative sides). First, the restructuring of the national curriculum through the IB programme led to enhanced curriculum literacy for teachers. Second, despite initial challenges and difficulties, teachers became more thoughtful about methods that could be applied in actual classroom instruction and facilitate student growth after adapting to the programme. However, there was still anxiety among teachers because there are grey areas about whether the requirements from the IB were being met, because they were not able to check whether they were on the right track. The anxiety stemming from such grey areas seemed to be alleviated through professional learning communities. Nonetheless, most teachers felt that their professional expertise had improved through various IB teacher training programmes.

Existing literature on the MYP in Korea highlights the programme's educational framework and assessment system benefits, focusing on teacher perspectives and the positive changes within schools. However, this body of research lacks depth in exploring the perceptions of the most impacted stakeholders: students and parents. Much is needed for in-depth investigations into students' experiences and parents' evolving perceptions regarding educational pathways through MYP implementation. This gap signifies the importance of conducting comprehensive research that captures the nuanced experiences of all stakeholders and the operational challenges of the MYP, to provide a balanced and in-depth understanding of its implementation and impact within the Korean educational context.

#### **2.4. Summary of Key Findings on DP**

We identified 18 studies that focused on the DP in Korea. Existing studies on the DP in Korea have predominantly focused on subjects, assessments, and other aspects of DP, as well as presenting

domestic IB schools and international cases to identify implications for domestic implementation. Of the 18 studies, we reviewed 16 studies that are relevant to our research themes, which are presented below.

**Table 2-3. Previous Studies on DP in Korea**

Author (Year)	Title	Research Type	Research Method
Eom et al. (2022)	Gyeonggido Office of Education IB Programme Introduction Direction (Current issue report 2022-16)	Research Report	Literature Review + Individual Interview + FGI
Yim (2018)	Analysis of the International Baccalaureate Diploma Programme (IBDP)	Academic Paper	Literature Review
Lim (2015)	Current State and Prospect of the IB programme as a Standard Model of the International Education	Academic Paper	Literature Review
Chung & Kwon (2019)	IB DP Core Subjects and their Local Relations: An Examination of the Jeju International School Practice	Academic Paper	Literature Review
Jeong (2013)	Studies on the adaptation of the International Baccalaureate curriculum in local schools	Academic Paper	Literature Review
Ha et al. (2012)	The present status and tasks of the IBDP (International Baccalaureate Diploma Programme) implementation in Korean high schools	Academic Paper	Literature Review
Lee et al. (2017)	Study on the Application of IB Curriculum and Evaluation System in Jeju Education	Research Report	Literature Review + Survey
Lim (2023)	Current Status and Challenges of the Introduction of International Baccalaureate (IB) in Korea	Research Report	Literature Review
Park (2014)	A Study on the IBDP in International Schools in Korea	Master's Thesis	Survey + Individual Interview
Park et al. (2013)	Planning and Practice of International Baccalaureate Diploma Programme and its Implications for Foreign Language High School Curriculum in South Korea	Academic Paper	Individual Interview
Park (2013)	A Study on Introduction and Practice of IBDP of Korean Academic High School	Doctoral Dissertation	Literature Review + Survey + Individual Interview
Kang et al. (2006)	A comparative study of AP and IB: Curricula that work for advanced high school students	Academic Paper	Literature Review
Kang et al. (2007)	Instituting IB Diploma Programme in accordance with Academic Career Plan at the University-bound High Schools	Academic Paper	Literature Review
Kim (2016)	Examining the Utilization of the AP and the IBDP for Korean university admission	Academic Paper	Literature Review + FGI

Kim (2018)	A Study on the Implication of IBDP Student Assessment for High School Academic Achievement Test in Korea	Academic Paper	Literature Review + FGI
Kim (2018)	A Critical Analysis on the Introduction of International Baccalaureate Diploma Programme in Public Schools in the Republic of Korea	Academic Paper	Literature Review
Han & Park (2009)	Study on the International Baccalaureate and Victorian Certificate of Education for the Improvement of Korean University Entrance Examination	Academic Paper	Literature Review
Ryu & Kim (2018)	Exploring the prerequisites for the Introduction of International Baccalaureate Diploma Programme in the Public education	Academic Paper	Literature Review

Previous studies on the DP in Korea can be broadly categorized into three areas. First, there were studies that explored the feasibility of the DP in conjunction with the national education curriculum and the national university entrance exam in Korea. Second, there were studies on how the DP is implemented, along with their implications for its implementation in Korea. Third, some studies examined the characteristics of the DP from the perspective of student assessment and analyzed its compatibility with domestic university admissions.

Among studies that explored the feasibility of implementing IB within the national education curriculum system and the national university entrance exam, Kang et al. (2006) provided a comparative overview between Advanced Placement (AP) and IB examples so as to discuss the applicability to the Korean system. Kang et al. (2006) viewed the DP as a suitable option for high achieving high school students in Korea. The study from the Korea Education Development Institute (2013) resonates with the finding, indicating that the DP would be suitable for a gifted education curriculum for outstanding high school students. Note that these two studies were done before the IB introduction to the local education system in Korea. Therefore, the two studies' view appears to be outdated from the current policy discussion of the DP introduction.

Kim (2018) critically analyzed the validity of the DP in Korea's public education system from educational policy perspectives. Analyzing the validity in areas such as curriculum, educational assessment, teacher education, and educational governance, the study posited that the introduction of the DP into public education faces multiple challenges in terms of operational costs and prerequisites for utilizing IB Diploma scores for admissions. In terms of policy perspectives, Eom et al. (2022) and Lee et al. (2017) conducted research studies commissioned from local education offices of Gyeonggi and Jeju, respectively. Their studies touched upon sensitive policy issues in relation to the DP introduction to local education systems such as educational inequality and compatibility of the national university entrance exam. For example, Eom et al. (2022) reported that the DP school in Jeju shows that IB introduction to a school in a socio-economically marginalized area, experiencing population decline, could potentially address equity issues, as new residents have immigrated to the area to send their children to the school, because the school offers the DP.

The preceding studies also explored implications of DP education from the cases of international schools in the Jeju area or Gyeonggi Foreign Languages High School, which is the first local private school adopting the DP in Korea. In the case of Gyeonggi Foreign Languages High School, Ha et al.



(2012) emphasized the necessity of school members' agreement and shared understanding for the DP implementation. In addition, the researchers viewed appropriate tuition fee setting and support from the local education office as necessary conditions for the DP implementation. Park et al. (2013) compared the national curriculum and the DP using the case of Gyeonggi Foreign Languages High School. The study suggested the need for reducing administrative burdens related to DP operation, enhancing autonomy at the site, ensuring the quality of classes, and establishing separate organizations and budgets.

Based on her research, Lim (2015) argued that it is essential to establish a central organization for IB dissemination and research. She went on to argue that introducing IB teacher training into domestic teacher training programmes is crucial. This suggestion was made based on a comparison between the IB status in Korea and that in Japan. Jeong (2013) conducted a comparative study of the DP in the United States, Canada, and Korea (Gyeonggi Foreign Languages High School), focusing on how local schools are implementing the DP curriculum. The study reported that in the case of Gyeonggi Foreign Language High School in Korea, there were concerns about the workload of the students, who are not native English speakers, despite the already extensive nature of Korea's university entrance-focused high school curriculum. This was raised considering the DP curriculum's emphasis on holistic education and experiential learning.<sup>5</sup>

Several research studies analyzed the characteristics of IB from the perspective of assessment and its linkage with domestic university admissions. For example, Kim (2016) advocated for the significant utilization of the DP as an admission criterion in domestic universities, noting that major universities in the UK and the US are currently doing this. To achieve this, Kim (2016) emphasized it is critical to develop a student selection model that allows the utilization of IB scores by universities and granting IB score submission noted in student transcripts. Subsequently, in a follow-up study Kim (2018) examined the characteristics of student assessment in the DP based on assessment methods, assessment items, assessment records, and adjustment of assessment results. As such, Kim (2018) further discussed the implications of IB DP in the context of introducing essay-type questions in Korea.

Eom et al. (2022) conducted interviews with one school inspector from Daegu and Jeju each, as well as three teachers from Daegu, to analyze cases from Daegu and Jeju education offices when IB programmes had been implemented for 1~2 years. The study found that grassroots efforts were crucial for IB programme implementation, as indicated by the Daegu case. On the other hand, Lim (2023), based on the analysis of IB schools in Daegu and Jeju, suggested five necessary conditions for the introduction of the DP: 1) the need for understanding and consensus-building for IB programmes, support for building a coherence between national curriculum and IB programmes, 2) establishment of linkage between the DP and university admission systems, 3) necessity for training IB specialists and supporting their professional growth, 4) the need for school culture transformation into learning communities, and 5) additional related administrative and financial supports.

Existing studies also explored the perceptions of various stakeholders surrounding IB schools,

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<sup>5</sup> However, it should be noted that students in the DP in local schools in South Korea are mostly taught and assessed in Korean, due to the dual-language DP.

primarily teachers, coordinators, and students. Park (2013, 2014) conducted a survey on the perceptions of teachers, coordinators, and students at an international school in Seoul implementing the DP. Overall, teachers perceived the philosophy and the components of the DP positively, alongside noting the significance of interactions between teachers and students. However, teachers identified difficulties in their relationships with parents due to insufficient information about the DP being disseminated. Students expressed high level of satisfaction with teacher enthusiasm and self-directed learning, but they also found a large amount of homework and essays to be the most challenging aspects of the DP. Despite existing research, there is a scarcity of empirical studies focusing on local schools.

Kim (2016, 2018) highlighted university admissions as a key issue in implementing IB programmes. Considering the significance of the national university entrance exam, this finding is not surprising. More important is that Kim's (2016, 2018) highlighted disparities between the domestic high school grading system and the lack of consideration for IB scores to be integrated into the domestic grading system through NEIS. Ryu and Kim (2018) also raised a problem of the compatibility between the DP assessment and the domestic grading system in a larger context of university admission. In contrast to Kim (2016, 2018), the stance of Ryu and Kim (2018) is more critical or skeptical of the introduction of the DP to local schools, because of the potential consequences of implementing DP in public education such as the risk of increased stratification within schools and a possible surge in private tutoring if DP were included in the regular admissions process.

Despite the contribution of the previous research, there are several limitations in the existing studies on the DP. Primarily, the prior studies rarely touch upon leadership issues in implementing the DP. Also, parents' perspectives are less explored. Most studies focus more on policy issues in relation to the compatibility between the national curriculum and exam and the DP. As a result, micro-level issues taking place on the ground are less charted such as how DP students experience the DP and in what way teachers address pedagogical challenges facing them. In addition, the prior studies' criticisms on the DP such as the possible increase in educational inequity and shadow education are less empirically evidenced, even though they are critical issues.

# 3. QUALITATIVE STUDY OF NINE IB SCHOOLS

## 3.1. School Selection and Interview Data Collection

We selected three schools each for the DP, MYP, and PYP. To ensure the maximum variation of relevant school demographics in our sampling, we considered the following publicly available school demographic information: Language of instruction, Province (i.e., Daegu or Jeju), School size, Public/Private, Co-Educational, School SES, Full (entire grade) or partial (selected classes) implementation of IB programmes, and other contexts relevant to South Korea (See Appendices 1-1 and 1-2). Taking into account all of the criteria for our sampling, we selected nine schools and successfully achieved data collection from all of them. Table 3-1 details our interview data by school region, name, programme, interviewee position, number of interviewees, interview duration, and interview date.

**Table 3-1. Details of the Interview Data Collection from the Nine Schools**

ID	Region	School Name	Programme	Position	No. of Interviewee	Duration (in minutes)	Date
1	Daegu	Daegu 7	PYP	Principal & leadership team	3	60	27-Nov-23
2			PYP	Coordinator	1	39	27-Nov-23
3			PYP	Teacher	1	54	27-Nov-23
4			PYP	Teacher	1	54	27-Nov-23
5			PYP	Teacher FGI	5	62	27-Nov-23
6			PYP	Student FGI	8	53	27-Nov-23
7			PYP	Parent FGI	3	69	27-Nov-23
8	Daegu	Daegu 12	MYP	Principal	1	67	4-Dec-23
9			MYP	Coordinator	1	66	4-Dec-23
10			MYP	Teacher	1	40	4-Dec-23
11			MYP	Teacher	1	53	4-Dec-23

12			MYP	Teacher	1	41	4-Dec-23
13			MYP	Teacher	1	55	4-Dec-23
14			MYP	Teacher	1	40	4-Dec-23
15			MYP	Teacher FGI	4	38	4-Dec-23
16			MYP	Student FGI	8	40	4-Dec-23
17			MYP	Parent FGI	3	44	4-Dec-23
18			DP	Principal	1	58	24-Nov-23
19			DP	Coordinator	1	58	24-Nov-23
20			DP	Teacher	1	44	24-Nov-23
21			DP	Teacher	1	37	24-Nov-23
22			DP	Teacher	1	39	24-Nov-23
23	Daegu	Daegu 11	DP	Teacher	1	45	24-Nov-23
24			DP	Teacher	1	37	24-Nov-23
25			DP	Teacher FGI	3	44	24-Nov-23
26			DP	Student FGI	8	51	24-Nov-23
27			DP	Parent	1	39	24-Nov-23
28			PYP	Principal	1	62	18-Dec-23
29			PYP	Coordinator	1	75	18-Dec-23
30			PYP	Teacher	1	82	18-Dec-23
31			PYP	Teacher	1	50	18-Dec-23
32	Jeju	Jeju 1	PYP	Teacher	1	54	18-Dec-23
33			PYP	Teacher FGI	5	72	18-Dec-23
34			PYP	Student FGI	8	72	18-Dec-23
35			PYP	Parent FGI	3	56	18-Dec-23
36	Jeju	Jeju 3	MYP	Principal	1	50	15-Dec-23

37			MYP	Coordinator	1	64	15-Dec-23
38			MYP	Teacher	1	44	15-Dec-23
39			MYP	Teacher	1	44	15-Dec-23
40			MYP	Teacher	1	22	15-Dec-23
41			MYP	Teacher FGI	4	62	15-Dec-23
42			MYP	Student FGI	8	63	15-Dec-23
43			MYP	Parent FGI	3	69	15-Dec-23
44	Jeju	Jeju 2	DP	Principal	1	72	19-Dec-23
45			DP	Coordinator	1	50	19-Dec-23
46			DP	Teacher	1	34	19-Dec-23
47			DP	Teacher	1	52	19-Dec-23
48			DP	Teacher	1	43	19-Dec-23
49			DP	Teacher	1	48	19-Dec-23
50			DP	Teacher	1	32	19-Dec-23
51			DP	Teacher FGI	4	57	19-Dec-23
52			DP	Student FGI	7	88	19-Dec-23
53			DP	Parent FGI	2	68	19-Dec-23
54	Daegu	Daegu 3	PYP	Principal	1	72	1-Feb-24
55			PYP	Teacher	1	37	1-Feb-24
56			PYP	Teacher	1	52	1-Feb-24
57			PYP	Teacher	1	53	1-Feb-24
58			PYP	Parent FGI	3	68	1-Feb-24
59			PYP	Student FGI	8	44	1-Feb-24
60			PYP	Teacher FGI	3	37	1-Feb-24
61	Daegu	Daegu 10	MYP	Principal	1	44	6-Feb-24

62			MYP	Coordinator	1	33	6-Feb-24
63			MYP	Teacher	1	30	6-Feb-24
64			MYP	Teacher	1	25	6-Feb-24
65			MYP	Teacher	1	31	6-Feb-24
66			MYP	Parent FGI	3	56	6-Feb-24
67			MYP	Student FGI	9	39	6-Feb-24
68			MYP	Teacher FGI	3	64	6-Feb-24
69			Daegu	Daegu 14	DP	Principal	1
70	DP	Coordinator			1	69	5-Feb-25
71	DP	Teacher			1	52	5-Feb-25
72	DP	Teacher			1	69	5-Feb-25
73	DP	Teacher			1	38	5-Feb-25
74	DP	Teacher			1	39	5-Feb-25
75	DP	Teacher			1	39	5-Feb-25
76	DP	Teacher			1	47	5-Feb-25
77	DP	Parent FGI			3	55	5-Feb-25
78	DP	Student FGI			3	59	5-Feb-25
79	DP	Student FGI (follow-up)			1	44	5-Feb-25
80	DP	Teacher FGI			4	51	5-Feb-25

Note: Most interviews were done individually and “FGI” in the table indicates focus group interviews, in alignment with the original proposal.

In total, 80 interviews were conducted with 181 school members from the nine schools (see Tables 3-2, 3-3, & 3-4). As cited in Table 3-3, the total duration of the interviews was 4,134 minutes (approximately 69 hours). On average, each interview lasted 53 minutes, though there was some variation in the exact interview times (ranging from 45 minutes for teacher interviews to 62 minutes for principal interviews on average).

**Table 3-2. Number of Interviews**

	Teacher	Teacher FGI	Principal	Coordinator	Parent FGI	Student FGI	Total
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<b>Daegu (subtotal)</b>	<b>24</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>54</b>
PYP	5	2	2	1	2	2	14
MYP	8	2	2	2	2	2	18
DP	11	2	2	2	2	3	22
<b>Jeju (subtotal)</b>	<b>11</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>26</b>
PYP	3	1	1	1	1	1	8
MYP	3	1	1	1	1	1	8
DP	5	1	1	1	1	1	10
<b>Total</b>	<b>35</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>80</b>

**Table 3-3. Number of Interviewees Who Participated in the Interviews**

	Teacher	Teacher FGI	Principal	Coordinator	Parent FGI	Student FGI	Total
<b>Daegu (subtotal)</b>	<b>24</b>	<b>22</b>	<b>8</b>	<b>5</b>	<b>16</b>	<b>45</b>	<b>120</b>
PYP	5	8	4	1	6	16	40
MYP	8	7	2	2	6	17	42
DP	11	7	2	2	4	12	38
<b>Jeju (subtotal)</b>	<b>11</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>8</b>	<b>23</b>	<b>61</b>
PYP	3	5	1	1	3	8	21
MYP	3	4	1	1	3	8	20
DP	5	4	1	1	2	7	20
<b>Total</b>	<b>35</b>	<b>35</b>	<b>11</b>	<b>8</b>	<b>24</b>	<b>68</b>	<b>181</b>

Note. For principal interviews, two additional school leaders, including a vice principal, joined the principal interview in one school in Daegu.

**Table 3-4. Duration of Interviews (in Minutes)**

	Teacher	Teacher FGI	Principal	Coordinator	Parent FGI	Student FGI	Total
<b>Daegu (subtotal)</b>	<b>1051</b>	<b>296</b>	<b>376</b>	<b>265</b>	<b>331</b>	<b>330</b>	<b>2,649</b>
PYP	250	99	132	39	137	97	754
MYP	315	102	111	99	100	79	806
DP	486	95	133	127	94	154	1089
<b>Jeju (subtotal)</b>	<b>505</b>	<b>191</b>	<b>184</b>	<b>189</b>	<b>193</b>	<b>223</b>	<b>1,485</b>
PYP	186	72	62	75	56	72	523
MYP	110	62	50	64	69	63	418
DP	209	57	72	50	68	88	544
<b>Total</b>	<b>1556</b>	<b>487</b>	<b>560</b>	<b>454</b>	<b>524</b>	<b>553</b>	<b>4,134</b>

Note. For principal interviews, two additional school leaders, including a vice principal, joined the principal interview in one school in Daegu.

We conducted both individual and focus group interviews (FGIs). First, we targeted principals and programme coordinators for individual interviews, given their leadership role in implementing their IB programme. We also conducted individual interviews with teachers who played a key role in implementing the IB programmes in their class. The number of teacher interviews varied in proportion with the staff numbers at the school. After the individual interviews, we conducted an FGI with teachers at each school. The FGI included the coordinator. FGIs enabled us to gather a richer collection of data through discussions among participants as they shared, compared, clarified, and complemented each other's opinions and experiences of complex issues (Cousin, 2009). We considered a balance between homogeneity and heterogeneity among FGI members by including the programme coordinator and three IB teachers. They were all actively involved in implementing the IB programme at their school, which suggests they share common values. However, their different roles in the implementation process can highlight group dynamics and bring certain issues to the forefront<sup>6</sup> (Caillaud et al., 2022). Each FGI with teachers consisted of three to five teachers to facilitate deeper discussions and reflections.

We also conducted another batch of FGIs with students. Given that the number of students is significantly greater than staff members in each school, we gathered data through FGIs instead of one-on-one interviews to encompass larger numbers where possible. For interviews with parents, we intended to conduct FGIs with three parent representatives from each school's PTA, taking into consideration representativeness. However, depending on the availability of parents, we did an individual interview with a parent from one school while maintaining three parents for an FGI in the remaining schools.

For the interviews above, we initially developed an interview protocol based on our literature reviews in conjunction with the research questions. The initial protocol was developed through a "think-aloud" procedure, based on the team's collective discussion. It was later shared with a couple of external experts on the IB in the context of South Korea. Based on the qualitative feedback from experts, the protocol was refined in terms of content and wording. The protocol encompassed approximately 10 to 15 questions (including sub-questions), tailored to different types of interviewees: principal, coordinator, teacher, teacher FGI, student FGI, and parent FGI. The questions were semi-structured. After the interview completion with six schools, we reflected whether there were any important topics that were not covered by the protocol. In so doing, we added a couple of new questions. The final version of the protocol is attached in Appendices 2-1 to 2-6. All interviews were audio recorded, as per the consent form of research participation.

Finally, during and after each interview, we wrote analytic memos based on our impressions and reflections in order to capture more nuanced information. In-house materials such as archival data were also gathered, in order to triangulate or supplement interview data.

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<sup>6</sup> Principals were not included in FGIs for coordinators and teachers, given the nature of strong organizational hierarchy in most Korean schools.



### 3.2. Data Analysis

In the overall process of data analysis, we used a thematic analysis, developing a coding scheme based on patterns that emerged from the interviews (Miles & Huberman, 1994). The software we used to analyze the data was Atlas.ti 23. The following description details the five stages of our data analysis process.

First, a close reading of the collected transcripts and field notes was conducted to identify emergent patterns and inductive codes in the descriptive words and concepts of the participants. Throughout the coding process we focused on generating inductive codes, but occasionally coded data using deductive codes informed by our research questions. In other words, although we had a codebook that listed a set of codes based on the research questions, we conducted *open* coding by referencing the codebook rather than relying on it. Thus, as new ideas emerged during the analysis that differed from the initial codes, we revised the code list based on these ideas (Gibbs, 2018).

Second, we coded interesting features of the data into incidents and compared these incidents with each other, while at the same time clustering them into more general categories. In this phase, we wrote notes (comments) for each category that emerged. The notes recorded the definition and nature of each category along with the ideas behind it. This technique helped the individual researchers apply the codes in a consistent manner and allowed for effective comparison and synthesis of codes/categories across the researchers. We also wrote analytical memos to gain insight into emerging themes related to the opportunities and benefits, challenges and issues, and changes in student learning, teaching practices, and school organization associated with the implementation of the IB programme (Miles & Huberman, 1994). At this stage, memos were also taken to capture nuances in the participants' perceptions and practices regarding the implementation of the IB programme (Gibbs, 2018).

Third, we collapsed the constructed categories into more condensed properties/assertions. We did this by combining those with similar meanings. We also refined our axes by developing and revising the categories and linking related categories together. By the end of this stage, we identified dense or central categories by counting the number of grounded citations in each category and representing them numerically.

Fourth, we described the landscape of IB programme implementation in South Korea, focusing on the contexts and characteristics of the participating schools. We then wrote narratives about the conceptions of key stakeholders (i.e., school leaders, IB coordinators, teachers, students, parents) about IB programme implementation in their schools, including the perceived opportunities and benefits of this implementation; the main challenges and identified solutions for implementing it in parallel with the current national curriculum requirements; and the changes in student learning, teaching practices, and school organization as a result of its implementation.

Finally, for ensuring the authenticity and trustworthiness of our qualitative data analysis, several techniques were employed. First, as another preliminary work to overview the characteristics of the data, visualization work was done using word clouds. The word cloud illustrated the most frequently mentioned vocabularies in each stakeholder's interviews, revealing commonly used

vocabularies among stakeholders, and distinguishing vocabularies used by different stakeholders. Next, we triangulated our data from multiple sources, evaluated the inter-coder consistency,<sup>7</sup> and adopted a feedback solicitation process to accommodate alternative interpretations of the same transcript. Third, to ensure both transparency and systematic analysis of the data, we developed a codebook for each stakeholder group (i.e., students, teachers, coordinators, principals, parents) and shared it with all research team members. The comprehensive codebooks of teacher interviews and parent interviews are attached in Appendices 3-1 and 3-2, respectively, as examples. The codebook helped to capture the overall picture of the interview data before our data analysis. Based on the codebook, we conducted additional coding of interview data from principals, coordinators, teachers, parents, and students. As an example, the list of codes from the student interview data is provided in Appendix 3-3.

### 3.3. The Landscape of IB Programme Implementation

The following key themes emerged from our qualitative data analysis:

- **The perceived need for school improvement**
- **Changing local demographics by IB schools**
- **Parents opting for IB schools due to distrust in public education**
- **Courage for enrollment in IB schools**
- **Limited parental involvement in IB schools**

**The Perceived Need for School Improvement:** School principals and coordinators commonly cited the qualitative improvement of education as the rationale for introducing the IB programme at their schools. Additionally, they discussed the policy initiatives of superintendents and local education offices. Ultimately, school principals aimed to connect the introduction of the IB programme with the improvement of school education. This could be seen as an effort to overcome challenging school situations, provide students with diverse educational experiences, and achieve transformations such as the cultivation of global consciousness and a shift towards student-centered teaching through the adoption of the IB programmes. These features are reflected in the following interview excerpts:

*In order to enhance educational competitiveness, there was a recognition that ultimately, there needs to be a qualitative improvement in the programmes offered by schools. (DP Coordinator A)*

*We aimed to cultivate students' future competencies through improvements in teaching and evaluation... Such as critical thinking, creativity, self-management skills, collaborative abilities, and communication skills... I realized that IB could serve as a tool to foster these competencies. We've been striving to improve our teaching methods for about 14 years... Despite our efforts, we often hit a wall in the evaluation, especially when it comes to university admissions. So, we wondered why*

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<sup>7</sup> We checked how consistent the coding was made between different researchers within the team (i.e., three pairs of researchers compared their coding to see if they agreed).

*our efforts weren't yielding results, why improvement in assessment and evaluation<sup>8</sup> seemed elusive. It was during this contemplation that we decided to adopt the IB programme. (MYP Vice Principal B)*

*(The school is located in) a neglected rural area...where there's a sense of crisis that the region is disappearing, with villages vanishing... Some small schools faced the threat of closure as the number of students drastically declined. Moreover, there were disparities in the educational dimensions between urban and rural areas. There were disparities in academic achievement and even in the school environment and student levels. Introducing IB education seemed to be a multi-faceted solution to address these issues. (DP Principal D)*

*One frustration among educators is that education should be about fostering students' growth, but currently, it feels too confined. However, IB provides a framework that truly supports students in driving their own growth. Within that framework, students exhibit a high degree of autonomy in their development. IB isn't just about guiding students' academic performance; rather, due to its assessment and evaluation methods, it compels teachers to enhance their expertise. When both teachers and students take initiative, their relationship becomes more positive, and as a result, the school culture naturally fosters collaboration. That's what makes IB so appealing... (DP Principal G)*

**Changing Local Demographics by IB Schools:** On Jeju Island, there has been an intensification of people moving to the Pyoseon area to enroll their children in schools that offer the IB programmes, leading to the expansion and reconstruction of these IB schools. Some families, not just from other parts of Jeju Island, but also from the mainland of South Korea, have recently moved to those areas where IB schools are located on Jeju. Since those families value IB programmes (for different reasons), they have chosen to move from the mainland. Indigenous families are worried about such a fast influx because they think this will deteriorate the learning environments and facilities for existing students. Parents in elementary schools implementing the PYP rather than the MYP or the DP expressed the following concerns:

*They have to convert laboratories and other auxiliary facilities into classrooms, and this directly affects the students who are already attending the school. Because they need to use these facilities during their classes, and they can't, as these are gradually disappearing, leaving only regular classrooms behind. It's becoming no different from a regular, box-shaped school. I asked the principal if there's no way to control this, and he said there's nothing they can do about it. So, I urged him to expedite the expansion so that the current students don't suffer, and he said he would do his best. (PYP, Parent K.)*

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<sup>8</sup> In Korean, both 'assessment' and 'evaluation' are often translated interchangeably as '평가.' For this reason, we sometimes use both terms together when translating our interview data into English in this report, while attempting to distinguish between the two based on the context of each interview quote.

*One thing that worries me about the IB is that they are increasing the number of classes in middle schools. There's a primary school called OO, where the number of incoming students is so high that they had to rent modular, prefabricated classrooms because they couldn't expand the school. This situation is difficult for the teachers, and it will also be tough for our children, with the damage ultimately affecting our families. The middle school is currently constructing two new classrooms, but they're already planning to admit more students next year. It seems there's a limit to increasing the number of teachers, which means if the teachers are struggling, the students will struggle too. No matter how much they want to conduct their classes with a smile, it's difficult because they're human, and this will ultimately affect our children. (PYP, Parent X)*

**Parents Opting for IB Schools Due to Distrust in Public Education:** The data collected in relation to parents who show interest in enrolling their children in IB schools suggested a key reason for this was their distrust of the South Korean public education system, given that it is swayed by high competition for the national university entrance exam. This sentiment was especially evident among those who moved to Jeju from other regions, such as Seoul. Their critical view of the limitations of the Korean public education system, and how it led them to move to Jeju, is illustrated in the following quotes:

*The only alternative to public education seems to be alternative schools, but in Jeju, most schools in towns and villages are akin to alternative schools. This was influenced by a previous superintendent who favored such programmes, creating about 7-8 programmes that allowed students to enjoy more freedom in their learning despite the standard public education system, which attracted young mothers from the mainland to move here... The introduction of the IB somewhat overlaps with this trend. As you know, international schools are prohibitively expensive. The economic burden, combined with the anxiety of competing with students who have returned from studying abroad, has made the IB appealing as it is part of the public education system, less costly, and offers benefits like native English-speaking teachers. (PYP, Parent D)*

*My child was in the third grade of elementary school at the time. One day, they came down with a fever and lay in bed. This small child, who is now in the third grade of middle school, asked why schools force all students, including themselves, to be confined and learn the same things at set times, just staring at the teacher. 'Who created such a school system?' they wondered. (PYP, Parent R)*

*Professor Lee: A middle school third-grader said this?*

*Yes, and then my child lay down, unsure if they could continue attending school. I told them, 'Think about what you would do if you didn't go to school. It seems like you might not have to go.' After pondering this, my*

*child thought that not attending school wouldn't leave them with much to do after all. We moved from Seongnam, whereby the third grade, most children were already enrolled in various private institutions ('hakwon'). Although the school was established in a newly developed area with plenty of children, the playgrounds were mostly empty, used by preschool children only. Watching my child being bored at the playground, I eventually sent him to a taekwondo academy. Then, my husband took parental leave (which allowed us to move to Jeju for a while). We were living in Seogwipo's new city area when I heard the news that the IB was being introduced to public education in Jeju for the first time. I looked into where it was being implemented and found out it was here in OO. Without hesitation, that's why we came here. (PYP, Parent R)*

*When my eldest was in third grade and my youngest in first, I sent them both to elementary school. There were differences between the grades and various educational environments, and when I got involved, I strongly felt that the public education system in Seoul was not working for us. Especially, my younger child enjoyed a month of discussion-based classes in kindergarten where the kids would decide on a topic. They would set a topic for about one or two weeks, but sometimes, the teacher would discuss the main and sub-topics with them for up to a month, which I really liked. But then, when he started first grade, I was shocked to hear teachers say, "Stop asking questions." This reminded me of something earlier about buses. When my child was in third grade, I had to send him to tutor due to my job, and he started to really like it. The tutoring centers are very good at marketing, so he kept wanting to do more, even advanced studies. I initially sent him to tutor to fill some time, but in the city, I couldn't keep up with the school curriculum without the help of tutoring centers. They took care of everything, even preparing for tests, which I wasn't aware of. But when I tried to step back, it reached a point where I couldn't. What shocked me was when a bus from the tutoring center came into our complex after 9 PM, and fifth graders got off. I asked some mothers and older sisters, and they said it's common for fifth graders to attend such late sessions. That was hard for me. There were various things I wanted to avoid in the city, but the main reason was to get away from the public education system so that our family of five could live and communicate together. But after moving, we suddenly switched to IB. I specifically looked for a quieter school with only one class per grade. (MYP, Parent OJY)*

*When I was in middle and high school, I'm not trying to belittle our national education curriculum, but for example, if you're supposed to build a house, the curriculum would have you vaguely memorize what goes on the roof, what's in the bricks, and then have you pick out what doesn't belong or find the correct items. It's that sort of study. On the other hand, the IB education felt more like actually trying to build a house,*

*encountering issues like using certain materials on the roof only to find out they leak, and then continuously searching and studying the necessary fields as needed. ... I've noticed that my child enjoys leading friends in group assignments or similar activities even more. (DP, Parent PS2)*

**Courage for Enrollment in IB Schools:** In contrast to the new influx of families who seek IB schools noted above, existing parents still perceived the community's opinion towards the IB as unfriendly and critical. These concerns were more salient among parents in middle schools and high schools. Within the community, there are even people who said it was "insane" to enroll in the IB schools, given the disadvantage in university admissions. These parents believed that deciding to send their child to one of the IB schools in Jeju required significant courage, as Parent O describes:

*.. There was a tremendous dissonance in the community when this issue (IB) came up that everyone had been avoiding. We (those who decided to send their children to the IB school) were even deemed insane. My child is in the top tier academically, so his teachers and peers asked, "why do you 'ruin' such a 'promising' student?" We received numerous calls questioning our decision, with suggestions to send our child to a more conventional school in Seoul, given our family's connections there...This situation was further complicated by the educational reforms during the superintendent's election, causing anxiety over how our choices might affect our child's future. However, I did not consider the entrance exams. When my child was in the 9th grade, it was a very emotional time for us...We engaged in month-long discussions. We often converse extensively, especially during those challenging times but finally reached to a consensus that the educational content provided by the IB was worthwhile, not solely for university preparation but as valuable learning for this stage of their life...Interestingly, when we finally discussed it openly with our child after months of our struggles and backroom conversations, he simply smiled without any concerns, and it helped us make this bold decision... (MYP, Parent O)*

Some high school students participating in the DP stated that under the current admissions system, they have become "scapegoats" for the new education policy (i.e., IB implementation) (DP, Student P).

**Limited Parental Involvement in IB Schools:** Although most parents interviewed indicated that it was a courageous and difficult decision for them to send their children to the IB schools, parental involvement in IB schools is not as high as expected. In other words, the parent community within these schools was not particularly active. However, it seemed that parents were doing their best within their capabilities to exchange information beneficial for their children's education and the school. These patterns of parental involvement, although limited, were most evident in the DP.

*As I mentioned earlier, there aren't many parents who came specifically because they wanted their children to undergo an intensive IB education, so there's hardly any community communication. In our freshman year,*

*since most of our dorm students come from out of town, it was mainly the dorm moms who communicated with each other. We are in the community truly for the IB, so our interactions are usually limited to just sharing news articles, perhaps? (DP, Parent N)*

*Professor Cho: So is it operated somewhat like an online group chat?*

*Parent N: Yes, the dormitory moms share information like that, nothing extensive. Just things like 'our school finally got the IB accreditation!' That's about it. As for sharing anything significant about the IB, there wasn't much of that. It's more about mothers with similar interests communicating with each other as the children move up to the second and third grades. We haven't really developed a system for in-depth professional discussions about the IB yet (DP, Parent N)*

### **3.4. Benefits, Opportunities, and Changes from IB Programme Implementation**

The following key themes about the implementation of the IB programmes emerged from our qualitative data analysis:

- **Enhanced students' self-directed learning**
- **Private supplementary tutoring not necessary**
- **Advantages in preparing for higher-level schools**
- **Deep learning through inquiry and discussion**
- **Improvement in writing and speaking skills**
- **Improvement in thinking skills**
- **Enhanced students' life skills based on the Learner Profile**
- **Heightened global citizenship awareness**
- **Benefits of IB education linked to reality**
- **Good friendship and mutual growth**
- **Students enjoying a happy school life**
- **Improved parent-child relationships**
- **Parents' satisfaction with school and local education authority**
- **Enhanced teachers' assessment skills**
- **Teachers' sense of professional growth through collaboration**
- **Enhanced understanding of teaching practices**
- **Teachers' commitment and caring**
- **Changes in school culture**

**Enhanced Students' Self-Directed Learning:** Most IB teachers and parents noted an improvement in their children's self-directed learning through a series of experiences in presentations, inquiries, and discussion-based learning in IB schools.

*They've become much more outgoing. In IB, there's a lot of emphasis on making presentations, and my eldest, who is quite shy and introverted, has become much more comfortable speaking in front of many people,*

teachers, and friends. Though still introverted, she has improved significantly, especially in her presentation skills. (PYP, Parent K,)

*This aspect does make the child a bit more proactive, as you mentioned earlier about having to present and express themselves. Since the children aren't just passively receiving information (while participating in the IB programme), they become more proactive and develop a stronger sense of agency. Even though it was tough at times, the process of overcoming challenges, feeling proud of their achievements, and seeing their own development through repeated experiences is quite visible. (PYP, Parent J,)* My child has become very interested in volunteer work. So, as he's moving up to third grade, he mentioned he's going to start a club with a few friends. ... And they'll probably plan it themselves. So, the goal is to create a club for volunteer activities. He's not the type to think of such things on his own. ... But as he's about to move up to third grade, he found a few friends who share the same passion, so they're going to form this club and he's already discussed it with the teacher. This has spurred him to form his own ideas, and emotionally, he has grown a lot internally. Although there's a downside that he might be too meddlesome, such meddlesomeness has broadened his world in a really positive way. That's a wonderful thing. So, we're really grateful to the teacher for their support.... As he enters third grade, one teacher suggested, 'Try this.' It seems like this has given him an extra boost of confidence and strengthened his inner resolve. (MYP, Parent JAM 1)

*Last year, we did a survey of all of our fifth graders, and the question was, "How have you grown and changed through your participation in an IB programme?"... and a lot of the responses were that they "enjoyed" being in class, that they realized that the class is literally what they (the students) make of it. Based on those responses, then, a lot of the responses were that they learned how to "collaborate", how to work together to do something with their peers. (PYP, Teacher HM)*

*In contrast to non-IB schools, I've found that there's actually a lot more student agency and ownership of their learning in IB schools. For example, we recently covered population change in Korea. In my previous (non-IB) school, the students were already provided with some good resources on population change... We used to just show the changes in the composition of the population, or the overall population using bar-graphs and line-graphs and then interpret them... But in the IB school, the students are guided to create their own graphs. They go to the "National Statistics Portal" and do their own research, setting their own years and organizing their research from the oldest available year to the most recent, not every year, but at regular intervals of time. For example, if the students decide, "Let's look at a time interval of 20 years," they will research and analyze statistics from 1960, 1980, 2000, and 2020, and then create their own*



*graphs, including the total population and demographics... I think the IB provides an overall framework for students to take the initiative to research and complete their work... So, the role of the teacher (in the IB) changes to one of providing support and asking important questions when students encounter barriers in their research. (PYP, teacher JJ)*

*There has been significant change, particularly in terms of student-directed learning, where students make choices and lead their own learning. I believe students have developed strong abilities to think critically and engage in deep learning. Additionally, as an IB educator, I find myself considering not only textbooks and traditional curricula but also global issues and other contextual elements from life. It seems that these factors keep coming up, and I find myself contemplating how to incorporate them into my lessons. Even I, as a teacher, have been pondering this a lot, and I notice that the students, too, are more aware of global news and relate it to what we discuss in class. (PYP, teacher KJ)*

*So, as a result, students are increasingly developing habits of questioning themselves when facing any kind of problem. This habit becomes even more pronounced in the second year. In the IB programme, students are required to tackle assignments on their own, and since there is a lot of self-directed learning involved, they naturally develop this skill further. (DP, teacher JJ)*

Similar perceptions were also identified from students' voices. It is worth noting how passive students gradually became more self-directed while participating in the IB.

*When I'm given a task, I wonder how long it will take, since there are now four team members. This is going to take a lot of time, because I can write this much on my own. Do you have any sense to predict how long it will take and plan accordingly? skill? I think something like that has happened. (DP, student C)*

*When I do IB, I study in a little more detail. I kept wondering why this was the case, and as a result, I got into the habit of trying to find out more when I kept wondering why things had to be multiplied like this when finding the area, for example, at the academy. (PYP, student D)*

*Originally, before attending IB, I wasn't good at taking initiative, but now that I'm doing IB, I think I've gotten used to it and have been able to overcome some of the difficulties by solving workbooks at home. (PYP, student G)*

Furthermore, the nine coordinators' interviews resonate with the excerpts from students, teachers and parents presented above. The coordinators highlighted the improvement of students' academic capabilities and the increase in students' task commitment, expression skills, and self-directed study.

*The students have improved significantly. So, for example, they do projects much better and when they come forward to present, they really present with evidence and do these things well. Now, in my English class when I say, 'Let's make a presentation,' the kids ask, 'Teacher, how should we cite the sources of the pictures?' If I don't suggest it, they always bring it up first. They are so knowledgeable about intellectual property rights and such fields, even more than me in some aspects. Also, when we take them to other competitions or programmes, people notice the difference between our school kids and others. (MYP Coordinator E)*

*It's crucial to have an admissions process that considers the needs of students, particularly those from marginalized rural areas. Even within this framework, students demonstrate a certain distinctiveness during interviews compared to others... This is because, having previously been a homeroom teacher for seniors at other schools, I've observed that these students are more exposed to such experiences, allowing them to express their opinions in a more logical and compelling manner. (DP Coordinator D)*

*IB certainly enhances competence through classes. It's clear that speaking and writing skills improve, and I've even seen very helpless kids become more proactive. (MYP Coordinator B)*

**Private Supplementary Tutoring Not Necessary:** IB students felt that private supplementary tutoring was not necessary because IB assessments are different from the traditional paper-based assessments in regular schools, and IB education places emphasis on self-directed learning. This phenomenon was mainly found in MYP students.

*For some reason, in my previous school, I studied at school now, but it was a bit difficult to keep up if I didn't get private supplementary tutoring and go to an academy. "After coming to IB OO middle school, I felt like I didn't need any private education anymore. (MYP, student D)*

*I don't go to an academy, and if you look at my friends around me, they go there a lot. First of all, our course is very different from the academy's course, and then each teacher places different importance on it. Even if you look at the same concept, if you want to learn about that part, it is better to just study on your own rather than going to an academy. Going to an academy is slightly less effective, and studying on your own helps you remember the teacher's explanations a lot because you can remember them. "I really do a lot of self-directed learning, almost 100% of the time. (MYP, student F)*

**Advantages in Preparing for Higher-Level Schools:** IB students generally felt that they had several advantages when preparing for higher-level education, including university entrance and studies. These advantages stemmed from their learning experiences and activities such as

performance assessments, essays, interviews, and extra-curricular activity records.

*And I heard that there would be something called a performance assessment in middle school or high school, and for the performance assessment, I heard that you need to have the skills and intelligence to write things that are somewhat essay-type or deeply investigative. However, when I took the IB, I thought it was better because I felt like I would be able to do well in middle school because I had done such in-depth research many times. – (PYP, student G)*

*Nowadays, there are essay-type and interview-type things in college admissions, so for this reason, we also give presentations, and I think it will be more advantageous when applying for college. (PYP, student H)*

*(For non-IB students), if you solve a problem, your grade goes up, and if you just sit down and solve the problem by fighting, of course these friends can clearly see the path, so I was very envious of this, but for us IB, there is no real path, and even if you look for materials, it is difficult to find the original English text. I should have read it in Chinese, and when I was looking for materials, I had to read it in Chinese. So, at first, I was very jealous and thought that I was taking a reckless path by choosing this IB, but I was interviewed during the university entrance exam and the interviewer was more special. Should I say I gave it to you? They also found it very interesting that I wrote the 4000-word EE and that I encountered a lot of problems in various subjects, searched a lot, and failed. (DP, student K)*

Teachers also highlighted the practical advantages of the IB in preparing students for university entrance, as it necessitates students to be better prepared for interviews.

*From the students' perspective, honestly, they don't think IB is bad. For one thing, IB involves a lot of speaking assessments and students often have to make presentations through videos. So, although this might be a slightly off-topic point, in our school, for instance, when students went for interviews in their third year to enter high school, the interviewers mentioned that the IB students were different. So, in this regard, I think students gain a more diverse range of assessment opportunities and accumulate such experiences. (MYP, teacher KS)*

*Firstly, not many students from my school went to prestigious universities in Seoul. However, quite a few students did last year. So, compared to the previous year, there was an increase. Seeing that, I think, "Wow, there are schools that recognize our students' achievements." So, I actually think it turned out well. (DP, teacher PS-2)*

**Deep Learning through Inquiry and Discussion:** Parents also believed that the inquiry and discussion-based learning approach of the IB programmes enable students to engage in in-depth learning compared with the conventional educational curriculum. They particularly emphasized that such practical educational experiences, individually and collectively, helped students retain what they learned much longer.

*It's more action-oriented, unlike the national curriculum-based traditional education. In a regular school setting students are to learn the general content, but in our school, they directly search and find out how things work, connecting it with real-life experiences. These are things that we have to learn by doing as we go through life. (PYP, Parent L,)*

*Professor Lee: Through what's commonly referred to as inquiry and action-based education...*

*Because they learn by doing, the children won't forget what they've learned. (PYP, Parent L)*

*I asked a friend's mom from a (regular) school. They said their kids just found maps as tips. But because students are forced to find the information on their own, rather than having it in front of them, they retain more of what they learn over time from hands-on action and experience. (I could see that). (PYP, Parent P)*

*My son has just started first grade and, with IB now confirmed, he has decided he wants to go to Posan High School. As he engages in debates, he not only forms his own opinions but also listens to others', which is crucial for exploration and ultimately leads to reflection. He finds debating so enjoyable that he thinks it would be great if high school and even college could continue in this vein. It feels like this is the first step towards entering society, and he seems satisfied with the outcomes. By tailoring the results to the teachers' required phrases, he seems to score well, which is very beneficial for him. (MYP, Parent JSH)*

*As I mentioned earlier, there has been a lot of change in the way of speaking. The biggest change I've noticed is in the way of communication. During these years, going through grades 10, 11, and 12, there were things we saw in our son that we wouldn't have expected. I once had a conversation with Sungmin's mom, and she mentioned something similar, and we both really empathized with each other. He doesn't talk much at home, there's that too. Since we're living in a dormitory setting, seeing him only once a week, almost like a guest, perhaps there's a newfound affection. So, we end up sharing stories we hadn't before, and that's when I talked to Sungmin's mom. We agreed that our children's ways of communication have really changed. Truly. (DP, Parent Q)*

*Good point about IB. First of all, other schools only teach Korean, math, social studies, science, and English. But here, I thought it would be good to be able to choose a topic and explore it in detail with the kids by setting a research list 1 2 3. (PYP, student E)*

**Improvement in Writing and Speaking Skills:** Students felt that their writing skills had been improved through IB education compared with before. This was noticeable among MYP and DP students. Students also felt that their speaking skills had improved through IB education. This was commonly confirmed in PYP, MYP, and DP, and was observed as a change felt due to the many opportunities provided by IB activities themselves.

*In general, I hear a lot from students these days that the MZ generation has poor literacy skills, but while doing IB, children really do a lot of writing. Since most performance assessments involve writing at least once for each subject, I think my writing skills for them have also improved a lot. (MYP, student C)*

*When I talk to friends from general high schools, I have seen reports written by friends from general high schools. At that time, I looked from the side and wondered what you were writing a letter to. This is a report? I remember doing this, and when I started giving feedback, it was really endless. So, as a result, what I felt was that the kids at our school could definitely excel in the practice of expressing their thoughts in an academic format, such as a report, compared to their peers at regular high schools. (DP, student K)*

*Even if it's not necessarily an interview or a job, I think I now have the ability to interact with other people, be more active in teamwork, and have the ability to lead conversations. (PYP, student K)*

*I give a lot of presentations and my confidence grows when I present something. I think my fear of giving presentations has disappeared. (MYP, student C)*

*At the same time, I also corrected my speaking and learned a lot about how to keep my words in order so that the listeners can hear better. (DP, student C)*

**Improvement in Thinking Skills:** Students felt that their ability to think logically, their data research skills, and their creative capacity had been improved through IB education, when compared with before. In particular, DP students responded that they had developed a critical attitude and data research skills when processing various information. Creative capacity was commonly confirmed by PYP, MYP, and DP students, and they felt that their imagination and creativity were developed in the process of carrying out their own assignments.

*At my school, I used to just study by subject, but now that IB is available, instead of cramming, we integrate multiple subjects and have more time to collaborate with all of our friends, so now we have a focused class that improves thinking skills. "I think it's good because it's human education. (PYP, student G)*

*Because even if I look at the same work, the sense of theme that I create and the sense of theme of the work that I create have a completely different feel and texture, so in fact, the Korean language study I did until middle school was standardized, but now IB Korean language continues to be discussed a little more. "I felt like it was a task of thinking and constructing my own answer, so I learned how to respect other thoughts and that I had to continue thinking logically to be confident in my own thoughts. (DP, student H)*

*I think it's become something that I don't take a little bit too literally. Because, what you always learn during TOK is knowledge. When you have some information or knowledge, we keep discussing how to accept it. But I don't know if it's because of the process, but for example, when you come across some historical material, history always tells you to evaluate the limitations and values of the historical material, so now this historical material has loopholes in some respects, and I don't have the correct information. Perhaps because I went through the process of continuously thinking about whether it was right to give something, I formed an attitude of thinking again and accepting it more selectively when I came across various types of information, such as news or someone told me something. "I thought this was it. (DP, student G)*

*My ability to research data has improved a bit. Since academic honesty is so important, I think it would have been too much to carry out the assignment with just superficial research when using the materials I cited and obtained. Anyway, based on my understanding, I needed to describe the data and information again, but such a description was impossible with superficial data research, so I had to continue researching the data, and in the process, I developed my own data research method. I think I figured it out. And you will need these things later when you go out into society. (DP, student M)*

*But while doing UOI, we learned Korean history from beginning to end, and this time we learned about energy. In addition to what we learned, we also learned about sensors in science, so we combined all of these things, sensors that resist energy, and we created a robot. There is something like 'let's design something', and I think it was good because we were able to imagine based on what we learned. (PYP, student J)*

*So, it was a case where I memorized it and took the test. Since I have always been exposed to literature in that way to the point where I could write down the topic without making a single mistake, I was able to walk through the process of running toward awareness of the topic. I analyze things on my own and create thematic sentences myself, and these processes are very unfamiliar to me. So, I think those things actually helped me develop the ability to think creatively. (DP, student O)*

*Now, by solving this way or that, it's just about finding the value 'zero'<sup>9</sup>, but what IB made him realize is that he had to endlessly think of methods to find 'zero', which made math interesting for him recently. He keeps talking about it. So, I was quite moved by this problem alone, realizing that it was right for him to know this through IB. Yes, he can think a lot on his own. (MYP, Parent JAM-1)*

**Enhanced Students' Life Skills Based on the Learner Profile:** Teachers remarked that implementing the IB programmes enhanced students' life skills, aligning with IB's Learner Profile. They observed that students developed tolerance for diverse opinions and demonstrated good citizenship within their school communities.

*Furthermore, in life skills education, rather than being disconnected, in IB, there is a focus on the learner profile. Utilizing this learner profile, I incorporated aspects of life skills education that I had previously used in regular classrooms, such as virtues and other skills. By integrating these, we could explore how to develop such skills together in line with the learner profile. (PYP, teacher KJ)*

*Classroom management and life skills education involve listening more to the students' voices. Previously, this might have been done inadvertently, but now, given that learner agency is prioritized, we always put student initiative at the forefront. When it comes to activities like selecting teams for cooperative learning, assigning roles, or preparing for events, we always ask them what they want to do and what they're interested in. Additionally, in fostering friendships and life skills education, respect among peers is emphasized, along with the ten learner profile attributes that are available. (PYP, teacher PK)*

*It seems that students' assertiveness may sometimes lead them to perceive the teacher's words not as absolute but with a somewhat varied attitude. Moreover, in certain situations I've encountered, there have been cases of students who joined the IB class later and struggled to adapt, often maintaining strong opinions, sometimes motivated by their own interests. At first glance, such students may appear selfish, but over the course of a*

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<sup>9</sup> Here, the value zero is used metaphorically by a parent to refer to the traditional process in public education where math problem solving is focused solely on finding the answer.

*year, I observed both the effort students put into integrating into the group and their consideration of how to interact with such students. There was a sense of deliberation on how to accept her views or opinions without aggressively rebutting them, demonstrating a mindset of acceptance towards fellow members of our society. (DP, teacher KM)*

*In fact, the parent next to me thinks that it's not necessary to go to college, but honestly, I believe it's not necessary to go to high school either. I hope that whether my child becomes a doctor, a scientist, or a chef, or follows any path, they become someone who can forge their own way with initiative when they find their desired path. That's why I think this IB education ultimately increases initiative, as you mentioned. And education is particularly relevant today when AI is a hot topic, right? I was really surprised by the pace of development, which even AI developers seem to fear. But then, if we think about it, the educational system as we know it came into existence during the Industrial Revolution. So, the more I think about it, especially in the age of AI and after seeing the news recently, it makes me question more and more if this is the right kind of education... (MYP, Parent JRK)*

**Heightened global citizenship awareness - Students Took a Walk in the Woods and Came Out Taller than the Trees:** Students learned how to reflect on themselves through IB education and felt that this provided an opportunity for their own growth. This was more salient among MYP and DP students. Some students felt that through IB education, they had developed more persistence and patience than before. More importantly, many students felt that their global awareness was cultivated through IB education. This was commonly confirmed in PYP, MYP, and DP student interviews, and was observed as a change felt due to the influence of the IB education programmes that emphasize global citizenship.

*I think that through IB, students were able to reflect, but before, after conducting the assessment, they were only interested in their scores, but they were a little less focused on the process of carrying out the assessment and things like that. There were many cases where we failed, but I think we were able to make a little more progress by receiving feedback from the teacher and having time to reflect on ourselves. I don't think it ends with just assessment, but it becomes an opportunity for self-growth. (MYP, student B)*

*There was a moment when I was really immersed and crazy about this research, and because of this moment, I decided that I would just study this person in some academic way. Rather than just looking for other previous papers, I have to approach this person directly and sincerely ask what kind of person this person is. When it comes to social issues like these, I don't just recognize them by watching the news, I have to go there myself, and I think that taught me some empathy and communication. So, I think EE*



*itself was an education that helped me grow further and become a more open-minded person. (DP, student L)*

*I also think that when solving a problem, you develop the perseverance to keep going and not give up right away. – (MYP, student C)*

*We recently held an exhibition, and it was about our future sustainable global village. So, I think through that opportunity, I became more interested in issues and issues in the international community. (PYP, student P)*

*When we conduct a comprehensive assessment, we mostly use cases from our own country, but when we use cases from other countries to make a connection, we think about what kind of situation these countries are in and how they are different from our country, and it makes us think about not only Daegu but also Korea. Not only that, but I think there has been more interest in this happening all over the world. (MYP, student Y)*

*In the case of Korean, English, and chemistry, there is an atmosphere where ethics as an experimenter are emphasized much more than the Korean curriculum. And even in the case of the Korean language, thinking must be connected to some global issue. There is also an emphasis on certain ethics. Considering all these points, I think that ethics are considered in subjects and this is something that is not so evident in Korean courses. Therefore, I think I opened my eyes more to such global issues when I did IB. (DP, student C)*

**Benefits of IB Education Linked to Reality:** IB students generally felt differentiated and advantageous compared to regular schools in terms of improved ability of time use, criteria-based assessment, ability to immediately apply what they learned to life, and improved thinking skills. Additionally, they felt proud of attending an IB school due to these differences and advantages.

*The difference between regular schools and IB schools is that when children have a problem, they are more likely to solve it. Students who go to an IB school are stricter about allocating their time and only what roles they need to play, but regular schools are a bit more urgent when it comes to solving problems. I think there was a part of me taking things with me that I didn't need. (PYP, student B)*

*I think that since the class is now based on a concept-based inquiry process, It seems to stay in my mind a little longer than the simple cramming education I did before. Also, rather than learning simple knowledge, I am awakening concepts and principles through UOI exploration. I think the biggest difference is that I applied this to my life. (PYP, student J)*

*Because, for example, I had a really hard time with math, for example, I would write math reports or research questions like this in my daily life*

*without even thinking about it, but in the IB curriculum, this is compulsory, so I thought I'd give it a try, so I asked the question. [interviewer: Are you looking for something like this in your daily life?] There is a lidar car for the visually impaired, and I thought about where the rider should be positioned so that the visually impaired can have a wider field of view. Wasn't this a curriculum that allowed me to think more expansively about a wide variety of subjects? I wanted to. (DP, student M)*

*No, that is to say, I feel a bit proud of the fact that I am now receiving a different education than other children receiving public education. And I believe that IB education is now much better than cramming by focusing on the process and nurturing practical problem-solving skills. (MYP, student P)*

Teachers also acknowledged the advantages of the connection between what students learned from the IB programmes and real-life experiences.

*Looking back on my own school days, performance assessments mainly involved memorization or similar tasks. However, for these students [IB students], rather than just memorization, it's more beneficial that they can now explore how the knowledge they've acquired is actually applied in society. (MYP, teacher KS)*

*Especially through activities like inquiry presentations, questioning, and encouraging students to reflect, or even through organizing things like charts to summarize what they've learned and develop concepts, it's great that these aspects are now more mandatory. This way, students are compelled to not only organize their studies but also apply the concepts they've learned to real-life situations. (PYP, teacher KM)*

Also, IB students generally felt that their learning was helpful in areas other than the college entrance exam, for example, through developed social skills, empathy, and self-management.

*Because they place relative importance on discussion and communication with other students, they end up going out into society and finding jobs. Then, I think we can build better relationships with other people. (PYP, student E)*

*Like I said earlier, social skills, empathy, self-management, things like that (I think it's good). (PYP, student J)*

*I also think that in general, other schools are cram-based education, but at our IB school, there is a lot of discussion-style education, and then there are a lot of classes where the teacher asks questions to induce answers rather than explaining something. In that respect, I think it was good to have the feeling that it was something I could remember better than*

*anything else, and that it would be knowledge I could use when I went out into society. (MYP, student K)*

*And as my friend said earlier, I think that communication is really important, so I think the curriculum I'm currently taking is valuable enough to help me demonstrate my skills when I go out into society later. (DP, student L)*

**Good Friendship and Mutual Growth:** Because IB students commonly participate in many collaborative activities with their friends, they felt that their peer relationships were becoming smoother and that they were growing together through the process of exchanging feedback with their friends.

*I think it's good because I feel like my relationships with my friends have gotten better because I've been collaborating with them. (PYP, student U)*

*What's a little different for me is that when I engage in discussion activities, I randomly select seats, and now I end up talking and sharing opinions with friends I've never had a chance to talk to or with friends I've never really had any contact with. In that process, I think my horizons have broadened, and I've made a lot of different friends, and the overall atmosphere has been quite lively. I get to give and receive feedback with my friends, that kind of cooperation, and the bonds between friends, so I guess I'm stronger than at other schools. (MYP, student K)*

*However, in my friend's experience, I did not want my friends to perceive each other as beings who could cooperate and help each other like our friends, but as targets of some danger and competitors that needed to be eliminated, so I made a lot of effort, but in the end, I was a friend like that. And I've heard other friends say that it was very painful to see people looking at them like that, so just by doing a lot of activities like IB and doing a lot of team play, it's like a community like our school. A good community atmosphere is not being formed. "I don't know what kind of characteristics we have as an IB, but I thought that the fact that this kind of good community atmosphere was formed was a bit of an advantage for the IB. (DP, student M)*

*The good thing is that IB is an absolute assessment. I would like to tell you about our growth. In fact, since it was a relative assessment in the first year, there was a lot of competition between students, so there was a strong tendency not to share each other's results. I think we continued that trend until the first semester of our second year and the beginning of the second semester. However, at some point, since it is an absolute assessment, we begin to acquire the concept of growing together by sharing results and providing feedback, and I think the biggest advantage of IB is that we*

*mutually develop in that respect. I feel like I wish I had realized this sooner.  
(DP, student B)*

Teachers and principals also observed that students were more inclined to work together rather than compete with each other.

*In IB schools, there seems to be a common understanding that there is less stress related to daily life guidance. From what I've seen, and this is just my opinion, not encouraging competition could be the biggest factor. Moreover, the schools use criteria-based assessment methods, encourage cooperation among students, and unlike regular schools where students keep their notes to themselves, here they often share and study together.  
(DP, PS-T1)*

*Sometimes the kids say things like this: 'Teacher, it's more comfortable in high school than middle school even there's more to learn, studying gets harder, and it's tough, but it feels comfortable.' 'Why is that?' I asked, and they said that until middle school, when it came to exams, it was a situation where friends competed with each other, even close friends had to watch each other. Then, when the exam scores came out, they divided into grades based on the scores. But in high school, it's changed to criteria-based assessment. So, there's no need to compete with friends anymore, and they prepare for exams together. They share materials and form such relationships, so even though it's tough, they feel comfortable. It creates emotional comfort for the kids, restores relationships, and makes them cooperate with each other again. I think the school itself should be a comfortable space. In fact, I think this starting point came from the change in the exam system. When norm-based assessment changed to criteria-based assessment, and then when optional questions started to include more essay-type formats in the assessment... With these elements, it feels like learning has been released a bit from situations where kids compete with and watch each other and experience stress... The initial purpose of introducing IB was innovation in assessment and evaluation. We wanted to change the exams so that the classes would change. But we only thought about the change in classes until the evaluation changed. Ultimately, it seems like the kids' lives are changing. With that change, conditions are created for the school culture to change. (DP Principal D)*

**Students Enjoy a Happy School Life:** Parents commonly reported that their children were happy to go to school and they now reflected on their school life as joyful. This satisfaction was an important factor in parents' appreciation of the value of the IB programmes.

*Parent Y: Until the first grade, my child was saying, 'I'm happy, right?' and was very happy to go to school. As soon as they wake up, they're eager to go to school.*

*Parent D: I don't think it goes to that extent, but as they reach 9th grade, hearing stories from older students and aunts, they might start to worry a lot. But for now, they're more focused on having fun and playing with friends rather than thinking 'I need to do something.' So far, it hasn't been like that.*

*Parent Y: But with IB, we are surprised to see our children happily going to school. Many came from Seoul, where such a thing is unimaginable. But seeing their child eagerly attend school upon waking up, many mothers said they're satisfied just with that. (PYP, Parents Y & D)*

*It's not just about what I think, but I was worried OO might not want to go and just going because I wanted them to. But he said even if they had to choose again, he would choose OO high school and the IB education. So, I asked why, and he said he had a very happy high school life for all three years, and it seemed to be because of the IB education. He mentioned that if he had spent all three years solely focused on memorizing for quantitative assessments, he wouldn't have had these thoughts. But because he underwent IB education, he was truly happy. Is it even possible to have such a happy senior year in high school? (DP, Parent Q)*

*The teacher has been saying since the first grade that my child has a tendency towards leadership, creating good opportunities. It's about setting the stage for him to exhibit leadership, like asking him if he wants to try something when he's hesitant. Anyway, by setting the stage, even his initially timid participation gradually made him feel more confident in his leadership. Also, he doesn't compare his life with others. The most important realization is that people are who they are, and feeling happy in the life one is living right now is the most important thing. Yes, that's the best thing, I always say it because I'm a carefree person, but when you think it's because you're carefree, that seems the best. I don't make comparisons, and the best thing for our child now is that he wants to live as he is now, not wanting to become something else or improve, but because he's so happy now, he wants to keep living this way. But it sounds like a wonderful thing to say, doesn't it? Talking about wonderful things. That's what it is. Just being happy every day, that seems the best to me. (MYP, Parent JAM2)*

*Some kind of harmonious atmosphere. – (PYP, student C)*

*If you listen to the friends around you, they all say that IB is okay and they seem to be having a lot of fun at school. It's not just me. (MYP, student K)*

*Because I give opinions and actively participate in class, time passes quickly, and it seems to be fun. (MYP, student O)*

*Teachers said that during National College Entrance Exam time, “classes 1, 2, 3, and 4 are completely dead, and class 5 is also dead, but only class 6 (IB class) is alive”. Only class 6 has a brighter atmosphere, so they don’t look like high school seniors. During the National College Entrance Exam week, we were also preparing for EA. In fact, even though the situation was similar, my class had a more relaxed atmosphere. (DP, student M)*

*yes. (Coming to school) is fun. (PYP, student B)*

*At other schools, kids who don’t want to study might hate it because they go there to study, but at our school, there’s almost no studying anymore and we just talk a lot together and do a lot of fun activities like that, so it seems like the kids just want to come. (PYP, student E)*

Principals also highlighted that after the implementation of the IB programme, students were enjoying school life. These changes were attributed to the increased student agency, which shifted the focus of classes and learning onto the students. Furthermore, it was mentioned that such changes could further foster trust in the Korean school education system.

*Due to the rise of their agency, students find school life enjoyable. Coming to school is fun... They participate more actively in class because it's enjoyable. Instead of me telling the kids what to think, creating an atmosphere where they can freely express themselves, even those who find it difficult to speak up can write their thoughts on stickers and share them. This creates a more open environment where everyone feels free to speak. So, they've become more actively engaged in class. Then, of course, when it comes to planning, guiding the students and teachers, but since most of the content comes from the students' opinions, it's more student-led. They've developed a lot of agency in planning and learning through inquiry. These are the changes in students. Parents now see their children coming home and finding something on their own. Before, it was just forced studying, doing homework, but now they come home and talk about what they learned at school. 'Dad, Mom, today I learned this,' and they take on these roles. So, because their opinions are reflected and they can solve problems the way they think, they like it. That's why trust in school education is growing. (PYP Principal H)*

**Improved Parent-Child Relationships:** Parents noticed that the feedback provided to their children in the IB programmes has improved their communication, creating opportunities to better understand their children and strengthening their relationships. Through the feedback process, parents have also discovered unexpected aspects of their children’s personalities, prompting them to reflect on their own parenting styles. These benefits were even more evident for fathers, as the conventional (e.g., somewhat patriarchal) relationship between fathers and children in South Korea which sometimes makes it difficult for fathers to have candid or deep conversations with their children.

*You don't really know what they're thinking. You might just think they're getting along with their friends, but then you see them engaging with different thoughts that other friends have, and I think that's good .. But we, as parents, don't know because we don't see that content (what they think and talk about). We might have a vague idea of what our child is thinking when they're at home. But when I see what they've written, even as a father, I realize what I think about my child and what they actually think about themselves can be different. So, I think to myself that I need to change my parenting style next time... We often inherit a hierarchical relationship from our fathers, and that still persists to some extent. But through reading their essays, it becomes a chance to better understand their feelings. So, I find the essay feedback particularly valuable. (PYP, Parent D)*

*It definitely helps. Before, when we focused solely on scores, like 'Oh, my child got 100%, they could have gotten one more question right,' it was all about the scores. But now, when they come back from an inquiry activity, and we talk about their thoughts, it changes our conversation. Instead of just saying, 'You're good at studying, you can go to Seoul National University,' based on a perfect score, the conversation shifts. It makes you reconsider your child's desires. I might have wished for them to have a stable career, like a lawyer, but then they say they want to be a fisherman. 'A fisherman?' Through these conversations, I feel like we're learning about aspects of their interests that we never considered before. (PYP, Parent Y)*

*There are many times when I take the notice home and look at it with my parents. Then, although the summative assessment is over, my parents also say that I wish I could change this by doing it like this, I think I did a good job. (PYP, student B)*

*If I take math as an example, I think there is not just one way to solve the problem, and I just liked working with my father every day to find new ways to solve the problem. (PYP, student G)*

**Parents' Satisfaction with School and Local Education Authority:** Parents were highly satisfied with the substantial after-school programmes, and educational materials provided by their children's schools. This satisfaction stemmed not only from the efforts of the schools themselves but also from the financial and policy support provided by the education office to ensure the successful integration of the IB programmes into the public education system.

*As you mentioned, XX Elementary provides the fastest and most feasible information to parents. Despite being a public school, we receive more resources than other schools. As you've seen, our school is equipped with the latest facilities, from student desks to activity programmes. From the beginning, each student has been provided with an individual tablet, allowing for immediate research and sharing of necessary information.*

*The provision of one tablet per student and free English education from the first grade sets us apart and is something we particularly appreciate. (PYP, Parent C)*

*In the city center, like in Jeju City, it's almost all about academies. After school, kids go to academies until 10 pm before heading home. We used to send our kids to taekwondo or English lessons, but things have changed a lot now. Parents from outside the area find it excellent that kids don't need to go to academies because there are many after-school programmes here. In the city center, participating in just one after-school programme is a struggle due to intense competition. But here, the after-school programmes are affordable, allowing children to play in the playground before going home without the need for additional academies. This aspect has been greatly appreciated. (PYP, Parent K)*

**Enhanced Teachers' Assessment Skills:** Teachers stated that their assessment skills improved through the preparation and implementation of their IB classes and lessons. They perceived that they enhanced process-based assessment and systematized evaluation, leading to increased trust from students and parents in the validity and reliability of student assessments.

*I had to put a lot of thought into aligning the assessments, and throughout the process, I couldn't help but analyze what standardized and globally emphasized assessment criteria were. During the application of these criteria, I realized that I had been unaware of many of these aspects while teaching, and I hadn't even considered how essential they were. So, I had many thoughts like, "Oh, I've been teaching without knowing these things," and "These are really necessary." Thus, I reflected a lot on the detailed elements of assessment, and going a bit further, back when I was teaching at a science-focused school, I used to mainly focus on solving problems geared towards the university entrance exam. Of course, I often tried to tie these discussions into life goals and how we could connect them to our lives, but ultimately, I questioned the validity of these assessments. IB, in my opinion, doesn't delve too deeply into things. Of course, it does ask questions that go deep into the IB curriculum, but from my perspective, it doesn't go too far beyond a reasonable level of depth. So, I wondered, "Am I really evaluating this assessment validly?" or "What specific details should be examined when assessing?" Following that, I pondered on how important moderation among teachers is. I think I was able to reflect on and grow from these considerations. (DP, teacher KJ,)*

*Yes, especially now, for example, in the case of internal assessments, when grading reports, it's actually about performance assessments, and when it comes to assignments, there are parts that should not be accepted. So, when these reports are received, they are evaluated on what aspects are viewed positively and negatively. There are criteria provided for that, based on the nature of the science curriculum, as I mentioned earlier.*



*Aspects related to the inherent nature of science, what was done well and what was not, areas that are lacking, these elements serve as assessment criteria. Through these factors, one can evaluate the investigative aspect of science. So, I definitely feel there has been growth in this regard (DP, teacher, LC)*

*I think it is good that the report card is not something that the teacher makes just based on the results, but that the teacher observes all the activities we have done so far and grades the process. (PYP, student A)*

*And it seems like there are a lot of summative assessments that allow us to write down our thoughts rather than just providing a set answer, so the teachers show us something and what various students have written. I feel like I can think like this again, and the scope of my thoughts expands. (MYP, student C)*

*I felt like this was a bit like figuring it out by thinking about it, whereas in traditional schools, you just solve a lot of problems and memorize some concepts and answers. Before I had a problem at school, it was a bit more difficult, so I had to figure out the types and memorize them all, but when I came here, the teacher gave me problems based on what I learned, so I think it was good because I was able to use what I learned to solve the problem. . At my previous school, I kept doing IB with the teacher and explained why the problem was like this and looked it up and thought I should solve the problem this way. But at my previous school, they just explained the concept and the problem was solved like this at the academy. It should have been done separately. (MYP, student C)*

**Teachers' Sense of Professional Growth through Collaboration:** Teachers perceived that they were able to enhance their expertise through the preparation and implementation of IB programmes in their schools. Specifically, they noted that formal and informal professional learning communities were revitalized, providing them with expanded opportunities for professional growth through research. They also reported an improvement in the coherence among curriculum, lessons, assessments, and reporting. Furthermore, their perspectives on teaching and assessment became aligned with the process-based approach emphasized by the IB.

*I can't speak for other schools, but while collaboration between subjects or grades may be encouraged due to coherence, I feel it's somewhat essential for us. Because the IB curriculum spans two years, continuity is crucial. So, communication between teachers of different grades and subjects, as well as interdisciplinary communication, is essential. Especially when it comes to assessments, which often involve essays or discussions, teachers may have different interpretations of assessment criteria. Therefore, the process of aligning these interpretations is necessary. (DP teacher KH,)*

*This is actually beneficial not only for the students but also for the teachers. Initially, when it comes to recording activities in the student life logbook, instead of prioritizing evaluation, we first review past cases of well-documented club activities together. We ask students to share what they've written, one by one, discussing what worked well, what they learned, and what they are curious about. Then, we create hypothetical scenarios for a fictional student and brainstorm what specific life skills abilities are expected from them over the course of the year in club activities. By reflecting on why certain activities were recorded and what expectations were involved, we provide opportunities for students to recall and consider how they would like the club to operate over the year. Ultimately, this process applies to both classroom and extracurricular activities. (DP, teacher KJ)*

*In my experience, it was challenging to work alone. I found it quite difficult to handle everything by myself. Last year, for example, I taught both first-grade classes and collaborated with the math teacher on interdisciplinary learning. Working together felt like a win-win situation, and it was beneficial for both of us. While this may not directly relate to the PBL we did last time, I feel that IB fosters an atmosphere where collaboration is encouraged. There is an emphasis on collaboration not only between different grades but also within subjects and across disciplines. Interdisciplinary learning is also given importance, which I find valuable. (MYP, teacher JM)*

*So, everyone is aware of the same procedures regarding 'how,' and we have a common understanding and use the same terminology. This is incredibly powerful. (MYP Coordinator B)*

*There was already a culture of collaboration among teachers, of course. But this is on a different level, to operate the IBPYP...it's not something one can do alone; there needs to be grade-level collaboration, and further, it's not just resolved within each grade level but spans from Grade 1 to Grade 6... For example, if something is covered in Grade 2 and needs to be revisited in Grade 3 (which wouldn't work), or if something that should have been covered from Grade 3 to Grade 5 is missed, you might assume Grade 3 will cover what was missed from Grade 4, and Grade 4 will cover what was missed from Grade 3, and so on, which could lead to oversights. That's why it's important for us to meet and confirm these aspects with each other. It has become a culture of collaboration, a culture where we can collaborate with each other, and a atmosphere of research. (PYP Principal H)*

**Enhanced Understanding of Teaching Practices:** Teachers noted that they were able to achieve a shared understanding of the mission, vision, and learner profile of their school implementing IB programmes. They also perceived that they provided students with authentic learning experiences closely aligned with the core of their subject matter by offering ample opportunities

for inquiry. Additionally, teachers reported that they gained a better understanding of students' motivation, comprehension, and interests through their active interactions with students.

*In the context of science subjects, particularly in IB, the essential nature of science is highly emphasized. One aspect of this is how it accentuates the investigative elements of science. While there were methods to realize this even before 2015, it could be seen as more of performance assessment. This means that if diplomacy in teaching is about giving teachers a lot of autonomy, then in the case of IB science subjects, there are already guidelines and a systematic approach in place, so teachers can align their teaching accordingly. In terms of feedback or guidance for student experiments or inquiries, personally as a teacher, I see room for improvement in these aspects. (DP teacher L)*

*IB was much more fitting. Because, when teaching the public education curriculum, I feel a bit overwhelmed now. I questioned whether what was coming through was really teaching history, as the questions I pose to teach these kids seem to carry significant weight over the years. But the reason I have to teach them is that even on the college entrance exam, there are questions that differ by a year or two. Right. Looking at such things, I really wonder if this is history, if this isn't, it feels like that, and it's become quite exhausting, and my sense of doubt has increased significantly. But on the other hand, when it comes to IB, even if I teach somewhat similar things in a lecture format, the results are different. What is the most important factor when doing IB? What's the basis? It's like that (DP teacher 3)*

*In my Korean language classes, to be honest, I never explicitly taught students about plagiarism or related issues from a purely Korean language perspective. However, in the IB programme, academic integrity and such policies are highly emphasized, which I think is great. It's emphasized that plagiarism is not allowed, and we can also explain to students why it's important to respect intellectual property rights and maintain honesty in our mother tongue. This way, we can help students understand why learning Korean is important. (MYP, teacher JYJ-K)*

*In my class, if I were to use a medical analogy, it's like diagnosing a patient with certain symptoms and prescribing a certain medication based on that. Then, after reinforcing it with additional treatment, we see progress. It's a scientific and professional approach. And now, it's possible in IB. In my class, we follow the guidebook to focus on core concepts. If the outcomes are not as intended, we can pinpoint the areas that need improvement. There's a shared expertise building up in these aspects. It's not that our teachers lack expertise; it's that they haven't been provided with the environment to become true experts. (MYP Coordinator B)*

**Teachers' Commitment and Caring:** Parents observed that teachers implementing the IB education programmes are providing significant dedication and care to students in all aspects, including educational activities and life guidance. They appreciated the teachers' efforts to solve issues that may arise in essay writing or collaborative processes, and their willingness to actively engage in the proactive one-on-one communication with students aimed at enhancing their understanding and adaptation.

*...(in terms of group assignment) Some students were actively involved, while others completely disengaged. What pleased me was when teachers explained that, despite everyone's participation, group assessments could allow non-contributing students to benefit unjustly, which could be unfair to those who had actively participated. However, the approach taken by teachers last year was to acknowledge the visible efforts of participating students. They would discuss amongst themselves to ascertain the extent of each student's participation. Thus, a different assessment was given to students who did not participate, ensuring that those who did not contribute and those who actively participated were fairly rewarded...This approach resonated with me. It is understood that not every student can participate equally, and differences in participation are inevitable. However, teachers agree that there is a clear distinction between students who try to participate despite limited capabilities and those who do not participate at all. This ensures that the assessment process is fair and acknowledges the efforts of all students. (MYP, Parent N)*

*It was indeed a significant issue at the time, not only in Jeju but also nationally. Given that these students were the first case, there was a certain pressure on the teachers to ensure success. I believe the teachers felt a considerable burden and wanted to give their utmost to the students. They must have worked very hard... The lights in the staff room never seemed to go out, staying on till dawn. It's truly heartbreaking. I feel genuinely sorry for the teachers. (DP, Parent Q)*

*(in traditional high schools) teachers might not even remember the names of all their students. However, through discussions and interactions within this small group setting (in IB), we anticipate a one-on-one engagement that allows for direct queries about moral, ethical, or academic issues. This direct interaction with teachers, where students can ask questions and receive personalized guidance, is the dream system we aspire to achieve. (DP, Parent Q)*

Students also appreciated their teachers' support and caring, which resonates with parents' interview excerpts above.

*I think the teacher is trying to listen more to the students' opinions. In previous schools, the teacher would just explain things and solve problems based on what we had learned, but now the teacher prepares classes with*

*the students' opinions as much as possible and includes a lot of the students' opinions in the process. I could feel it. (MYP, student D)*

*The only big difference between my previous school and when I came here is that my previous school just progressed quickly. So, because they do not provide opportunities to go with children who are not good at it, there is a large gap where the children are left out and only the children who are good at it do better. But this school, like the IB school, takes in students who are not good at anything and progresses a little more slowly, so I think it gives even students who are not good at it a chance to catch up. (MYP, student H)*

The commitment and caring of teachers was also mentioned in interviews with school administrators and coordinators.

*A math teacher says something like this: "If it weren't for IB, I would have just ended up as a teacher solving math problems." While we have national-level education curricula and guidelines from local education offices, and schools design their own curricula, it's difficult for teachers to delve deeply into the curriculum... (But in IB), with a backward design... It's not just about having assessment criteria; to create detailed items called strands, teachers need to constantly brainstorm and discuss. It's now mentally taxing and challenging, but once teachers manage to do it properly, they feel autonomy in their work. That's something only teachers can do, neither vice principals nor principals, it's the expertise unique to teachers... (MYP, Vice Principal B)*

*This is a very demanding educational method for the teachers in the DP... It requires a lot. However, it seems that the difference lies in the energy, time, and how closely I examine each student. As a teacher, it's a programme that requires a lot of effort. Nevertheless, it's worth it. It could be a great opportunity for individual students, not just in high school but also in their future lives after graduation, as those who have experienced this will likely live more confidently in the world. (DP, Coordinator D)*

**Changes in School Culture:** Teachers' experience of the IB made them more supportive of growth-based assessment and process-based assessment. Teachers themselves have also strengthened their commitment to professional development and have been able to build authentic professional learning communities. By virtue of all these improved features of teachers' professional practices, they felt that their school culture has become more student- and learning-centered. In addition, parental education about the IB has increased parents' understanding of the school curriculum, which in turn has helped teachers to build the school as a community.

*IB is powerful in terms of their content, but they are also good at turning the content into a good format. When teachers get together, we can't help but discuss our curriculum content to reach the curriculum goal. Similarly, when we do the assessment, we can't help but get together and talk about how to score this assessment, and we can't have tea time... We can't help*

*but work towards this in this meeting, so this is powerful. (MYP teacher KY,)*

These changes were evident across PYP, MYP, and DP schools, but were more pronounced in MYP and DP schools, where there had traditionally been clear boundaries between teachers regarding teaching, assessment, and student guidance based on subject areas.

*In fact, teacher meetings are very important in schools, but when we think of meetings we usually think of delivering things, so I thought it would be nice if real meetings (about teaching and assessment) were institutionalized and established and became part of the school culture. I think it would be nice if that could happen. What I like about IB is... I think it's really important to create a culture where we meet once a week and have some real meetings, like planning students' careers together and things like that, and I think the IB helps a lot with that. (DP teacher, EJ)*

In relation to school-based PLCs, not all participating schools were active on PLCs in an authentic sense from the beginning. The depth of teachers' practice of PLCs in the early years of IB programme implementation was strongly influenced by the culture of the school community that had previously been established in each of the schools: in schools where PLCs had been actively practiced prior to the introduction of the IB, authentic discussions about teaching and assessment took place in the PLCs from the very beginning of IB implementation. On the other hand, in the case of schools where PLCs had rarely been practiced before the introduction of IB, there was little more than administrative talk in the PLCs (e.g. how to distribute IB-related tasks among teachers). However, even in the latter schools, as they became more deeply and continuously involved in their IB programme's implementation, their PLCs gradually began to focus more on students, teaching and assessment.

### **3.5. Challenges and Issues**

The following themes emerged from our qualitative data analysis.

- **Lack of basic academic skills and knowledge in IB students**
- **Double disadvantages and dual burden for certain student groups**
- **Alignment of student traits with the requirements and expectations of the IB**
- **Learning challenges from students' perspectives**
- **Parents' limited understanding of IB assessment**
- **Limitations in IB training, guidelines, and materials**
- **Ambiguity in the role of coordinators**
- **IB being perceived as Western-centric**
- **Difficulty in forming shared understanding of the IB**
- **Uncertainty, mismatch, and disadvantage in Korean university admission**
- **Challenges in implementing IB programmes within the National Curriculum**
- **Lack of IB elective subjects**
- **Mismatch or disconnect with the Korean administrative system**

**Lack of Basic Academic Skills and Knowledge:** Some parents perceived a deficiency in basic academic skills and knowledge among their children enrolled in the IB programmes. Because they think that IB education focuses on competencies such as high-order thinking skills and open-

mindedness, they were concerned about the lack of students' acquisition of basic knowledge (e.g., factual knowledge or explicit knowledge) and academic skills (e.g., basic literacy, numeracy) in the learning process. Also, although some parents viewed that inquiry-based, activity-based learning is in and of itself, there should also be some direct transmission of basic knowledge (e.g., dictation) especially for academically less strong students, because they believed that students have very little time to fill in their basic knowledge gaps when following the IB programme. This concern about basic academic skills and knowledge appears to lead to anxiety, potentially resulting in increased participation in private supplementary tutoring.

*Dictation has been removed, hasn't it? While it was removed, I was quite anxious about spelling mistakes, especially since my eldest had dictation up until the third grade. The kids, especially because they are in lower grades, both my eldest and my second child, started the second grade and then encountered the IB. In the case of my third child, who started with the IB, the absence of dictation might be why there's such anxiety about spelling and such. Seeing this, I felt that they should do at least a little more, which led me to send my child to an academy earlier. While others sent their children in grades five or six, I thought maybe my youngest should go a bit earlier. There can be variations among children, but that was the case for me, especially since I couldn't pay much attention at home due to being busier. (PYP, Parent Y)*

*In my case, IB education demands adherence to the national education curriculum standards, but my concern is that it might be difficult to match the national level or curriculum standards, honestly provided by the Ministry of Education. 'Teach this, please.' And while doing the IB courses, whether the knowledge or skills or attitudes corresponding to the national education curriculum will be covered, I think skills and attitudes might be, but I wonder if there might be difficulties in acquiring knowledge compared to other regular schools. There seems to be a challenging aspect in terms of time, especially when trying to collaborate. So, I worry that the knowledge corresponding to the national curriculum standards might not be fully covered in IB classes. This worry made me resort to internet resources like Megastudy or Mbest (i.e., private tutoring companies) until recently, though I'm not using them now. (Jeju, MYP, Parent R)*

In addition, PYP, MYP, and DP students commonly felt that their IB programme was lacking in terms of knowledge transfer for subjects such as mathematics or areas outside the scope of the research topic.

*Now that I am only exploring one topic, I am starting to feel that other subjects that are not included in other UOIs are a bit lacking. I think it was a bit difficult trying to fill it again. (PYP, student D)*

*In high school, basically memorizing things and things like that actually become the basis for research and things like that. However, for us, it is not important to acquire certain concepts, but rather to apply them to other*

*things, such as mathematics, and other things, such as applying mathematics in everyday life. "As the application part is treated as more important, there is not enough time to develop basic capabilities such as problem solving, so I think the foundation is lacking. (DP, student M)*

*I agree, but the IB curriculum especially has a lot of personal projects. I think all subjects are just a way to promote a single individual's interests. However, in contrast, the Korean curriculum is one in which everyone learns from the same exact textbook. As a result, there seems to be a difference in that there seems to be a strong tendency to cover everything broadly and shallowly rather than to delve deeply into one's personal interests, and that is why the IB learner's ideal of a learner is emphasized as a person with a wealth of knowledge. To be honest, it is difficult for the IB curriculum to cover everything in itself, and I think continuing to study separately while supporting the individual's capabilities creates a knowledgeable person. So, I think those who have a strong nature of narrow and deep exploration lack this kind of basic knowledge. (DP, student H)*

Interestingly, even some IB coordinators commented on this issue in a similar vein. For example, the MYP coordinator indicated that there are on-going issues with MYP students' "lack of foundational skills and knowledge" in subjects like math and English, which are the most important subjects in the national university entrance exam.<sup>10</sup>

*We were really concerned about this. Among these students, there are likely many who will take the national university entrance exam, so we wondered if it's appropriate for us to teach in this (IB) way. Therefore, when we try to comprehensively assess and meet all the requirements of IB, there are areas we can't cover and have to skip, or areas that we need to address briefly or allow students to explore on their own. So, we were very worried about those aspects...basic practice and calculations aren't done well. For example, in math exams, we have a standardized test (in accordance with the national curriculum). When they take the standardized test, their scores are very low. They are so low that we had to intensify the remaining studies. When students don't grasp the basic concepts, teachers tend to provide a lot of supplementary classes. In subjects like English, students seem to be fluent in speaking, but their accuracy is lacking... (MYP Coordinator E)*

Lastly, to be fair, we wish to note the interview quote from one PYP teacher. He commented on the perception that the IB leads students to lower basic knowledge and skills, which he thinks is a misconception; he stressed that IB education actually helps students to develop their basic

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<sup>10</sup> Because of such a mismatch, another MYP coordinator expressed her concern about students' dissatisfaction, regarding exams required for the national curriculum: "So, considering the university entrance exam...from the students' perspective, there is anxiety" (MYP Coordinator B).



knowledge and skills

*We've done research within our school, and what we've found is that it's really a misconception to think that IB is not effective in developing students' basic knowledge and skills... For the last three years, we've been cross-checking the content of the Basic Knowledge and Skills Assessment with the content embedded in the units that we've developed in our school, and we've found that the content covered in the Basic Knowledge and Skills Assessment is covered in our units, it's been taught in the classroom, and when we look at the actual scores of the students' performance, we've found that our students' have very little problem with their basic knowledge and skills. (PYP, teacher JW)*

At the same time, however, given that the school he teaches at is one of the most prestigious primary schools that attracts some of the best students in the region, it might be worth reconsidering to what extent his claims can be generalized.

**Double Disadvantages and Dual Burden for Certain Student Groups:** Teachers perceived that students in the IB DP are overwhelmed by the volume, scope, and duration of the summative assessments, and that they face the dual burden of preparing for the IB exams and Korean SATs simultaneously. In particular, teachers found it paradoxical that DP students were required to perform well on the Korean SATs to demonstrate the effectiveness of the IB, even though they experienced significant disadvantages in the current system.

*Some of my students who were focusing on IB until their sophomore year (i.e., first year of the DP) came to realize that there are not many universities they can go to without the SAT. So whether they go out and study, study by themselves, or watch EBS,<sup>11</sup> they start studying for the SAT again. I wonder if this is really desirable. (DP teacher HW,)*

*It's so hard, it's still very hard, and I wish we just did only the IB because the current IB programme and related policies barely go hand in hand with the domestic entrance examination system... There was a lot of restrictions on their entrance examination... because IB subjects were organized in the second and third year as career choice subjects... But this is what we said earlier, it started as a policy, so in a way, they pay too much attention to the entrance examination results. (DP teacher 3,)*

*What happened is that now all the science subjects are offered as HL courses, and in the first year, there are only two science subjects available, Chemistry and Biology. So, our school students are in a situation where they must take History HL as a mandatory requirement for HL credits. However, once students actually experience it, they find History HL too difficult. Moreover, it's widely known that IB groups are notorious for*

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<sup>11</sup> EBS refers to the Educational Broadcasting System in South Korea. It is a public broadcasting service that provides various educational contents, including online lectures for the Korean SATs.

*being challenging, especially in subjects like History. Yet, many schools have set up structures where students have no choice but to take these challenging subjects. (DP, teacher KM)*

In terms of dual burden, many IB students particularly in the MYP reported that it is difficult to have to take the final exam and summative assessment separately, and the assessment period overlapped, increasing preparation time. This issue stems from the situation that MYP teachers should implement the programme within the national curriculum and assessment.

*There are more tests to be conducted separately for the IB assessment content and the national curriculum assessment content than I expected. I think it's difficult. (MYP, student D)*

*It's very (difficult). I am taking a performance assessment a week before the actual exam. That's right, I keep taking performance assessments even the day before the exam. (MYP, student K)*

*But what's really difficult is that the summative and the final are so close, and sometimes their scopes overlap, but sometimes they don't. Then, you just have to keep reviewing the course for a year, which is very difficult. During the summative season, there are actually three summative assessments a day, but really, I think that part is very difficult. "It's all overlapping, and the gaps are so tight, so that's really the point. (MYP, student M)*

Lastly, although it was the perception of a few MYP teachers, they reported that IB assessments may favor upper middle level female students who are strong in written and verbal skills, are highly motivated, and have strong time management skills, while disadvantaging top-level, bottom-level, or underachieving male students.

*Actually, as I'm now teaching Grade 9, I often hear students saying that it's somewhat challenging to excel academically in our school. In terms of overall assessments, while other schools might finish a topic in one session, here we tend to extend it over several sessions. Consequently, meticulous female students manage well, but some male students struggle to keep track. They might misplace their papers after one session, and this poses a bit of a challenge (MYP, teacher KS)*

**Alignment of student traits with the requirements and expectations of the IB:** Resonating with the teacher interview excerpt noted above, parents commonly felt that the IB was an effective approach to education, depending on the student's personality or characteristics, implying that there are certain individual characteristics that are better suited for the IB programme. Specifically, they mentioned that extroverted students who are willing to do presentations and in self-expression (i.e., communication skills about expressing his/her own opinions), and female students are more apt for the IB programme. Furthermore, they pointed out that students accustomed to the traditional style of learning prevalent in the national

curriculum might find it difficult to work within the IB programme, given that different student abilities are required.

*However, the concern I had earlier, when we had a meeting here last year, I also mentioned this to the principal of OO High School. The problem is that we only have OO High School that offers the IB programme. Not all students fit the IB, and from what I see, there are definitely students who absolutely cannot do it. But they have no choice. If they go to school from their home, they must do the IB. So, in this region, especially for those going to boarding schools and then moving to Jeju City, that's definitely an issue. (MYP, Parent O)*

At the same time, however, some parents also believed that every student can eventually fit with IB education while acknowledging the differences in students' personality and characteristics.

*The basic curriculum itself proceeds in such a way, so the part that satisfies me, that gives me peace of mind, is really what I thought it would be, so I am quite satisfied. But then again, there's this thing. So, I thought my child, who was accustomed to studying in an environment of presentations and free discussions, would adapt quite well to rote and memorization-based study but she struggled because the logic didn't match. Meanwhile, students who were used to rote learning had to come here and adapt to thinking and presenting... But looking back on these children, regardless of university or such, if they continue to study step by step like this, their capability will grow tremendously. We do have such expectations for the children. (DP, Parent Q)*

**Learning Challenges from Students' Perspective:** IB students reported a range of challenges in the process of IB education, including difficulties with writing (MYP), difficulties with understanding words and selecting research topics (PYP), burden with presentations (PYP), difficulties with group activities (common), and difficulties with data collection (DP). In particular, PYP and MYP students felt that the amount of learning was greater than that of regular schools.

*So, the IB research topic was too abstract at first, and when we tried to do it in this way, we couldn't reach a consensus, and it was very difficult for the kids because the topic was too difficult. (PYP, student B)*

*The most difficult thing is to find a direction on how to solve this task on our own. In particular, there are many cases where lower grades are still lacking in thinking skills and do not know how to solve the problem without guidance from the teacher. So, I think we need to improve on that. (PYP, student J)*

*I like giving presentations, but now that IB puts a bit of emphasis on giving presentations, my friends who don't like giving presentations might feel a bit pressured. (PYP, student L)*

*There are many things I need to cooperate with the group in answering questions about the difficulties ahead. Conflicts arise there, and there were times when the conflicts were very large. "I think I was under a lot of stress at that time. (PYP, student P)*

*When I first transferred to the school, the summative assessment in the first semester was very difficult. At school, writing was all about asking questions in a short answer format, but since I wasn't used to writing, I think it was quite difficult. For example, if hazardous drugs are released from the factory, they ask for specific things such as writing down the names of the hazardous drugs, so I have to memorize these things. So, it's now one period, so it's about 45 minutes, but now there's a minimum character limit, and you have to fill it with 1,000 characters, so it's a bit difficult to write. (MYP, student C)*

*I felt some serious shortcomings. This is a mixture of the Korean curriculum and the IB curriculum. So, the amount of work that needs to be done is too much compared to a regular school. (MYP, student D)*

*There were quite a lot of frequent conflicts in our class, so it might be a bit of a negative factor in this atmosphere, but if everyone actively displays their colors like this, there is a bit of a disadvantage in that aspect. (DP, student C)*

*I mainly experienced two difficulties. First, as my friends said earlier, this content is at the level of what you learn in college. So, there are contents that are not taught in the general curriculum, and in those cases, there are a lot of explanation materials tailored to the college student level. So, at my level as a high school student, I had to study a lot more in order to understand exactly the level required by IB. In other words, the first problem was the difficulty in finding materials. (DP, student H)*

**Parents' Limited Understanding of IB Assessment:** Parents appeared to have difficulties in understanding IB's assessment methods. As the IB employs a different assessment system (e.g., more process-oriented, performance-based, criteria-reference assessments) than the Korean national curriculum. More specifically, the IB uses a unique assessment framework (e.g., grade from 1-8 for all tasks in the MYP) where teachers conduct criteria-referenced assessments, contrasting with the relative grading common in Korea's secondary education assessments. Furthermore, the IB often involves subjective essay-type assessments based on the teacher's interpretation of the marking criteria, which parents sometimes find hard to accept. The

unfamiliar and challenging nature of these assessments seems to contribute to a negative perception of the assessment process.

*I've actually thought that these assessments might be wrong. So, having an older child, what I've felt from both sides is, maybe we haven't yet clearly defined our standards for assessment. Teachers and students, being accustomed to the previous assessment methods, expect scores to be clearly defined, and not absolute but relative assessments, inadvertently dividing teams and such, still drenched in that unconsciousness, wondering if we're reverting to a simplistic scoring method. (PYP, Parent J)*

*In the case of OO, not just OO but many students felt in their first year that, since most of it here is now performance assessments in the form of investigative reports, until middle school, the students were not used to such assessment methods, and due to the assessment methods, the children were quite confused. (DP, Parent Q)*

*Since the children still can't do well, what I recently mentioned to the principal is that the pre-DP course should really be more solid, a bit more of a warming-up process rather than being haphazard, feeling like forcing the children to do something they can't do yet. They should be gradually taught this process, this way of doing things, so they can properly enter the IB course from the second year, but it felt like just throwing it at the children. (DP, Parent Q)*

**Limitations in IB Training, Guidelines, and Materials:** Teachers commented on English language challenges as IB training, guidelines, and course materials, were mostly delivered in English, and they struggled to understand the extensive terminology used by the IB. In addition, they perceived that there was a lack of sharing of experiences and resources among Korean IB schools, which added to operational challenges.

*There are things that you can share with each other, which helps us better understand what we are doing like, "Oh, yeah, I see." But there's no institutionalization or space to share that at all. IB lecturers usually say that we can check out useful resources at the IBO webpage, but there's absolutely nothing there. There's nothing there. (MYP teacher JE, Daegu)*

*There's hardly anybody who can understand materials created in English except for the English teacher... There are some programmes where there is a teacher who translates into Korean, but in many cases, it's not easy for non-English teachers to understand those materials. They have to translate first when they're preparing for class, so the non-English teachers can't leave work almost every night, because they have to teach tomorrow right away, but everything is (written) in English, so they always say that it would be really nice to have all the translations, especially the social studies and science teachers. (DP teacher 1, Jeju)*

In line with the issue of the language barrier noted above, all of the coordinators expressed a need for more tailored support from the IBO in terms of documentation and workshops. They pointed out the poor quality of translated documents in Korean by the IBO and local educational authorities, even though the local educational authorities paid substantial money for the translation work, which appears not to meet the quality expected by most teachers. In relation to this issue, another constantly recurring comment was the lack of the relevance of workshop content and workshop leaders to the Korean context.

*Although having translated documents is better than not having them at all, the readability is severely lacking. So, in my case, I just read the English documents and discuss them with the teachers. That's how we proceed. Actually, for us, the documents were translated informally by the Jeju Education Office. Nonetheless, we compiled them into books and distributed them to the teachers. (PYP Coordinator F)*

*It would be great if there could be some quality management, and we need workshops, but sometimes, wouldn't it be better if a workshop leader who speaks Korean fluently could come? This is why sometimes, when we receive workshops, the costs borne by the school are over 10 million KRW (approximately 8,000 USD). So, at times, it feels a bit uncomfortable (due to language issues and lack of workshop leaders' knowledge about the Korean context). Therefore, to ensure quality in the programme, enhancing teachers' expertise is crucial. Hence, some guidance or improvement in the quality of workshops is needed. (MYP Coordinator E)*

*In international schools, it's much easier for teachers to design IB unit plans, for example, because they've been doing it for a long time... In addition, in international schools, they have already established a good setting for designing those unit plans, so the workshop instructors usually say that any curriculum (i.e., the national curriculum) can be easily integrated into IB... It's hard to reconstruct the national curriculum and design unit plans based on such guidelines and workshops without any real experience of implementing IB in a similar setting to ours. (DP teacher JS)*

**Ambiguity in the Role of Coordinators:** There was ambiguity around the role of coordinators in terms of the responsibility and the authority given to them. Given the presence of grey areas in their role, all the coordinators expressed their concern about the concentration of all IB-related tasks assigned to a single coordinator, even though the nature of some of the tasks should be based on school members' collaboration.

*...there seems to be some ambiguity about the role of coordinators in Korea. ... in practice, instead of coordinators coordinating the entire school and spreading information horizontally, it is more vertical, where they receive instructions and disseminate them downwards, explaining and persuading,*

*and if education is needed, conducting PD sessions. There is a tendency for such roles to be somewhat emphasized. Actually, even the education office is aware of this, and when our coordinators gathered in a discussion group last time, we talked about the extent of the coordinators' speaking rights and authority within the school. (PYP Coordinator C)*

*...IB coordinators really need to be well-versed in each subject and assessment. They should have the expertise to solve any assessment-related issues or difficulties that teachers may have. Since I haven't gained that expertise yet, I sometimes feel a bit frustrated... There's really a lot of work. The tasks of an IB school should be shared among all teachers in the IB school to truly make it an IB school. But for now, because it's a stage where teachers are somewhat reluctant, as soon as it's associated with IB, it becomes solely my responsibility. Even if it's character education, if it's linked to IB learning assets, it becomes my responsibility. So, I've been talking a lot to administrators about considering these aspects. (MYP Coordinator E)*

*Looking at the duties and roles of the coordinator, now they also have the role of a vice principal and a principal. I now see myself in the role of a master teacher as well. But now, with the position of IB coordinator coming into Korean schools and being applied, it eventually becomes a position within the managerial hierarchy. So, when the coordinator discusses or collaborates with teachers, it may be difficult to provide as much specialized feedback in the class as a master teacher would. Or, as the administrator mentioned, it can also be challenging to deliver weighty messages, given this ambiguous position within the departmental hierarchy... (MYP Coordinator G)*

**IB Being Perceived as Western-Centric:** Although this was not a major theme, several teachers raised questions whether IB education is Western-centric in terms of both learning process and content.

*It's a bit challenging for teachers when it comes to creating a coherent Programme of Inquiry (POI) integrating interdisciplinary themes. This is because the descriptors present in the POI are quite Western-centric. Terms like migration, immigration, homes & journeys, etc., don't align well with our country's context. Consequently, there is a sense of unfamiliarity with such content, and there's often a question of what content to incorporate. However, as teachers gain experience and deepen their understanding of interdisciplinary themes and the curriculum, the gap gradually narrows. (PYP Coordinator F)*

*So, when we were translating textbooks, there were conflicts arising from interpretations. While some saw it as expansion, others viewed it as*

*invasion. In fact, such conflicts emerged from both sides. It was about avoiding the repetition of history, such as the perspective that figures like Hitler and Mussolini should not be glorified. There were some clashes due to these differences.... Choosing the period of the period of Korean history characterized by significant industrialization and mode was a commendable decision. However, when it comes to selecting narratives or consciousness shifts, while it's great to make such choices, there are differences in perspective. Some view it from the angle of wars, while others, like us, thoroughly analyze it from the perspective of colonization and mobilization for war. It's possible to avoid inserting such temporal factors, but it requires time. Personally, I believe time constraints, especially when preparing for external evaluations, make it challenging. Nevertheless, when history teachers gather, we often discuss such topics (DP, teacher PJ)*

**Difficulty in Forming a Shared Understanding of the IB:** Some teachers shared their challenging experiences regarding translating IB theory into practice and collaborating with teachers who are opposed to IB.

*So, from my perspective, these individuals are just people who have studied a lot, and I went to an international school for about a week and also visited our school, but in the actual process of translating theories into reality, there seemed to be a lot of discrepancies. What's different from the existing one? It's supposed to be based on concepts, but then what's different? Thinking about how this differs from studying in concept-based textbooks or theoretical discussions, and how we used to do things, was the most difficult part of finding direction amidst these deliberations. (PYP Teacher KM,)*

*Well, because I was new, I was really enthusiastic. I had studied educational theory diligently while preparing for my certification, and I was in that phase where I was brimming with dreams. So, when I encountered this, I found it really interesting. I tried this and that, exploring different methods. However, hearing some complaints or rather, feeling some dissatisfaction from fellow teachers around me was a bit tough. I didn't quite see it the same way, but I realized that others did, and I wondered if I could persuade them otherwise. Also, because, in reality, there isn't that big of a difference in teaching English. (MYP teacher, KK)*

*There are some people who don't feel that way [necessity of IB Programme], and some who feel uncomfortable, so if [that sentiment] doesn't align between subjects, it's bound to fail. There have been times when there were real conflicts, and I know that conflicts have intensified at times. Despite all this, I'm trying to find a way to navigate through. Fortunately, this year, I've been really lucky to meet three people with*



*whom I have a great synergy, and that has worked out well. (DP teacher, PS 1)*

The principal and coordinators also mentioned difficulties in IB programme implementation. These challenges generally arose due to a lack of consensus among teachers and parents. This was attributed to resistance to change, concerns about the unfamiliarity of adopting a foreign system, and the burden of increased workload. These challenges and difficulties were more common in schools implementing an "IB-for-All" model, where all teachers and students are required to participate in the IB programmes. To address these challenges, these schools engaged in a process of explaining and persuading stakeholders about the valuable elements of implementing the IB programme.

*Teachers are so accustomed to the academic schedule, you know... like, in March, we have to hold an entrance ceremony... and in May, we plan for experiential learning, and then there are midterms and finals around May and July, when we issue report cards. But these are strictly administrative tasks that need to be handled by event planning and lower-level organizations under the Ministry of Education... When you look closely, there's no mention of teaching or assessment/evaluation. But teachers are so immersed in these tasks. But when it comes to discussing actual teaching and assessment/evaluation, they don't understand why it's necessary. So, they didn't used to do it... That's why I really wondered if this would work. (MYP Coordinator B)*

*Despite having about 10 years of experience as a principal in this area, when the teachers questioned why they needed to do this, like now that we have the national curriculum-instruction-evaluation-record system and all, it was very challenging for him in terms of sharing common philosophies and sharing these aspects. (MYP Vice Principal B)*

*In private schools, there's typically an ideology associated with the foundation... so when you join the school, you align with that ideology. But in public schools, it's different. You have a group of teachers who have no connection to IB whatsoever... when you propose, "Let's do IB education," they might understand... but you still have to operate a separate programme alongside the national curriculum. With the workload and the rumors that teachers will have to work a lot more, there's resistance. So, while we know it's a good thing, it's tough to take action because it requires a lot of effort... and, having to pay such expensive fees to the IBO... persuading them one by one was very challenging. (PYP Principal C)*

*We put a lot of effort into explaining to students and parents why this was necessary, as education isn't solely accomplished by teachers. We held explanatory sessions for parents and, after receiving training, teachers returned to conduct what we call "sampling classes," where certain teaching methods and learning characteristics of the IB could be demonstrated. These sessions lasted around 100 to 120 minutes on*

*Saturday mornings, targeting nearby students or middle school seniors. Additionally, while conducting these classes, the coordinator gathered parents to explain why IB was needed, similar to an admissions briefing, aiming to enhance awareness and understanding. It was quite a laborious effort to improve awareness and perception. (DP Coordinator A)*

**Uncertainty, Mismatch, and Disadvantage in Korean University Admission:** We encountered many interview quotes, highlighting challenges and issues faced by students and parents regarding the national exam for university entrance in relation to DP implementation in South Korea. All DP coordinators interviewed emphasized the need for IB schools or local education authorities to present a policy roadmap for DP students to gain entry to Korean universities, given the limited places currently available for DP students applying for university admissions through the current university entrance system. In addition, some DP coordinators stated that at this stage all they can do is to explain and promote the IB's progressive pedagogical features in terms of philosophy and assessment, for example, since there is a lack of track record data about DP students' university admission to Korean universities.

*For students, especially parents, this is an unavoidable issue regarding university entrance exams. Therefore, in terms of university admissions, we need to present a vision. However, since we still lack accumulated data in the university admissions process, when we talk about what happens after this, how universities will be, we actually cannot provide specific quantitative data to parents or students. Therefore, what we can really do is, philosophically speaking, explain what the IB curriculum is and what the differences are, and if they think it suits their child or student, then they should participate. We can only speak in this direction... (DP Coordinator A).*

Teachers and principals noted some major disadvantages for IB students applying for Korean university admission, as presented in the following quotes:

*I felt so sorry. Why didn't we prepare more for this [KSAT]? If we had just paid a little more attention to the college entrance exam, couldn't we have at least met the minimum requirements? This regret is becoming more apparent these days, and I think there will be a time when opinions are shared during our daily educational activity assessments. So, one student prepared for the college entrance exam alone, and I heard that their results are anticipated, even though they weren't confident due to their low grades. Despite being in waiting list position number one, they probably didn't think they would make it because of their poor grades, but hearing about how they did their best to prepare for the college entrance exam, and the anticipation of good results, I was struck. Although our school is not specialized, we still need to explore many options. (DP, teacher PST-1)*

*We also faced difficulties because the true goal of IB education was not just admission to university, but rather helping students realize their dreams by entering university and pursuing their desired fields of study. Teaching with*

*conflicting goals made it very challenging (DP, teacher KH)*

*IB students engage in a tremendous amount of activities. We can't capture all of that in the student profile. Due to the 500-character limit, we can't even fit in activities like CAS, which has a 700-character limit. And as for predicted scores, we're currently unable to use them anywhere, so it's quite challenging to do IB in Korea. (DP Principal G)*

Parents also perceived a significant disadvantage for IB students in the Korean university admission process, which may be one of the most critical issues in the context of introducing the IB en masse into South Korea's public education system. They reported that the current mismatch between the national for the university entrance exam system and IB DP evaluation limits the use of IB assessment results for Korean university admissions. Additionally, the inability to compare IB results with those from the regular curriculum creates significant anxiety among parents. Some parents were deeply concerned that this disadvantage in the university admission system could lead to anxiety, causing them to reconsider sending their children to DP schools, or compelling them to engage extensively in private supplementary tutoring.

*So, if you were to ask me directly whether I would continue to pursue this education for my child, considering the evaluation or my child's future is uncertain, I think I couldn't answer. I mean, I can't just say I will continue with IB because all parents want their children to live comfortably and pursue what they desire. But if it's uncertain, I don't think I, as a parent currently raising a child and considering university admissions, could continue with it. (PYP, Parent P)*

*Living life, it might be helpful, but in our country, we can't help it. Since the entrance exam is considered the most critical aspect, I wish there would be exact help regarding that, about the evaluation. If we had been evaluated in high school through IB education, and if it could be equated to the same level as regular high school students' internal grades, that would be reassuring. But it's not about whether 100 students go to Seoul National University to determine if it's good or bad; it's about doing as much as they can, irrespective of whether the children study well or not. Wouldn't it be reassuring if they could have the same form of internal grades as their peers? It's still sending them off with anxiety (PYP, Parent K)*

*Parent Y: The anxiety has somewhat promoted more private education. So, since we haven't decided on a high school yet, there's the possibility of going either way with IB, and hence, tutoring or other forms of private education have increased compared to before. (PYP, Parent Y)*

*Therefore, even though I chose this educational programme keeping overseas universities in mind, my child doesn't want to go to an overseas university. When asked about the preferred university, my child mentions*

*either a medical school or a place to learn cooking. However, from what I've researched, medical universities seem significantly disadvantaged for IB students in the admission process. You know, from the second year of high school, grades are calculated as ABC, but in our country, for the regular high school academic track, it's a 9-grade system. So, unfortunately, it seems like we won't be choosing OO High. (MYP, Parent R)*

Both PYP and MYP students commonly felt disadvantaged in relation to the current Korean university entrance application, and because of this, they felt anxiety and concerns about whether to advance to an upper level IB school.

*Also, when it comes to IB, the college entrance process in Korea requires you to study really hard, but IB doesn't allow you to do that, so I'm worried that I'll fall behind when I go to middle school. (PYP, student C)*

*It's good to do (IB), but if I can't go to an IB high school now, I might have problems getting into college, so I think IB schools will have a bit of a negative side if I look a little further into the future. (PYP, student G)*

*Unless you immigrate or study abroad. It's disadvantageous. (At the college entrance) (PYP, student H)*

*Parents are very worried because the IB-related college entrance system is not yet very stable. (PYP, student I)*

*What I have recently felt is that IB is a bit of a disadvantage. We are now in our third year of middle school and will now go on to high school and later to university. However, rather than providing more support for the college entrance exam, the IB curriculum itself at universities offers many classes aimed at obtaining the IB DP. So, I can't go to college right now. Yes, so I think the lack of a route is a bit of a disadvantage of IB. But this is only discussed within our country. (MYP, student B)*

In a similar fashion, due to the relative lack of Korean university admission places for DP graduates, students currently enrolled in the DP felt a strong sense of disadvantages as far as university admission is concerned.<sup>12</sup>

*I think there's another thing we can talk about that, CAS. I think it is a system that was created to allow students to have a variety of experiences in addition to their studies, such as creativity, activities, and services, but*

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<sup>12</sup> Despite this advantage widely perceived by DP students during our interviews from October to December 2023, the university entrance outcomes announced in February 2024 showed that the first cohort of DP graduates from Pyeosun High School (Jeju) and DP schools in Daegu achieved successful results in terms of gaining admission to top-tier Korean universities and in the completion rates of the full DP (Sources: <https://www.donga.com/news/Society/article/all/20240124/123208067/1>; <https://www.donga.com/news/Society/article/all/20240123/123196866/1>).

*instead, they blindly fill in their vitals while applying for college entrance exams. What can I learn about CAS while focusing on this? I feel like I'm a little more focused this way. So, why is it so difficult to take the Korean entrance exam and IB at the same time? Because IB is not yet properly recognized in the Korean college entrance system. (DP, student A)*

*But my goal is to go to a good domestic university, so choosing IB is a bit... (DP, student E)*

*Actually, the IB system has not been fully established at the university yet, so I thought a lot about whether there would be any advantage to going to university if I implemented this. (DP, student H)*

*If you have the idea that you can get some benefit in college entrance by doing IB, that is very unrealistic. Additionally, what I'm thinking here is that, basically, our country's universities are not yet ready to welcome IB. (DP, student P)*

*But I think the downside to absolute (i.e., criteria-referenced) assessment is also big. Everyone knows this, especially when it comes to college entrance, but when absolute assessment is done, the number of students who receive high or low grades is not fixed. So because of that, I think that if the A ratio is too high in the university, they will not see me as a good student or a great student even if I get an A. I think this is actually a big problem in terms of college entrance that is really happening at our school. So, I think that might have had a negative effect. whether it was a subject or a field of study, so I hope that some kind of solution can be found to improve this entrance exam system. (DP, student R)*

**Challenges in Implementing IB Programmes within the National Curriculum:** Teachers perceived the IB programmes to be challenging in the context of the national curriculum. In particular, they found it difficult to design units that align the IB (curriculum for DP, framework for MYP and PYP) with the national curriculum.

*The students are working hard and I think it's a very advanced and very good programme in that sense, but in our school, we run it alongside the regular courses, so from the teachers' point of view, they have to teach the general students as well as the IB students... It's very physically demanding and psychologically exhausting, and from our administrative point of view, it's like we're running two schools together. (DP teacher LE,)*

*So, what's happening is that it's not really organized from the top, but rather feels like we're just fitting everything into this framework that's already laid out. We have to teach all the content because, you know, it's required. But it feels like it's not moving organically, and IB demands that quite strictly. And, you know, other teachers may not feel the same way,*

*but in my case, what worried me the most was that while these students might go abroad or live overseas in the future, if they stay in Korea, the part I thought wasn't that important, they studied. But for them, not taking the IB exams and going somewhere else later, it's like they'll get penalized for the part I missed, and that's something I don't like. (PYP, teacher KM)*

*So, with that college entrance anxiety, and the fact that our 2015 revised curriculum doesn't quite align with the IB system, what happens is, if you're just doing IB, you only have to finish your internal assessment (IA) once every two years. But for us, we have to fill out the student record book four times. Three times, actually. For example, in the first and second semesters of this year, and in the first semester of the third year. So, we have to fill it out three times. But these three assignments can't all be the same, because each semester has different prescribed subjects, so the achievement standards will be different too. Then we have to write content that fits those standards. But we also have to prepare for the IA and practice it. However, having to write something different at every turn is really burdensome for the students. So, the Full-Dimension issue has decreased significantly (DP, teacher PST-3)*

In addition, MYP teachers felt somewhat overwhelmed by the need to teach content from the national curriculum that is not covered in the DP.

*So, if I want to do a unit that I'm interested in, it seems like I don't really have to cover this content, but still, if I don't teach it, it's not right. So, I also inevitably just kind of go along with the direction of the unit for a while, but then maybe add a little more at the end or something (MYP, teacher KJ)*

Another distinctive set of challenges faced by IB teachers relate to assessment: collaborative assessment (i.e., having multiple teachers assess the same student), dual assessment (i.e., assessing and recording in both the NEIS and IB systems), and qualitative assessment (i.e., providing quality feedback). Some teachers also noted difficulties with the ambiguity of the assessment criteria for qualitative assessment. In addition, they pointed out that the IB's assessment criteria were too fixed to be aligned with the national curriculum system and that there is a lack of support systems (e.g. information communication system) for effective assessment.

*In our national curriculum, we have written assessments and performance assessments, but IB just has a summative assessment at the end of the unit and a formative assessment in the middle of the summative assessment. Therefore, what is a 'summative assessment' in IB is listed as a 'performance assessment' in the public school information page (website) and official transcript. There's lots of confusion there. But anyway, what is more difficult is to compute students' IB grades under the current assessment system. (MYP teacher JE,)*

*"When it comes to grading, what comes to mind for me is our internal and*

*external assessments. In reality, grading external assessment questions is quite straightforward. The questions are designed with a clear intention, and even if there's an underlying final question, it's broken down into steps. So, students don't need to ponder whether to use formula 'a' or formula 'b'; they just solve the problem. Initially, when I received these questions, I found myself puzzled about their significance and what they demanded from students. On the other hand, internal assessments are incredibly challenging for students. The balance between these assessments seems to be collapsing. I often wonder what exactly IB expects in terms of achievement in mathematics." (DP, teacher PST-2)*

*However, even the assessment criteria itself are divided into categories using technical terms and so on, which initially made the content quite ambiguous for me (MYP, teacher LY)*

Similarly, all the coordinators irrespective of programme reported that they found it challenging to integrate topics from the national curriculum into the IB programmes while adhering to the achievement standards mandated by the national curriculum. This challenge is complicated by the lack of interdisciplinary topics and the heavy focus of acquiring knowledge in the national curriculum. These factors appear to make it challenging for teachers to implement inquiry-based learning while also managing the demands of the national curriculum.

*You might be thinking about some teachers. They wish they didn't have to rely on the national curriculum. So, when teachers explore interdisciplinary topics, trying to integrate the achievement standards of the national curriculum, it becomes very challenging for them. They can't grasp it sufficiently, and they're not sure if the achievement standards are relevant. Because of such thoughts, some people found it too difficult even to address the curriculum achievement standards this year... In the curriculum, everything is focused on knowledge, although there are functions and values, it's still knowledge-centered. So, operating the concept inquiry demanded by the IB, apart from interdisciplinary topics, within a single-subject curriculum, is still very challenging and there isn't enough time for it yet. (PYP Coordinator F)*

*Because of the nature of the school, having to do both IB classes and regular classes is tough... (DP Coordinator A)*

**Lack of IB Elective Subjects:** Some MYP students and most DP students perceived this as a major issue. They felt that the subject choices available to them are insufficient compared with other IB schools outside of the Korean public education system.

*I think it would be good to increase the number of subjects students can choose from at IB schools, giving students more options to pursue the subjects they want. (MYP, student B)*

*I think that spreading the IB means first increasing the number of subjects. Originally, there was a manual for IB, and the manual was translated into Korean and is currently being implemented in public education in Korea. For example, in the case of OO High School, there are only a few subjects. I think we need to seriously expand the number of subjects because there is so little to choose from. (DP, student J)*

*Actually, I do not think that the IB education we have been doing now is the entirety of IB education, and I thought that this IB conducted at OO High School was not a completed IB. So, I think that one of the characteristics of IB that I searched for and understood is that it is an advantage to delve deeply into more detailed subjects and gain such expertise. Currently, there are only a few subjects that we can take out of the actual subjects. "It's a situation. (DP, student P)*

**Mismatch or Disconnect with Administrative System:** The coordinators reported a further mismatch between the IB style of assessment and the integration of such assessment results into the National Education Information System (NEIS), the educational management system for the K-12 school system in South Korea. It is run by the government and schools have to comply with the system by regulation. Addressing this mismatch creates extra work for many IB teachers.

*The most problematic aspect when students take initiative and do things (e.g., learning activities, projects) in a distinctive manner is that the criteria for evaluating such activities are often standardized (in NEIS), which means students' achievements, activities and efforts do not fit into the standardized NEIS criteria in terms of documenting such student works. As I mentioned earlier, there are hardly any elements in the NEIS that can be integrated with ours (IB assessment), which puts an extra burden on teachers. This undoubtedly creates a sense of overload and burden in terms of workload for teachers. (PYP Coordinator C)*

A further mismatch is that DP subjects are considered as 'career-oriented' elective courses for college admission. Notably, high schools in South Korea tend to prestige general elective courses over career-oriented elective ones, given that they are more weighted in college admission. This poses a disadvantage for DP students, as DP subjects such as IB Korean (Language A) and IB English (Language B) cannot count as general electives. They are regarded as career-oriented ones. This mismatch becomes a concern for DP students and teachers because it can significantly downplay the DP students' academic performance in the university admission game as the university entrance system values general electives more than career-oriented subjects.

*In fact, one of the difficulties we faced during this university entrance examination was that Korean high schools have general elective courses... career-oriented elective courses. However, the weight is on general elective courses, so for example, in the Korean language category, if you take about 3 or 4 general elective courses, then you'll have about 12 credits or more. Regular schools do that. However, all of our subjects in grades 2 and 3 are*



*IB subjects. IB Korean, IB English, these subjects with IB cannot be offered as general elective courses, they are already set as career-oriented elective courses... However, despite that, universities specify that students applying through this system must have more than 15 credits in general elective English. But we can't do that. We are unable to apply... In many cases, we couldn't even apply, and even universities that didn't explicitly mention it, when we asked the admissions officers how they evaluate it when career-oriented electives are already set, they said they rank general electives from grades 1 to 9, so it's easy for them to grade, but you are only graded ABC [for career-oriented elective subjects], so if you apply, your students will likely be at the bottom. (DP Coordinator F)*

In addition, MYP students felt disadvantaged in converting IB assessment scores to NEIS scores in parallel with the national curriculum, expressing dissatisfaction with the current method as presented in the following quotes:

*In the case of IB, it means plus grading. So, as I continued to study with the minus grading that the teacher had given me in the past, I couldn't get used to the plus grading. So, since they don't know how much they have to do to get this high score, they keep studying and are pressed for time, so I think there's a lot of differentiation in that. (DP, student D)*

*And now IB evaluates from 0 to 8. So, when converted to a NICE score, the NICE score drops by 8 points for each point. Starting from 100 points, 8 points is 100 points, 7 points is 92 points, and so on. If you make a mistake, the points are reduced one by one. Every time that happens, my score drops significantly. I think it's a drawback. (MYP, student E)*

*Yes, that's right, it's so sad. If you just look at the IB score, it's not a bad score, but now if you look at the Nice converted score, it drops a lot. And really, we have finished the final exams now, but as my friend here said earlier, the nature of the IB assessment and the final exams are very different. But preparing for both is really hard, and my personality is different, so I felt like I had to study almost the same thing twice. (MYP, student I)*

*It's something I emphasize a bit several times, but I think the ratio of final exams is too high right now. Only 15% is given per summative assessment. But there is one final exam, and that's 40%. So, looking at that, in order to become an IB in practice, the nature of it is very different from IB, but I don't quite understand why the ratio is so high, and it seems to be a limit because we try to adapt IB to our country. , I think it's not quite IB, it's not education, and it's in a bit of an awkward state. So, I really think there is nothing else to do but reduce the percentage of finals a little too much. (MYP, student K)*

### 3.6. Opportunities and Challenges: Ambivalent Views

In the process of data analysis, key themes emerged that were relevant across the research questions such as RQ2 (focusing on opportunities and benefits) and RQ3 (focusing on challenges and issues). These related themes are explored / analyzed below.

- **Short-term challenges but long-term benefits**
- **Rigorous learning experiences but challenging**
- **Social-emotional competence vs. stress from cooperative learning**
- **Teachers' professional growth vs. teachers' workload and burnout**
- **Two sides of one coin: Korean university admission**
- **Growth of private supplementary tutoring to complement IB education vs. IB as a cure for private supplementary tutoring Issues**
- **Potential synergy between the IB Programmes and National Curriculum**

**Short-Term Challenges but Long-Term Benefits:** Parents generally perceived the benefits of participating in the IB programmes from a long-term perspective. They viewed activities such as the extended essay (DP only), cooperative learning, and self-directed learning in the IB curriculums not only for their immediate effects, but also for fostering adaptability to university and developing essential competencies for social life, this offering long-term advantages.

*I'm one of those who strongly supports transitioning our country's educational curriculum to something like the IB curriculum. As I mentioned briefly before, in the era of the Fourth Industrial Revolution, it's impossible to outsmart AI through mere memorization and rote learning. Instead of focusing on memorization, it's crucial to provide an education that enhances critical thinking skills. Even if it's not the IB programme, I truly believe that our country's educational system needs to change. (DP, Parent Q)*

*The goal of pursuing IB education might be the DP, which is the culmination, but the most crucial phase starts in elementary school, developing autonomy and collaborative skills, including character building. My child, a girl, was not very outgoing or expressive, but I've noticed a significant increase in her initiative, which makes it clear that this education is essential. Going through primary, middle, and high school, as done in the Pyoseon area, I've come to realize that IB education can truly shine in the age of AI. (MYP, Parent R)*

**Rigorous Learning Experiences but Challenging:** Although all the parents participating in the interviews expressed positive views of their children's learning experiences in the IB, they also felt that the IB programmes themselves were difficult for students to undertake. Parents expressed that the IB programme was challenging for their children, especially due to the various assessments required, including performance assessments, assignments, comprehensive exams, external exams, and report writing. They felt sympathetic towards their children who had to go through these assessments, noting that these tasks were relatively more demanding compared to the national curriculum.

*...So, when you look at the education pursued by IB schools, the exams are very difficult in reality. It's actually hard, but the performance assessments are incredibly demanding, and there are many assignments, and then the exams become difficult, so the child struggles a lot in that situation. (MYP, Parent H)*

*Parent J: ...Even though kids have to take midterms and final exams, my child only needs to take the final, so I thought it would be easier. In reality, however, my child was continuously doing performance tasks and summaries and was taking the final exam at the end.*

*Professor Lee: They take the final, because it's required by the national curriculum.*

*Parent J: So, I realized that my child doesn't have time to take a rest while pursuing this IB programme. What I felt while watching my child study is that IB can't be done just by cramming for midterms or finals.*

*Parent D: At first, it was so unfamiliar because they had to find out everything by themselves. Before, teachers would tell and pass on the information, but now, teachers present a big category, and the students are supposed to gather information and find out their solutions by themselves, so there is much greater difficulty with that. But after getting trained with it for about 3-4 years, they realized, 'Oh, this is how we should do it,' and started to look it up and discuss it with each other, so now it seems to work better than the beginning. However, when I hear about our older siblings or those who go to a traditional high school, it's very hard... they say it seems harder than what they do in regular high schools. (PYP, Parents D & J)*

More specifically, there were also concerns about the difficulty of assessment in DP Chemistry. DP Chemistry teachers, for example, reported that the DP Chemistry course was much more challenging than that offered in the national curriculum, and that it could be challenging even for college professors.

*The curriculum content in Chemistry 1 covers only one "part" of chemistry, so it's not like Chemistry 2 is a sequential course to Chemistry 1. They're two completely different courses with different content areas... There are some inference tasks (in IB assessments) that high school students with very strong math skills might be able to do well because their brains are very active at that age, but honestly, I think professors will have a hard time with them. (DP, Teacher JY)*

**Social-Emotional Competence vs. Stress from Cooperative Learning:** Parents observed academic as well as personal/social growth in their children through the cooperative learning actively implemented in the IB programmes. They shared that richer and more frequent

opportunities to communicate with peers in cooperative learning allowed students to empathize and negotiate with others' opinions and learn how to solve conflict.

*The kids somehow find a way to work things out with their friends. Nowadays, all the kids have mobile phones, so they coordinate who does what via KakaoTalk<sup>13</sup>. With this application, they can communicate their parts and accept each other's contributions. If something doesn't work out, they face each other back at school and seem to negotiate a solution. Of course, there are some who don't follow along. (Jeju, PYP, Parent J)*

*In my case, my eldest is a daughter who was quiet and had a tough time not getting along with me during her first year of middle school. My second and third children are sons who really didn't get along with me during their second and third years. But as they started the IB and began receiving inquiry-based assignments, I found myself learning and thinking a lot more alongside them. This experience led me to change, and my daughter began to express herself more openly and share her thoughts. Additionally, the children had somewhat lacked empathy. However, as they started discussing in a debate-style class, my daughter would come and tell me, 'Mom, this friend thinks this way, so that's why they think that way,' starting to speak up and respect their friends' thoughts and troubles, which has also significantly affected me. (PYP, Parent Y)*

While overall, parents were satisfied with the IB's emphasis on cooperative learning such as MYP community projects, team projects, etc., parents have also noted that in the cooperative learning emphasized by the IB programmes, communication and learning challenges can cause stress for students potentially leading to disadvantages in the assessment/evaluation process. Since not all members actively participate in the cooperative learning process, students feel significant pressure to communicate effectively and strive not to be disadvantaged in assessments and evaluations. However, overcoming these challenges in cooperative learning can also explore the potential for student growth.

*In the case of my child, who transferred in fifth grade and is now in sixth grade, they had already been educated in the traditional elementary system. So, coming here and undertaking the IB PYP, it seems like there are parts they keep missing. If the traditional education followed a textbook in a sequential manner, the PYP allows the child to engage in a lot of inquiry, which seems to ensure deep learning for sure. But I think the breadth might have narrowed a bit due to this focus on collaboration, which stresses the child out when there are teammates not keeping up. Yet, it seems like they are growing through this process of overcoming and working together. (PYP, Parent J)*

*We've managed without any major conflicts. I hear a lot of good things, and I'm grateful for how well my child is growing. It might just be my*

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<sup>13</sup> Kakaotalk is a widely used mobile application for text messages in South Korea.

*child's personality, but with my second child engaging in these collaborative activities, I've realized that the evaluation criteria are not clear. It's not that I've seen the collaboration, but if, say, five children are working together and two can't contribute, they all might get their scores docked. There's no way to teach or include a child who avoids participation. But that's considered in the evaluation. So, I usually say similar things, like, 'If you end up doing it, you'll grow more.' Or, 'It's part of school to learn how to deal with such people.' But, I can't recall exactly, my child told me about it, and it seems there's no way to protect their score because of these two children. So, in a situation with no solution, I feel sad seeing my child worry about losing points because of their peers, though I never wished for them to grow up like this. (MYP, Parent O)*

**Teachers' Professional Growth vs. Teachers' Workload and Burnout:** As noted earlier, a vast majority of teachers expressed a sense of professional growth and mastery through IB programme implementation. At the same time, however, the implementation of the IB seems to have significantly increased the workload for teachers, including unit development, open classroom teaching, co-assessment, double assessment, and submission and storage of assessment evidence, which has led to a decrease in job satisfaction. They also felt that they did not have enough time to provide sufficient feedback to students due to excessive work hours. On the other hand, many teachers felt a great sense of fulfillment as they saw the improvement in the quality of their teaching and the progress of their students.

*The IB teachers help the heads of departments with their work, and they also help the low-experienced or new teachers with their lessons and assessments... I'm usually a very fast worker and I have a big capacity, but this year I'm a little bit overloaded. I don't have a problem if I just do schoolwork, but now there's a lot of IB-related stuffs... I'm a little bit anxious that I'm not going to be able to do this for a long time. (MYP teacher KY)*

Regarding the sustainability of IB in Korean public schools, teachers felt that reduced district support for the IB programmes would make it difficult to ensure that they continue to exist. There was a mix of positive perceptions and concerns about the sustainability and expansion of IB. For example, there were questions about sustainability due to cost and workload, but there was also a desire for fundamental changes in teaching and a positive perception of changes in school culture.

*As you know, Daegu office of education is operating this as a policy, so it is operating now because there is a lot of support. Parents also ask such questions. How long can this continue? We are also worried about that. (DP teacher LE)*

*I think it's sustainable if the IB teachers are passionate about it. For the first two years, it was a bit of a settling-in process, so we tried it very hard, but now we have experienced it. If new teachers are coming in and we keep teaching it again and again, it will become a schoolwide culture that high-*

*career teachers cultivate low-career teachers' ability to effectively implement the IB programme. If the teachers' passion continues, I think we can do it. (DP teacher KH)*

Parents appreciated the dedication and care teachers in IB schools show towards students' educational activities and guidance. However, there were serious concerns about teacher burnout. Parents reported that teachers often work late and overtime, leading to skepticism about the sustainability of the IB programmes. The influx of students from other areas into IB schools in Jeju, resulting in larger school sizes, is also seen as a significant factor contributing to teacher exhaustion.

*Parent O: If this system suddenly fails, and the teachers become exhausted as if this was all for nothing, that would be really tough.*

*Professor Lee: Right, you mean, there are quite a few (teachers) who are already experiencing burnout.*

*Parent J: So, when I go to high school once a week for about a week each year, I see teachers working overtime, having meetings, and spending time in the library. Each time I see this, I realize teachers are aware of other aspects, but can they really continue to endure this?*

*Professor Lee: We are continually contemplating the sustainability of this.*

*Parent J: Exactly, it's continuously like that, and it's worrying.  
(PYP, Parents Q & J)*

*As the number of students increases, so does the workload for teachers. In my case, when I chose this for my child, there were two key reasons: it wasn't rote education, and the teachers were long-term employees. So, I thought my child could continuously adjust and match up with the teacher, seeing these as two advantages. But ultimately, if families are happy, the children will be happy. And in school, if the teacher is happy, our children will be happy. But as the number of students continues to grow, and now that my son is in second grade, I see more transfer students coming in. It's significantly increasing the workload for teachers. I wish there were a set quota or rule for how many students per class because the numbers keep growing. The incoming first-year classes are already so large, and I'm worried about that. It seems like some regulation is necessary to manage the influx because if there's a limit, it could also limit new entries. I'm not sure about the legal system, but for the sake of education's future, some blocking might be needed. From what I see, especially middle school teachers, though I'm not sure about elementary teachers, seem to be struggling a lot. They work a lot of overtime and have a heavy workload, ultimately, if the teacher can smile, our children can smile. (PYP, Parent J)*

In addition to their concerns about sustainability of implementing the IB programmes, parents also expressed another related worry. Despite their overall high satisfaction with IB education, they were concerned about the potential policy discontinuity of IB education implemented by local education authorities in the future. Specifically, they feared that changes in policy could occur depending on the election outcomes of superintendents responsible for IB education, who are elected every four years. Having observed shifts in educational policies in the past, these uncertainties led parents to fear that their children might be disadvantaged.

*I'm really in the midst of deciding. I think I'll send my child to a regular high school...My eldest is currently in middle school, and this school is certifying its first graduating class. Since it's the first graduating class for the middle school too, it feels like my child is constantly being experimented on. Of course, my child is outgoing and active, which could be advantageous in this school, but this system hasn't been established for 10 or 20 years yet. We don't know what will happen if the education superintendent changes. And if it suddenly disappears... We're also close to needing re-accreditation. Considering that, there might be some risks, so perhaps it would be safer to prepare for the regular university entrance exam at a high school. (PYP, Parent L)*

*I've always said that the education office has been mentioning that our children are like guinea pigs. When such comments are made loudly enough to reach parents' ears, naturally, it gets to the children too. Despite their high motivation and eagerness to work hard, hearing such demotivating comments can lead them to question if they made the wrong choice. Some people are even suggesting now might be a good time to start preparing for the CSAT. And at the university admission fair held here, over two days, I visited, and the admissions officers at the university booths were saying the same thing. 'You have to take the CSAT in our country,' they said. When parents and students go for counseling, they ask why the CSAT isn't being taken. 'We understand IB, but why not take the CSAT?' Hearing this, we feel defeated. (DP, Parent Q)*

**Two Sides of One Coin: Korean University Admission:** Many teachers and parents were concerned about the possibility that undertaking IB education could be a disadvantage in the Korean university admissions process. However, some parents considered the IB programmes to be advantageous in non-standardized university admission processes where the focus is on performance assessments or comprehensive student records (i.e., student portfolio of learning outcomes and achievement). They reported that the depth of learning activities in IB allows students to internalize what they learned with greater impression, giving them an edge in admission interviews. Furthermore, the shift towards performance assessments in the current Korean public middle and high school grading systems suggests that IB could also be advantageous for advancing to higher education levels.

*In regular high schools, students need to independently seek out and engage in various activities to fill their records. However, the IB curriculum*

*helps students naturally fill their records because the students are deeply involved in their learning activities (with rich experiences). If they are just called for an interview, they can deeply elaborate on their research and studies because they know it so well since they've been immersed in it. (DP, Parent W)*

*My eldest child asked me, 'Mom, should I go to an IB high school?' She enjoyed IB a lot in elementary school, but... in middle school, however, performance assessments account for a significant portion of the grading. The kind of education they receive in the IB programme helps them to become excellent in handling these assessments. For example, for a recent art performance assessment in the 8th grade, my child chose a painter and had to know about the painter's achievements and life. Then, they creatively decorated the painter's studio based on their research. They did it so creatively and well, utilizing the skills they learned. So, sending our kids to an IB school is attractive, but then immediately, the concern about how much tutoring is necessary comes to mind. (PYP, Parent L)*

Similarly, teachers felt that the IB could be integrated to some extent into the current university admissions system by recording students' learning experiences and assessment results in the existing system, the National Education Information System (NEIS). They noted that there is currently no space in the NEIS to record all the rich learning experiences and personal growth that IB students have developed through the study of their IB programme. Simply put, teachers felt that it would be difficult for students' learning and growth to be fully recognized in the current Korean university application system.

*The one good thing about the current system is that the various activities that students have taken part in through IB can be documented in the NEIS... but we can't fit them all into the given space (500 characteristics maximum) that the transcript allows, so if possible we would like [admissions officers] to take into account that the fact that these students have done the IB curriculum means that they have done a lot more and taken a lot more initiative than what is actually recorded on the transcript. (DP, Teacher CS)*

**Growth of Private Supplementary Tutoring to Complement IB Education vs. IB as a Cure for Private Supplementary Tutoring Issues:** In South Korea, there exists a context-specific concern that IB might contribute to expanding the nation's private supplementary tutoring market. Private supplementary tutoring (i.e., Hagwons) is often referred to as "shadow education" due to its responsiveness to changes in educational curricula and policies, and its evolution to meet consumer demand. With the formal implementation of the IB into public education, and the rising number of students participating in the IB programmes, there has been an expansion of private supplementary tutoring services targeting these students throughout Jeju Island. Many parents, who are concerned that the IB curriculum may be disadvantageous for university admissions compared to traditional curricula, have engaged their children in private supplementary tutoring (see Chapter 4 for detailed statistics about this). Interestingly, however,



students with IB experience believed that private supplementary tutoring barely benefits their learning within the IB framework. At the same time, however, there was variation in parents' perceptions of the effectiveness of private supplementary tutoring, ranging from no effect at all to partially or fully beneficial:

*My child started watching EBS (Korean Educational Broadcasting System) and taking online courses, but within a week, they found the material too easy. (While participating in the IB programme) He was used to researching and discovering on their own, rather than just listening to a teacher's lectures. As the EBS course progressed, he found it too simple. 'This is too easy, what is this?' he would say. After a few weeks, however, they were needed to memorize what they have learned, and they began to struggle because they hadn't practiced memorizing in this way before. They found it confusing and eventually quit after a month. (MYP, Parent O)*

*...It was clear that the tutoring they received wasn't just from any typical academy. My child's current tutoring doesn't focus solely on grammar, so it doesn't feel entirely alien. However, during exam periods, tutoring does help increase their study load by supplementing school materials, which seems somewhat beneficial. (MYP, Parent N)*

*The education system would be fine if it continued in its current form, but there's a lot of external influence. Like many others, I moved to OO because of the IB, but students coming from the mainland or abroad for the DP programme are often perceived to be highly skilled (in a competitive testing system). As mentioned, to prevent falling behind or to prepare for competitive high schools, parents have no choice but to rely on private supplementary tutoring. Not surprisingly, many tutoring centers are popping up in Jeju. (PYP, Parent J)*

*In my child's case, they seem to be mixing the traditional pen-and-paper tests and the kind of private supplementary tutoring we're familiar with quite well with the IB's performance assessments. As mentioned earlier, if learning is about acquiring knowledge, and we usually cover from level 1 to 5, there's a certain amount of work students need to do regardless of the purpose of the assessment. (MYP, Parent N)*

*I never even thought about the possibility of private supplementary tutoring coming in, but nowadays in community online (in Korea, also known as 'cafe'), there's growing concern that the private tutoring market is expanding. (DP, Parent P-1)*

Interestingly, some coordinators believed that IB education could offer solutions to address the limitations or side effects of the implementation of the Korean national curriculum, such as exam-oriented learning and excessive private tutoring.

*In reality, we cannot utilize the textbooks. In practice, the typical classroom involves using materials linked to EBS (Educational Broadcasting System, supported by the government), and as a result, there is a significant disparity between the teaching methods intended by the textbooks and reality. Also, when it comes to Soo-neung<sup>14</sup> preparation classes, there are too many alternatives available to our school teachers. Especially after the era of COVID-19, with the normalization of online education, students tend to rely more on the classes of internet instructors for Soo-neung preparation, rather than on school teachers. Consequently, there are aspects where student participation in classes is somewhat lacking, and if students become like that, the authority of teachers in assessment/evaluation also becomes somewhat nominal. I believe ...but with IB classes, such aspects don't work. (DP Coordinator A)*

*In our vicinity, there aren't many cram schools available. Even when we administer tests, students, despite preparing with performance assessments from cram schools, feel that it's somewhat ineffective when they return to school. Even mothers feel somewhat disappointed... (MYP Coordinator E)*

*Our national curriculum may seem very fancy. However, it remains at the declarative level within the curriculum and actually implementing it in schools or classrooms is a completely different issue. No matter how much the curriculum is revised, even if there are changes in the classroom due to some approach or whatever, it doesn't feel like teaching, learning, and assessment have changed accordingly. However, because of the mechanism of the IB, in order to create evidence that needs to be implemented and demonstrated, gradually, we are moving towards the direction stated in the documents, so I'm in a hurry to pursue that, rather than feeling a gap in those documents. (PYP Coordinator F)*

**Potential Synergy between IB Programmes and National Curriculum:** As noted earlier, many teachers and coordinators highlighted the challenges of implementing the IB programmes within the constraints of the national curriculum. However, some coordinators observed a reciprocal influence between the IB and regular curricula. For example, teaching methods practiced in IB classes were sometimes applied to non-IB classes, and vice versa.

*In attempting to pursue both simultaneously, I believe there is a reciprocal influence, where, for example, the techniques I have developed for teaching Soo-neung English, such as analyzing passages, are incorporated into IB*

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<sup>14</sup> It refers to the College Scholastic Ability Test (CSAT), a standardized test that is administered by the Ministry of Education nation-wide. This is a very competitive, high-stake test for students in their final year of high school because it determines which university they can attend. It is often regarded as the epicenter of critical problems facing the South Korean education system such negative impacts on students' physical and mental well-being, rotten learning, increase in private supplementary tutoring for CSAT, etc. (Lee et al., 2022c).

*classes, and vice versa. However, naturally, such endeavors require time for refinement... (DP Coordinator A)*

In addition, one coordinator pointed out that there has been a natural integration of IB characteristics into her teaching practices, and she encourages other teachers to continue using such IB ways of teaching.

*My experiences in teaching inevitably influence my classes. Consequently, they naturally become imbued with IB characteristics wherever I go. However, as this spreads in various directions, it becomes somewhat ambiguous for teachers to assert where the boundary lies in terms of being purely IB. Because it becomes integrated into teaching, such concerns arise, but I see it as a natural occurrence. So, what I'm emphasizing now is that teachers, even after I leave or anyone else leaves, should utilize those who have left. That's the advantage of public schools. (DP Coordinator D)*

Similarly, primary teachers felt that IB helped them to implement the national curriculum at a deeper level. They believed that the Approaches to Teaching and Learning, as endorsed by the IB, allows students to learn in a more authentic way.

*In fact, the 2015 Revised National Curriculum, which was implemented even before IB was introduced in Korea, emphasized generalized knowledge; and there was also an emphasis on interdisciplinary or interdisciplinary learning along with an emphasis on concept-based learning. However, it did not necessarily mean that these curricular emphases were implemented in the classroom. They were just in the curriculum document before IB was introduced. (PYP, Teacher JW)*

# 4. QUANTITATIVE STUDY OF 18 IB SCHOOLS

## 4.1. Data Collection

**Survey Questionnaire:** As briefly noted in Chapter 3, we developed survey questions drawn from the comprehensive analysis of our qualitative research findings. This process was made with the incorporation of our team members' think-aloud activities. We tried to verbalize our thought processes while articulating the key findings from the qualitative data. This process enabled the identification of an array of initial survey areas with greater precision. We then wrote draft survey questions and categorized them in alignment with our research questions. Next, we collaboratively evaluated each of the survey questions in terms of content validity through which we removed or refined the survey questions. This process was repeated until we reached agreement. In addition, we sought feedback on our initial survey questions from the IB research manager supporting this research project. We believe that this iterative and collaborative process improved the content validity of our survey questions, as highlighted in previous research (e.g., Fowler, 1995). The final version of both teacher and student survey questionnaires is presented in Appendices 4.1-6.<sup>15</sup> Given that the survey items were deeply grounded in our qualitative findings, we also believe that they are both empirically grounded and contextually relevant.

In addition, we utilized existing validated survey instruments. Specifically, to measure teachers' perceptions, we adopted the Teaching and Learning International Survey (TALIS) 2018 questionnaire. Regarding teachers' perceptions of benefits, opportunities, difficulties, and challenges of IB programme implementation, we used IB specific questions developed and validated by an IB commissioned study (i.e., Lee et al., 2022a), comparing IB teachers across eight societies. For students' perceptions of learning experiences and outcomes, we used Walker et al.'s (2016) IB Learner Profile study in Asia and Hong et al.'s (2023) survey study on whole-person development recently conducted in South Korea.

**Target Samples and Response Rates:** We collected survey data from both teachers and students in the 18 IB schools in our proposal. Based on the collaboration with the IBO, we chose all IB authorized public schools (i.e., the 18 schools) as of December 2022 in South Korea. As a result, the target schools included nine PYP schools, five MYP schools, and four DP schools in Daegu and

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<sup>15</sup> The presented survey is a translated version in English. The original Korean survey was translated into English by our team collaboratively. The English version was checked by a native English speaker, one of our team members, who also lived and worked in South Korea for substantial years. In so doing, we tried to ensure cultural nuances and linguistic subtleties. The English version was also translated back into Korean by translation software. We compared the original Korean survey and the back-translated Korean version by the translation software. We identified a few discrepancies in the meaning and nuances of survey wordings. Based on this, the English version in the Appendices 4-1 to 4-4 was refined to ensure that it accurately reflects the original meaning in Korean as much as possible.

Jeju. The survey took place online from June to July 2024. While we targeted all MYP and DP students in the schools, in the case of PYP students, we surveyed with upper-grade students (i.e., 5th and 6th graders), considering their literacy ability to understand survey questions properly. Another reason for this was that several PYP schools offer the PYP only to upper-grade students, instead of school-wide implementation of the programme.

We approached all 18 IB schools in the proposal and all the 18 schools agreed to participate in the survey. Of the 532 IB teachers in the 18 schools, 320 IB teachers responded to the teacher survey; the response rate of the teacher survey was 60.15%. For the student survey, of the 4,383 IB students enrolled in the 18 schools, 2,875 IB students responded to the survey; the response rate was 65.59%. More details such as response rates for each school are available in Appendix 4-5.<sup>16</sup>

## 4.2. Analytical Strategies

Consistent with the purpose of the study, our analysis focused primarily on descriptive analyses of the survey data. In doing so, we took the following steps:

- We included only valid responses in cases where some respondents left all questions unanswered. Additionally, all responses from teachers involved in IB programmes were included in the analysis to maximize the number of responses. This same approach was applied to the student survey data. As a result, the number of respondents varies across different question groups. Next, descriptive statistical analyses were conducted to address the research questions of this study. After assessing the normality of the data (Curran et al., 1996), descriptive statistics such as mean, frequency, and standard deviation were calculated for each survey item. Additionally, overall averages were computed for groups of items that are conceptually related, such as teachers' job satisfaction and students' Learner Profile attributes. In addition to checking the reliability of key concepts (such as job satisfaction and Learner Profile attributes), we conducted *t*-tests or ANOVA to compare groups within both the teacher and student surveys. For some categorical data, chi-square tests were used as supplementary analyses. For the teacher survey data, comparisons of group means were investigated according to programme and whether the teachers held leadership positions.
- For the student survey data, comparisons of group means were examined by programme and academic performance.
- Through this, we examined whether statistically significant differences existed based on the characteristics described above. For ANOVA, the post-hoc analysis was conducted using the Games-Howell method (Games & Howell, 1976) as this method is particularly well-suited for situations where the assumptions of equal variances and equal sample

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<sup>16</sup> The response rate for teachers was calculated by taking the total number of teachers involved in the IB programme (i.e. IB teachers) at the 18 schools as the denominator, and the number of IB teachers who responded to the survey as the numerator. It should be noted that among the respondents, some teachers indicated that they were not involved in teaching the IB, and these teachers were not included in the main analysis and thereby not in the response rate. Regarding student samples, we targeted the following groups of students in the 18 IB schools: for the DP, 11th and 12th graders (corresponding to DP Year 1 and Year 2) were asked to respond to the survey; for the PYP, only 5th and 6th graders were invited to the survey; and for the MYP, all students in the middle school (i.e., all 7th, 8th, and 9th graders) were asked to participate in the survey. These sampled groups were used as the denominator in calculating the response rate of students. Some students who responded were not undertaking the DP but the national curriculum. As a result, they were not included in the main analysis and thereby not in the response rate.

sizes across groups are not met. The Bonferroni test also was conducted to address potential Type I errors in group comparisons.

- For the student survey data, we conducted further comparisons using latent mean analysis (Aiken et al., 1994) to investigate patterns and levels of specific constructs across various sub-groups within our student samples. This analysis was applied to several key concepts derived from the student survey data. However, latent mean analysis was not applied to the teacher survey data due to an insufficient sample size.
- All datasets were analyzed using Stata and SPSS.

### 4.3. Results from the Teacher Survey

**Demographics of the Respondents:** A total of 393 teachers responded to the survey; 320 respondents indicated that they teach one of the IB programmes, comprising 81% of the sample, and 73 respondents indicated that they were not involved in teaching the IB, representing 19% of the sample group. Those in the sample group not involved in teaching IB programmes included school nurses and school librarians. They were identified across PYP, MYP, and DP schools. However, the non-IB teachers who responded were primarily from DP schools in Daegu, where the DP is offered for select classes only, based on students' choice, rather than for the entire school. Other non-IB teachers in the sample group were from PYP schools, some of which implement the PYP only for upper-grade students, rather than across the entire school. It should be noted that non-IB teachers were not included in the main analysis presented below, because they did not directly have experience of implementing IB programmes.

Among the 320 IB teachers, the majority were from schools in the Daegu region, accounting for 82% (262 teachers), while 18% (58 teachers) were from the Jeju region. In terms of IB programmes, 37% of the teachers were involved in the PYP, 42% in the MYP, and 21% in the DP. Gender distribution showed that 62% of these teachers were female, while 38% were male. Career experience among the IB teachers varied, with 21% having 1 to 5 years of teaching experience, 20% with 6 to 10 years of teaching experience, and 22% having 16 to 20 years of teaching experience. Teachers with more than 25 years of experience were relatively few, with only 3% having 26 to 30 years of experience and 2% with 31 to 35 years of experience. Subject-wise, 14% of the teachers specialized in English or Foreign Languages, followed by Social Studies or Ethics at 10%, and Natural Sciences and Mathematics each at 9%. A significant portion, 28%, were unspecified as they were elementary school teachers. In terms of teachers in leadership positions, 67% of the respondents were regular teachers, while 33% held leadership positions such as department heads, IB coordinators, or master teachers. Additionally, 38% of the teachers also served as homeroom teachers. This data is detailed in Table 4-1 below.

**Table 4-1. Demographics of the Survey Respondents**

Category	Subcategory	Freq.	Prop.
IB class	Teaching IB	320	81%
	Not Teaching IB	73	19%
Among IB teachers (N=320)			
School	Daegu 1 (DP)	29	9%

	Daegu 2 (MYP_	27	8%
	Daegu 3 (PYP)	6	2%
	Daegu 4 (PYP)	10	3%
	Daegu 5 (PYP)	17	5%
	Daegu 6 (PYP)	8	3%
	Daegu 7 (PYP)	24	8%
	Daegu 8 (MYP)	26	8%
	Daegu 9 (PYP)	16	5%
	Daegu 10 (MYP)	19	6%
	Daegu 11 (DP)	19	6%
	Daegu 12 (MYP)	37	12%
	Daegu 13 (PYP)	15	5%
	Daegu 14 (DP)	9	3%
	Jeju 1 (PYP)	8	3%
	Jeju 2 (DP)	11	3%
	Jeju 3 (MYP)	26	8%
Jeju 4 (PYP)	13	4%	
Region	Jeju	58	18%
	Daegu	262	82%
Programme	PYP	117	37%
	MYP	135	42%
	DP	68	21%
Gender	Female	199	62%
	Male	121	38%
Years of teaching	1~5 years	67	21%
	6~10 years	65	20%
	11~15 years	55	17%
	16~20 years	70	22%
	21~25 years	47	15%
	26~30 years	11	3%
	31~35 years	5	2%
Subjects taught	EE (DP only)	1	0%
	TOK (DP only)	3	1%
	Natural Sciences	30	9%
	Korean literature/language	29	9%
	Technology & Home Economics	11	3%
	Multiple Subjects appointed	7	2%
	Social Studies or Ethics	32	10%
	Mathematics	30	9%
	English or Foreign Languages	45	14%

	Music or Art	22	7%
	Computer or Information Technologies	3	1%
	Career	1	0%
	Physical Education	13	4%
	Not specified (for elementary school teachers)	91	28%
	Not responded	1	0%
Leadership position	Teachers	214	67%
	Department heads/IB coordinators/Master teachers	106	33%
HR teacher	Home Room (HR) teachers	121	38%
	Not HR teachers	199	62%
Total		320	100%

Note. In South Korea, teachers who are highly experienced and skilled in teaching can be officially appointed to the position of 'Master Teachers.'

**Key Benefits of IB Programme Implementation:** For Research Question 2, we asked respondents to rank the key benefits of being an IB teacher in order of importance. The available options for ranking were: Professional Development, Access to Innovative and Diverse Educational Tools, International Recognition as an IB Teacher, Pedagogical Practice, and Access to an International Educational Network. The results are presented in Table 4-2 and Figure 4-1. The results indicate that Professional Development was considered the most significant benefit, with 158 respondents ranking it as the most important (1<sup>st</sup>), and it consistently received high rankings overall. Following this, Access to Innovative and Diverse Educational Tools was also highly valued, with 56 respondents ranking it at the highest level of importance and 143 ranking it 2<sup>nd</sup>.

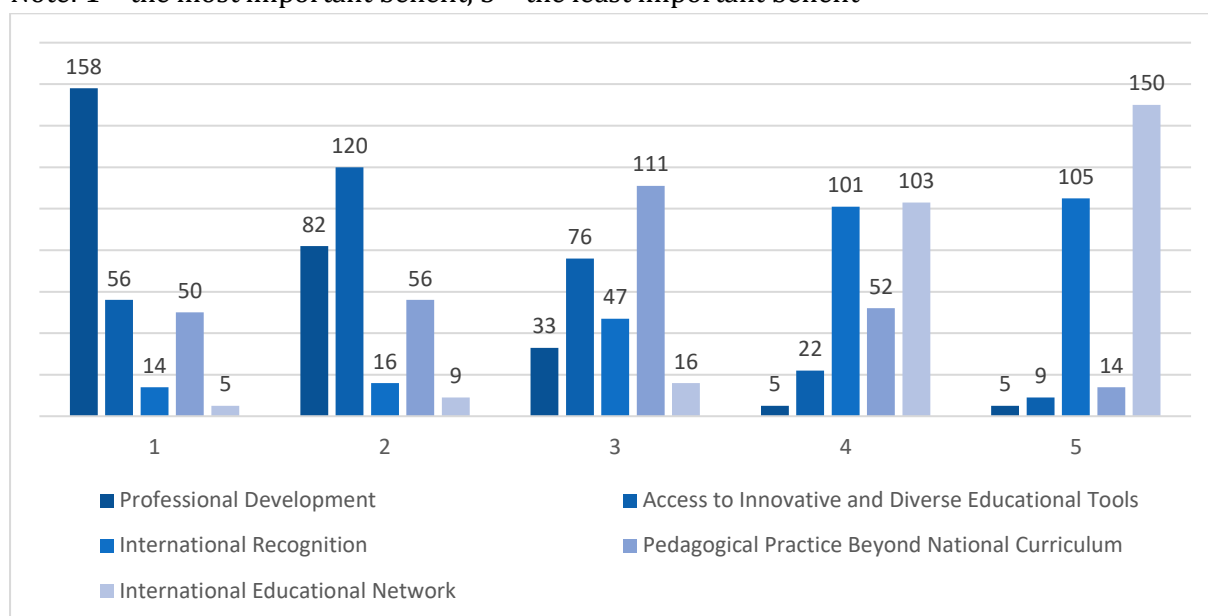
Alternatively, International Recognition as an IB teacher was generally seen as less crucial, with only 14 respondents ranking it 1<sup>st</sup>; it was more commonly placed in the 4<sup>th</sup> or 5<sup>th</sup> positions. Pedagogical Practice was appreciated for its importance as well, being ranked 1<sup>st</sup> by 50 respondents and often receiving middle rankings from others. Lastly, Access to an International Educational Network was the least prioritized, with a majority of respondents ranking it 5<sup>th</sup>, indicating it is seen as the least significant benefit among those provided.

**Table 4-2. Teachers' Perceived Importance of IB Teaching Benefits by Rank**

Rank	Professional Development	Access to Innovative and Diverse Educational Tools	International Recognition	Pedagogical Practice Beyond National Curriculum	International Educational Network
1	158	56	14	50	5
2	82	120	16	56	9
3	33	76	47	111	16
4	5	22	101	52	103
5	5	9	105	14	150
Total	283	283	283	283	283



Note: 1 = the most important benefit, 5 = the least important benefit



**Figure 4-1. Teachers' Perceived Importance of IB Teaching Benefits by Rank Note.** *N* = 283

We further investigated whether there were differences in teachers' perception of key benefits by programme type and leadership position. Chi-square tests showed that there were no significant differences in any of these five areas of key benefits by programme or leadership position (see Appendix 4-6 for detailed results).

**Summary and Implications:** Overall, the survey results reveal that IB teachers placed the highest importance on opportunities for professional growth and access to diverse educational tools, while international recognition and networking were perceived as less critical benefits. This pattern was consistent regardless of programme status or role within the school. However, the findings also suggest that IB teachers may not yet fully appreciate the philosophy and values of IB as providing "international" education, nor the practical utility of the IB educator network.

**Usefulness of Professional Development:** The survey asked respondents to rate the usefulness of various professional development activities related to IB education in which they participated. The results are presented in Table 4-3 and Figure 4-2.

The types of professional development (PD) that IB teachers most frequently participated in were in the following order: Professional Learning Communities (PLCs) (274 respondents), Training provided by the IB (264 respondents), and Training at Other Schools (261 respondents). The least utilized type of PD was the IB Educators Certificate in Teaching and Learning (IBEC) (161 respondents).

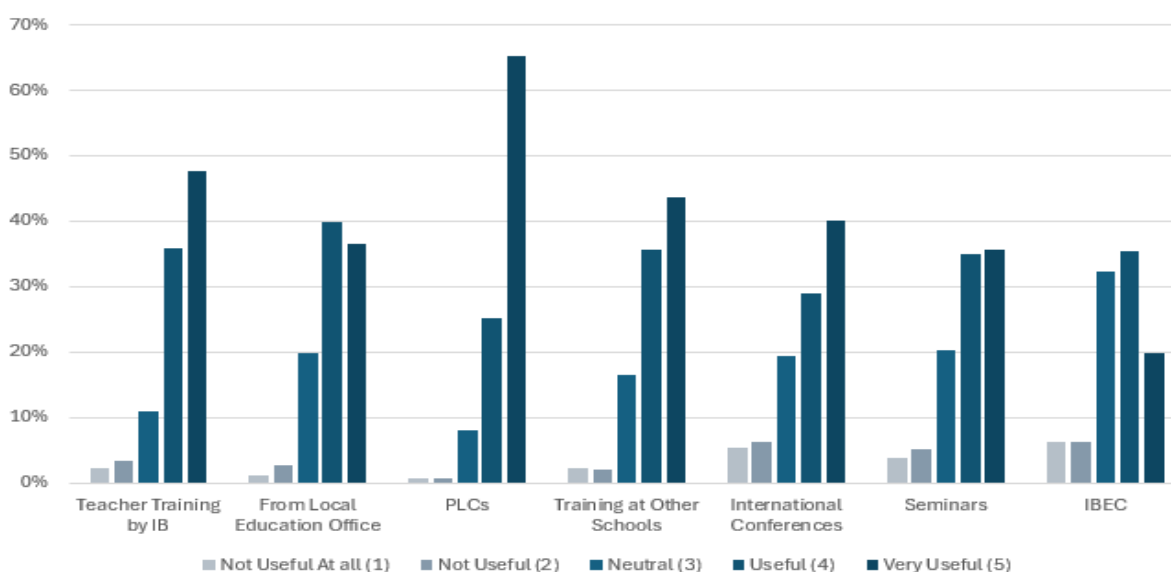
In terms of usefulness of PD, 65% of the teachers who participated in PLCs related to IB education indicated "Very Useful". Teacher training by the IB was also considered highly valuable, with 48% of the respondents finding it "Very Useful" and 36% rating it as "Useful." Training at Other Schools was also well-received, with 44 % of the respondents finding it "Very Useful" and 16 % rating it as "Useful." Local Education Office Training was similarly well-regarded, with 37% of the

respondents finding it as "Very Useful." However, IBEC received mixed feedback. Of the teachers with experience of IBEC, only 20% indicated "Very Useful", 35% indicated "Useful".<sup>17</sup>

We further investigated whether there were differences in teachers' perception of usefulness of professional development through IB education by different groups of teachers. Chi-square tests showed that overall, there were no significant differences in most types of professional development by programme type or role within the school, except for the following three cases: First, as far as IB Teacher Training is concerned, regular teachers viewed it as more useful than teachers' holding leadership positions. Second, for school-based PLCs as professional development, PYP teachers perceived it as more useful than their counterparts in the MYP and the DP. Third, the same pattern was found in Training at Other Schools (see Appendix 4-7 for detailed results).

**Table 4-3. Teachers' Perceived Usefulness of IB Specific Professional Development**

Response	Not Useful At all (1)	Not Useful (2)	Neutral (3)	Useful (4)	Very Useful (5)
Teacher Training by IB	2%	3%	11%	36%	48%
From Local Education Office	1%	3%	20%	40%	37%
PLCs	1%	1%	8%	25%	65%
Training at Other Schools	2%	2%	16%	36%	44%
International Conferences	5%	6%	19%	29%	40%
Seminars	4%	5%	20%	35%	36%
IBEC	6%	6%	32%	35%	20%



**Figure 4-2. Teachers' Perceived Usefulness of IB Specific Professional Development**

<sup>17</sup> The respondents were allowed to indicate multiple choices, according to their experience.

**Summary and Implications:** Overall, school-based PLCs, teacher training provided by the IB, training at other schools, and teacher training provided by the local education office were perceived as useful professional development activities. IBEC, by contrast, received more mixed reviews. These findings show that teachers were actively participating in school-based PLCs and externally provided PD, which contributes to their professional growth, and that they are mostly very satisfied with these experiences. The low usefulness of IBEC suggests the need for improvements in the IBEC curriculum offered by local universities in South Korea. In addition, the lower participation rates for IBEC, IB specific international conferences, and seminars might be due to language barriers and/or high costs involved in attending these activities.

While these patterns were consistent across different groups of teachers, PYP teachers reported more utility of school-based PLC and PD at other schools, which resonates with prior research on PLC. This finding document that in elementary education, there is, in general, less fragmentation of subjects and a more integrated approach to teaching, which makes PLCs more effective compared to secondary education (e.g., Lee & Louis, 2019; Lee, Louis, & Anderson, 2012).

**Pedagogical Autonomy:** We also explored the degree of autonomy that teachers feel they have in various areas related to curriculum planning and instruction. Teachers were asked to rate their level of autonomy on a scale from 1 (no autonomy at all) to 4 (very high autonomy). Overall, teachers reported that they have a moderate level of autonomy in their pedagogical practices. The average across the four areas of pedagogical autonomy was 3.19 with a standard deviation of 0.57. The results are presented in Table 4-4 and Figure 4-3. More specifically, the results demonstrate that teachers feel the most autonomy in their teaching methods, with a mean score of 3.49 and a standard deviation of 0.66. This indicates that, on average, teachers perceive themselves as having significant control over how they deliver their lessons. Next, the amount of homework assigned also received a relatively high autonomy score, with a mean of 3.29 and a standard deviation of 0.68. However, when it comes to specific aspects such as curriculum content, student assessment, and student guidance, teachers reported slightly lower levels of autonomy. The mean scores were 3.11 for curriculum content (SD = 0.86), 3.05 for student assessment (SD = 0.76), and 3.01 for student guidance (SD = 0.80). These lower scores suggest that teachers feel somewhat less autonomy in these areas compared to others.

**Table 4-4. Teachers’ Perceived Pedagogical Autonomy**

Areas	Mean	SD
Teaching methods	3.49	0.66
The amount of homework	3.29	0.68
<b>AVG.</b>	<b>3.19</b>	<b>0.57</b>
Curriculum content	3.11	0.86
Student assessment	3.05	0.76
Student guidance	3.01	0.80

**Fig 4-3. Teachers’ Perceived Pedagogical Autonomy**

Note. N=283. scale from 1 (no autonomy at all) to 4 (very high autonomy).

In conjunction with the results above, we also analyzed the average levels of pedagogical autonomy perceived among teachers based on different characteristics, including IB programme type and leadership position. The results are presented in Table 4-5.

The results of the analysis indicate several significant differences in perceived pedagogical autonomy across various groups of teachers. When examining different IB programmes, teachers involved in the PYP perceived significantly higher autonomy (M = 3.31, SD = 0.53) compared to those in MYP (M = 3.12, SD = 0.58), as evidenced by a significant post-hoc difference (F = 3.81, p < .05). Teachers in the DP reported similar levels of autonomy (M = 3.12, SD = 0.59) to those in the MYP. Regarding teachers' leadership position, there was no significant difference in perceived autonomy between regular teachers (M = 3.16, SD = 0.58) and those holding leadership roles (M = 3.24, SD = 0.55), with a t-value of -1.03 indicating a lack of statistical significance.

**Table 4-5. Teachers' Perceived Pedagogical Autonomy by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=283)	PYP	3.31	0.53	100	3.81*	PYP> MYP
	MYP	3.12	0.58	122		
	DP	3.12	0.59	61		
Leadership position (N=283)	Teachers	3.16	0.58	187	-1.03	
	Teachers in leadership positions	3.24	0.55	96		
Total of IB teachers		3.19	0.57	283		

\* p<.05, \*\* p<.01, \*\*\* p<.001, scale from 1 (no autonomy at all) to 4 (very high autonomy).

**Summary and Implications:** Overall, while teachers generally perceive a reasonable level of autonomy in their work, especially in teaching methods and homework, there was less perceived autonomy in areas like curriculum content, student assessment, and student guidance. In addition, our analysis suggests that the perceptions of autonomy among teachers varied significantly based on IB programme. Regarding the higher autonomy among PYP teachers, it is likely due to the cross-curricular approach and the broader framework of the programme. This resonates with the fact that there is no mandated curriculum content for PYP and MYP whereas DP has its own specific curriculum content; PYP and MYP teachers continue to use the Korean National Curriculum. Nevertheless, unlike PYP teachers, the reasons MYP teachers exhibited relatively low pedagogical autonomy, according to our qualitative research, are partly because, in the process of reconstructing the Korean curriculum to align with the IB framework, there are instances where forced adjustments of certain subject contents are needed to fit into key concepts in the MYP framework. The mandatory implementation of Interdisciplinary Units (IDU) also contributes to this issue.

The relatively lower autonomy in assessment compared to the other areas of pedagogical autonomy may be attributed to the strong standardization required by the DP. In contrast, PYP and MYP teachers have the flexibility to design assessments in their own way, administer them when they choose, determine the number of assessments, and focus on what they believe is important. The only IB-requirement in the PYP and MYP is that teachers assess the specific skills outlined in the mandated marking criteria (Criteria A-D for each subject); beyond that, teachers

have full autonomy. Considering this, the relatively lower autonomy in assessment appears to be closely related to the more standardized nature of the DP. While these standardized characteristics aim to ensure consistency and validity in evaluating educational outcomes of IB students across different parts of the world, they may represent a trade-off where increased standardization for reliability and validity in IB assessment leads to reduced teacher autonomy.

**Variety of Assessment:** We also explored the frequency with which teachers use various methods to assess student learning. Teachers rated how often they employed each method on a scale from 1 (never or rarely) to 4 (always). The results are presented in Table 4-6 and Figure 4-4.

The results indicate that teachers most frequently utilized observation and immediate feedback as an assessment method, with a mean rating of 3.22 (SD = 0.67), suggesting that this approach was used regularly in their teaching practices. This is closely followed using qualitative feedback (e.g., criteria-based feedback), which also scored relatively high with a mean of 3.17 (SD = 0.73). On average, across all methods, the mean rating was 3.04 (SD = 0.55), indicating a consistent application of these assessment techniques on a regular basis.

Teacher developed assessment, which focuses on evaluating teachers' own professional growth, had a mean of 3.00 (SD = 0.80), reflecting slightly less frequent use. Student self-assessment was the least frequently employed method, with a mean rating of 2.77 (SD = 0.78), suggesting that while still used, it is not as common as the other methods.

**Table 4-6. Teachers' Use of Various Assessment Methods**

Statements	Mean	SD
Observation and immediate feedback	3.22	0.67
Qualitative feedback	3.17	0.73
<b>AVG.</b>	3.04	0.55
Teacher developed assessment	3.00	0.80
Student self-assessment	2.77	0.78

**Figure 4-4. Teachers' Use of Various Assessment Methods by Teachers**

Note. N=283, scale from 1 (never or rarely) to 4 (always)

In line with the analysis above, the survey further examined the frequency of assessment methods based on different characteristics such as IB programme type and leadership position. The results are presented in Table 4-7.

The analysis revealed some significant differences in the frequency of assessment methods based on teacher characteristics. Regarding whether to hold leadership positions, no significant difference was found between regular teachers (M = 3.02, SD = 0.54) and those with leadership positions (M = 3.08, SD = 0.57), suggesting that job role does not significantly influence the frequency of assessment method usage. When examining different IB programmes, a significant difference was found. Teachers in PYP reported a higher frequency of using various assessment methods (M = 3.13, SD = 0.53) compared to those in DP (M = 2.91, SD = 0.58), with this difference being statistically significant (t = 3.20, p < .05). MYP teachers (M = 3.03, SD = 0.54) fell in between but did not differ significantly from either group.

**Table 4-7. Teachers' Use of Various Assessment Methods by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=283)	PYP	3.13	0.53	100	3.20*	PYP>DP
	MYP	3.03	0.54	122		
	DP	2.91	0.58	61		
Leadership position (N=283)	Teachers	3.02	0.54	187	-0.90	
	Teachers in Leadership Positions	3.08	0.57	96		
Total of IB teachers		3.04	0.55	283		

\* p<.05, \*\* p<.01, \*\*\* p<.001, scale from 1 (never or rarely) to 4 (always).

**Summary and Implications:** Overall, various assessments are often utilized by IB teachers. However, it is worth noting the relatively lower use of student self-assessment methods given the growing importance of student self-assessment as learning (Earl, 2003). Additionally, the less frequent use of teacher-developed assessment resonates with the earlier finding that teachers feel relatively less autonomy in assessments.

The finding that PYP teachers use more diverse methods in assessment, while DP teachers use the least variety, may be related to the characteristic that the DP is a terminal programme linked to externally mandated assessments. This characteristic could lead to the use of relatively less diverse assessment methods given the circumstances of preparing for externally prescribed assessments (Hallinger et al., 2010). Nonetheless, it is an encouraging finding that, on average, IB teachers use a variety of assessment methods.

**Challenges in Programme Implementation:** In relation to Research Question 3, we first sought to explore challenges and issues associated with implementing IB programmes, asking respondents to indicate their level of agreement with various statements. The responses were rated on a scale from 1 (strongly disagree) to 6 (strongly agree). On average, the overall difficulty rating across all statements was 4.27 (SD = 0.91), indicating a generally high level of perceived difficulties. The results are presented in Table 4-8 and Figure 4-5.

Specifically, the most significant challenges perceived by teachers included the burden of dual assessments (i.e., assessments required by the IB programmes and the national curriculum) and the high cost of implementing IB (e.g., annual fee, cost for mandatory PD), both receiving the highest mean score of 4.96.

**Table 4-8. Teachers' Perceived Challenges in Programme Implementation**

Statements	Mean	SD
Burden of dual assessments	4.96	1.40
High cost of implementing IB	4.96	1.27
Qualitative criteria-based assessments	4.82	1.26
Collaborative assessments with other teachers	4.80	1.32
Implementation within the national education system	4.76	1.39
Disadvantageous for Korean college admissions	4.67	1.31
Sharing materials with external stakeholders	4.64	1.32
Compatibility with the NEIS system	4.56	1.45
Reference materials	4.48	1.41
Language barriers	4.44	1.44
<b>AVG.</b>	<b>4.27</b>	<b>0.91</b>
Information management system of student record	4.26	1.56
Collaborating with teachers	4.15	1.56
Ensuring acquisition of basic knowledge by students	4.02	1.58
Unclear assessment criteria	3.90	1.46
Overly broad scope of subject contents	3.79	1.43
Applying IB in the Korean context	3.78	1.45
High level of subject content	3.62	1.43
Overly broad scope of assessment	3.62	1.40
High level of assessment standards	3.60	1.44
Teacher assessment capabilities	3.52	1.34

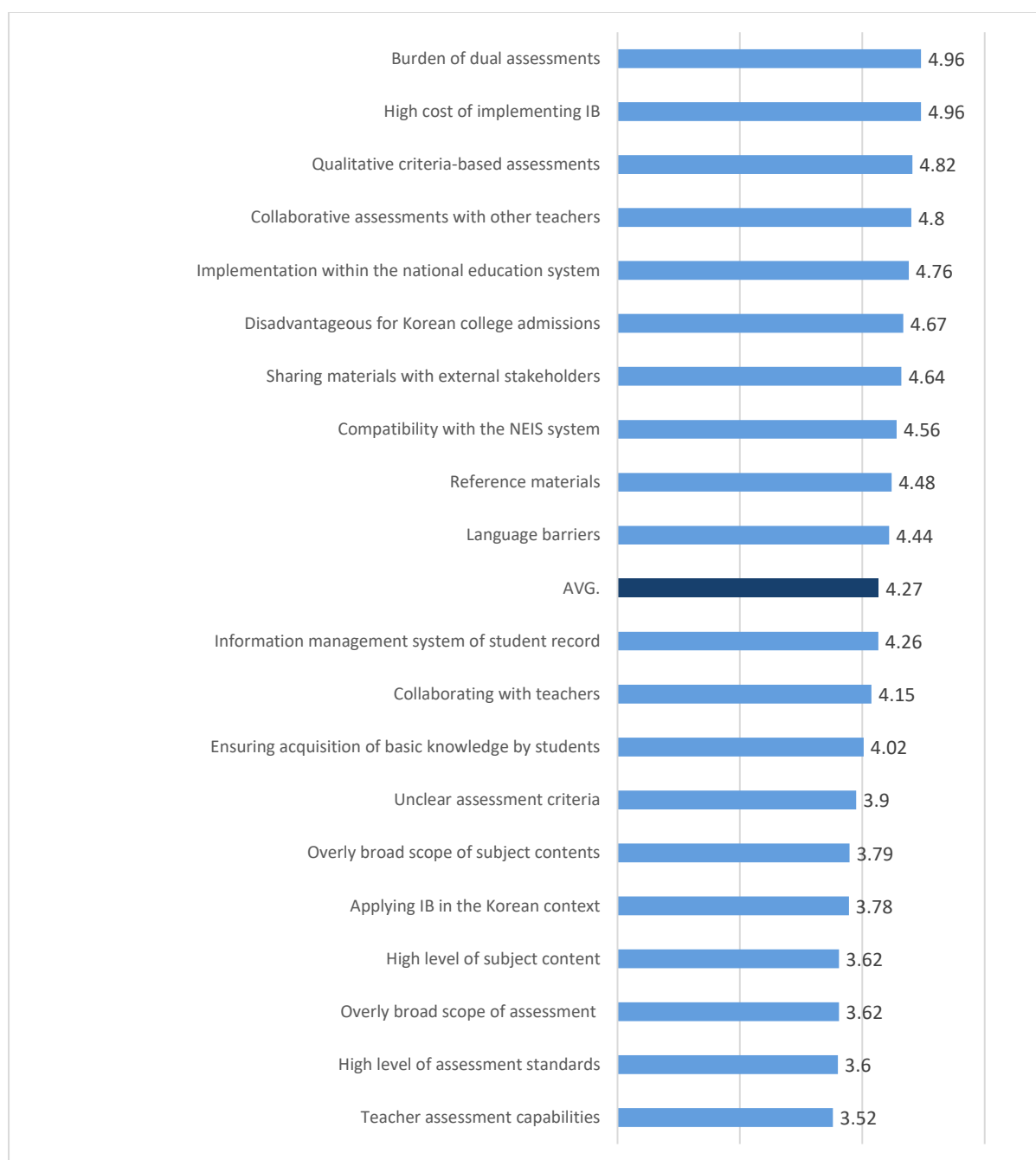
Note. N=290, scale from 1 (strongly disagree) to 6 (strongly agree).

Other notable challenges included conducting and marking qualitative criteria-based assessments ( $M = 4.82$ ,  $SD = 1.26$ ) and collaborative assessments with other teachers ( $M = 4.80$ ,  $SD = 1.32$ ), both of which were also rated high. Additionally, teachers expressed concerns about the challenges of implementing IB within the national education system ( $M = 4.76$ ,  $SD = 1.39$ ) and the perceived disadvantages of IB students for college admissions to Korean Universities ( $M = 4.67$ ,  $SD = 1.31$ ).

Issues related furthermore to sharing materials with external stakeholders ( $M = 4.64$ ,  $SD = 1.32$ ) and compatibility with the National Education Information System (NEIS) ( $M = 4.56$ ,  $SD = 1.45$ ) were also highlighted as significant obstacles. Teachers also reported difficulties with the lack of quality reference materials ( $M = 4.48$ ,  $SD = 1.41$ ) and language barriers ( $M = 4.44$ ,  $SD = 1.44$ ). Other concerns, although rated slightly lower, included the use of the temporary information

management system of IB student records ( $M = 4.26$ ,  $SD = 1.56$ ), collaboration with other teachers ( $M = 4.15$ ,  $SD = 1.56$ ), and ensuring acquisition of basic knowledge by students ( $M = 4.02$ ,  $SD = 1.58$ ).

Finally, teachers expressed some issues regarding unclear assessment criteria ( $M = 3.90$ ,  $SD = 1.46$ ), the overly broad scope of subject content ( $M = 3.79$ ,  $SD = 1.43$ ), and the application of IB in the Korean context ( $M = 3.78$ ,  $SD = 1.45$ ). Challenges related to the perceived high level of subject content ( $M = 3.62$ ,  $SD = 1.43$ ), overly broad scope of assessment and evaluation ( $M = 3.62$ ,  $SD = 1.40$ ), high assessment standards ( $M = 3.60$ ,  $SD = 1.44$ ), and teacher assessment capabilities ( $M = 3.52$ ,  $SD = 1.34$ ), pointing to areas where additional support or resources may be beneficial.



**Figure 4-5. Teachers' Perceived Challenges in Programme Implementation**



We further analyzed the overall perceived level of challenges and issues in implementing IB programmes across different characteristics such as IB programme and teacher position. The results are presented in Table 4-9. The results showed that there were no statistically significant differences in teachers' perception across the groups noted above.

**Table 4-9. Teachers' Perceived Challenges in Programme Implementation by Teachers' Characteristics**

Category	Subcategory	Mean	SD	N	t/F
Programmes (N=290)	PYP	4.27	0.90	105	1.05
	MYP	4.33	0.92	124	
	DP	4.13	0.90	61	
Leadership position (N=290)	Teachers	4.31	0.90	191	1.04
	Teachers in Leadership Position	4.19	0.93	99	

\* p<.05, \*\* p<.01, \*\*\* p<.001, scale from 1 (strongly disagree) to 6 (strongly agree).

**Summary and Implications:** The findings show that teachers perceive challenges and issues in implementing IB education, particularly regarding costs for implementation, dual assessments, and integration within the national curriculum. Our qualitative data highlights that the high costs associated with implementing an IB programme pose a significant challenge. Specifically, concerns have been raised about the sustainability of IB programmes due to the annual membership fees and the expenses related to professional development required by the IB. Teachers expressed worries about potential funding cuts or the discontinuation of the programme if the local education authority's policies change. This is a concern because the policies can shift with each new superintendent, who is elected every four years. Additionally, other challenges identified in the survey data were also reflected in the qualitative interview findings. Issues related to dual assessments, the national curriculum, and the assessment recording system were salient in our interview excerpts. Combining the findings from both qualitative and quantitative data, it can be concluded that the challenges and issues noted above were occurring not only in the nine schools in our qualitative studies but also across 18 schools in general. These findings suggest that policy measures are needed at both local education authority and central government levels (given that the issues are relation to the "national" curriculum and exam) that can address the prevailing challenges and issues in implementing IB programmes.

**Work-Related Stress:** We explored the extent to which various stress factors impact teachers in their current roles, with responses rated on a scale from 1 (no impact) to 4 (significant impact). The results are presented in Table 4-10.

On average, the 14 stress factors drawn from the OECD TALIS 2018 survey, and our qualitative study findings, have a moderate overall impact, with an average mean score of 2.53 (SD = 0.63). Among the various stress factors, excessive lesson preparation received the highest level of perceived impact by teachers; the mean score of 3.31 (SD = 0.85). This suggests that preparing lessons is a considerable source of stress for many teachers. Following this, both the burden of

grading and excessive administrative tasks also ranked highly, each with a mean score of 3.13, indicating that these tasks too significantly contribute to work-related stress.

Excessive teaching load (M = 3.07, SD = 0.96) and the responsibility for student achievement (M = 2.97, SD = 0.91) were also notable stress factors, though slightly less impactful than the top three outlined above. Teachers reported moderate stress from applying requirements directed by the Education Office (M = 2.85, SD = 1.02) and ambiguity in interpreting the IB framework (M = 2.72, SD = 1.01), reflecting challenges in navigating institutional demands and specific programme expectations.

On the lower end of the scale, factors like parent complaints (M = 2.61, SD = 1.12) still have a moderate impact, but stress related to maintaining discipline in the classroom (M = 2.48, SD = 1.06) and reconstructing lessons for special education students (M = 2.04, SD = 1.03) is less pronounced.

The least impactful stress factors include differences from parental educational perspectives (M = 1.94, SD = 1.00), additional work due to teacher shortages (M = 1.83, SD = 1.01), isolation from the local community (M = 1.73, SD = 0.94), and violence from students (M = 1.55, SD = 0.86). These factors, while present, appear to have a lower overall impact on the teachers surveyed.

**Table 4-10. Teachers' Perceived Stress Factors**

Statements	Mean	SD
Excessive lesson preparation	3.31	0.85
Burden of grading	3.13	0.99
Excessive administrative tasks	3.13	0.95
Excessive teaching load	3.07	0.96
Responsibility for student achievement	2.97	0.91
Applying requirements from Education Office	2.85	1.02
Ambiguity in interpreting IB framework	2.72	1.01
Parent complaints	2.61	1.12
<b>AVG.</b>	<b>2.53</b>	<b>0.63</b>
Maintaining discipline in the classroom	2.48	1.06
Reconstructing lessons for special education students	2.04	1.03
Difference form parental educational perspectives	1.94	1.00
Additional work due to teacher shortages	1.83	1.01
Isolation from local community	1.73	0.94
Violence from students	1.55	0.86

Note. N=282, scale from 1 (no impact) to 4 (significant impact).

Building on the previous analysis, we further examined the impact of various stress factors on teachers based on different characteristics such IB programme type and leadership position. The results are presented in Table 4-11.

When comparing different IB programmes, PYP teachers reported a higher stress level (M = 2.62, SD = 0.66) followed by MYP teachers (M = 2.54, SD = 0.63), and DP teachers (M = 2.33, SD = 0.57).

The difference between PYP and DP was statistically significant ( $F = 4.11, p < .05$ ). Teachers holding leadership positions reported slightly higher stress levels ( $M = 2.63, SD = 0.65$ ) compared to regular teachers ( $M = 2.47, SD = 0.62$ ), although this difference was not statistically significant ( $t = -1.90$ ).

**Table 4-11. Teachers' Perceived Stress Factors by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=282)	PYP	2.62	0.66	100	4.11*	PYP>DP
	MYP	2.54	0.63	121		
	DP	2.33	0.57	61		
Leadership position (N=282)	Teachers	2.47	0.62	186	-1.90	
	Teachers in Leadership Position	2.63	0.65	96		
Total of IB teachers		2.53	0.63	282		

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , scale from 1 (no impact) to 4 (significant impact).

**Summary and Implications:** Overall, IB teachers reported that the 14 stress factors identified above had a moderate impact on their work-related stress, with an average mean score of 2.53 ( $SD = 0.63$ ). Among the various stress factors, excessive lesson preparation was the most common stressor. Following this, both the burden of grading and excessive administrative tasks also ranked highly. These findings suggest that policy support is needed for reducing administrative workload and promoting teachers' well-being. To work effectively for lesson preparation, we suggest that PLC should focus more on sharing resources and lesson materials and collaborating on lesson planning. Regarding the burden of grading and grade-related administrative tasks, utilizing edu-technology could be considered. Given that quite many public IB schools in South Korea were using Google Drive for managing student learning activities and lesson plans, systematic support for the utilization of ICT would be desirable. Finally, the significant group differences in work-related stress by programme warrant further investigation.

**Issues regarding IB Programme Implementation in Korea:** Respondents were asked to indicate their level of agreement with statements specific to key issues related to the implementation of IB programmes, using a scale from 1 (strongly disagree) to 6 (strongly agree). The results are presented in Table 4-12 and Figure 4-6.

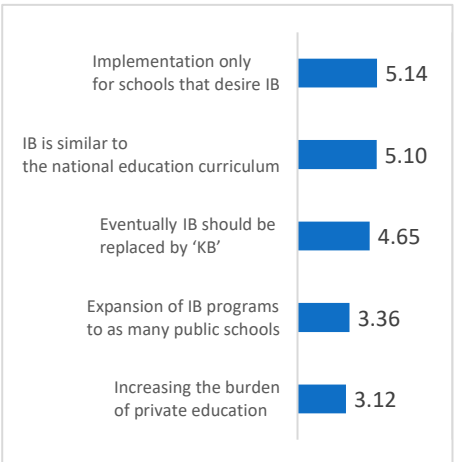
The highest level of agreement was found with the statement that "IB programmes should only be implemented in schools that want to pursue it", with a mean score of 5.14 ( $SD = 1.08$ ). This suggests a strong consensus that IB implementation should be optional and based on the willingness of schools to adopt the programmes. Teachers also strongly agreed that the educational goals and desired outcomes of the IB programmes are similar to those of the national curriculum, with a mean score of 5.10 ( $SD = 0.96$ ). This reflects a perception that the IB and the national curriculum share common educational objectives from elementary through to high school.

The statement provided in the survey questionnaire that IB programmes should eventually be replaced by a so-called Korean Baccaulaureate (KB)<sup>18</sup> received a mean score of 4.65 (SD = 1.52), indicating moderate agreement. This suggests that there is some support for developing a national alternative to the IB.

There were more varied opinions as to whether IB programmes should be introduced in as many public schools as possible, with a mean score of 3.36 (SD = 1.52). This indicates a lower level of agreement, suggesting that respondents may have concerns about widespread implementation of the IB. The statement that “the introduction of the IB increases students' and parents' burden of private supplementary tutoring” received the lowest level of agreement, with a mean score of 3.12 (SD = 1.43). This suggests that while some respondents perceive an increased burden of private tutoring due to the IB, this concern is not generally shared.

**Table 4-12. Teachers’ Perception of Issues Related to Programme Implementation**

Statements	Mean	SD
The IB should only be implemented in schools that want to pursue it.	5.14	1.08
The educational goals and desired outcomes of the IB are similar to those of the national curriculum.	5.10	0.96
The IB should eventually be replaced by a so-called Korean Baccaulaureate (KB).	4.65	1.52
The IB should be introduced in as many public schools as possible.	3.36	1.52
The introduction of the IB increases students' (and parents') burden of private tutoring.	3.12	1.43



**Fig 4-6. Teachers’ Perception of Issues Related to Programme Implementation**

Notes. N=295, scale from 1 (strongly disagree) to 6 (strongly agree).

We further examined how teachers' perceptions of these issues vary according to which IB programme they are involved in. The results are presented in Table 4-13.

In relation to the statement, "The IB should only be implemented in schools that want to pursue it," teachers of the PYP reported the highest level of agreement (Mean = 5.27, SD = 1.06), followed by those in the MYP and DP, both with a mean of 5.06. However, these differences were not statistically significant ( $F = 1.27$ ).

For the statement, "The educational goals and desired outcomes of the IB are similar to those of the national curriculum," PYP teachers again showed the highest agreement (Mean = 5.24, SD =

<sup>18</sup> The KB is still not a concrete entity, and some education policymakers argue that the current curriculum and assessment system of South Korea should embrace IB style education, but tailor it to the Korean context, which can be called the KB.

0.89), with MYP and DP teachers reporting slightly lower means of 5.05 and 4.97, respectively. Despite the observed differences, they were not statistically significant ( $F = 1.9$ ).

The statement, "The IB should eventually be replaced by a so-called Korean Baccalaureate (KB)," revealed a significant difference in responses ( $F = 5.58, p < .01$ ). PYP teachers were more supportive of this idea (Mean = 4.86, SD = 1.57) compared to MYP teachers (Mean = 4.75, SD = 1.34) and especially DP teachers (Mean = 4.10, SD = 1.68), though the post-hoc analysis did not reveal specific pairwise differences as statistically significant.

For the statement, "The IB should be introduced in as many public schools as possible," the level of agreement was similar across all groups, with PYP teachers showing slightly higher agreement (Mean = 3.44, SD = 1.64) compared to MYP (Mean = 3.43, SD = 1.55) and DP teachers (Mean = 3.10, SD = 1.18), but these differences were not significant ( $F = 1.21$ ).

Finally, regarding the statement, "The introduction of IB programmes increases students' (and parents') burden of private tutoring," PYP teachers expressed the most concern (Mean = 3.21, SD = 1.63), followed closely by MYP teachers (Mean = 3.17, SD = 1.38). DP teachers were less concerned (Mean = 2.85, SD = 1.10), though these differences did not reach statistical significance ( $F = 1.37$ ).

**Table 4-13. Teachers' Perceived Issues Related to Programme Implementation by Teacher Characteristics**

Statements	Prog.	Mean	SD	N	F	Post
The IB should only be implemented in schools that want to pursue it.	PYP	5.27	1.06	109	1.27	
	MYP	5.06	1.12	124		
	DP	5.06	1.02	62		
The educational goals and desired outcomes of the IB are similar to those of the national curriculum.	PYP	5.24	0.89	109	1.9	
	MYP	5.05	0.99	124		
	DP	4.97	1.01	62		
The IB should eventually be replaced by a so-called Korean Baccalaureate (KB).	PYP	4.86	1.57	109	5.58**	n.s.
	MYP	4.75	1.34	124		
	DP	4.10	1.68	62		
The IB should be introduced in as many public schools as possible.	PYP	3.44	1.64	109	1.21	
	MYP	3.43	1.55	124		
	DP	3.10	1.18	62		
The introduction of the IB increases students' (and parents') burden of private tutoring.	PYP	3.21	1.63	109	1.37	
	MYP	3.17	1.38	124		
	DP	2.85	1.10	62		
Total		5.14	1.08	295		

Note. scale from 1 (strongly disagree) to 6 (strongly agree).

**Summary and Implications:** Overall, there was significant support for the idea that IB programmes are well aligned with national education goals and outcomes. Regarding this, our

qualitative data shows that many IB teachers viewed the 2022 Korean National Curriculum as similar to the IB programmes in that both focus on cultivating student competencies and are concept-based curricula. This may partially explain the survey finding. In addition, IB teachers largely agreed with the idea that IB programmes should be implemented selectively in schools that choose to adopt them; there was some interest in eventually developing a national alternative (KB) to IB programmes.

However, there was a moderate level of disagreement about the idea about the widespread adoption of IB programmes in public schools. DP teachers disagreed with the idea, more than MYP and PYP teachers. Based on our qualitative data analysis, this seems to resonate with the concern for disconnection between the DP and the SATs (the college entrance exam). Additionally, teachers were less concerned about the burden for students and parents in relation to private supplementary tutoring, stemming from the introduction of the IB in public schools.

Finally, there were some variations in perceptions about these five issues among teachers. Overall, PYP teachers showed the highest level of agreement with all the issues, followed by MYP and DP teachers, respectively, although these differences were not statistically significant.

**Changes Attributed to IB Programme Implementation:** To seek answers for Research Question 5, we first explored respondents' level of agreement with statements about what IB education has changed teachers' practices and schools, using a scale from 1 (strongly disagree) to 6 (strongly agree). Table 4-14 and Figure 4-7 present the results.

Teachers generally had a positive view of how IB education has changed their practices and schools, with an average agreement score of 5.10 (SD = 0.90). This suggests that the implementation of IB programmes is seen as having a significant positive impact on various aspects of the school environment.

The highest levels of agreement were observed for statements related to teachers' professionalism and teaching practices, both with a mean score of 5.34, suggesting that IB education is perceived to have greatly enhanced the professional standards and instructional methods of teachers. Similarly, the development of PLC (Mean = 5.30, SD = 1.03) and the relationship between teachers and students (Mean = 5.29, SD = 0.99) were also rated highly, indicating a positive shift in collaboration and interaction within the school environment. Other areas where teachers reported strong agreement include teachers' expertise in assessment (Mean = 5.26, SD = 0.98) and student collaboration and communication (Mean = 5.25, SD = 1.00). These results suggest that IB education is seen as enhancing both the assessment capabilities of teachers and the collaborative skills of students.

Slightly lower, but still positive, were the ratings for instructional autonomy (Mean = 5.09, SD = 1.24), the essence of education and instruction (Mean = 4.96, SD = 1.29), and integrative education (Mean = 4.92, SD = 1.20). These scores indicate that while IB education is viewed favorably in these areas, there is greater variation in responses.

The areas with the lowest levels of agreement, although still generally positive, include students' overall satisfaction with IB education (Mean = 4.91, SD = 1.14), teachers' autonomy in assessment

(Mean = 4.87, SD = 1.33), reduced competition between students (Mean = 4.79, SD = 1.31), and the reliability and validity of assessments (Mean = 4.79, SD = 1.23). These scores indicate that there is potential for enhancement in these areas, as respondents perceive a somewhat less significant impact from IB education.

**Table 4-14. Teachers' Perceived Changes Due to IB Programme Implementation**

Statements	Mean	SD
Teachers' professionalism	5.34	0.94
Teaching practices	5.34	0.99
Professional Learning Communities	5.30	1.03
Relationship b/w teachers and students	5.29	0.99
Teachers' expertise in assessment	5.26	0.98
Student collaboration/Communication	5.25	1.00
Teachers' dedication	5.23	1.03
<b>AVG.</b>	<b>5.10</b>	<b>0.90</b>
Instructional autonomy	5.09	1.24
The essence of education and instruction	4.96	1.29
Integrative education	4.92	1.20
Students' overall satisfaction	4.91	1.14
Teachers' autonomy in assessment	4.87	1.33
Reduced competition	4.79	1.31
Reliability and validity of assessments	4.79	1.23



**Fig 4-7. Teachers' Perceived Changes Due to IB Programme Implementation**

Note. N=297, scale from 1 (strongly disagree) to 6 (strongly agree). For specific each statement, see Question 2 of the Teacher Survey Questionnaire in Appendix 4-1.

We further analyzed teachers' perceptions of what IB education has changed their practices and schools, focusing on differences based on IB programme type and leadership position. The results are presented in Table 4-15.

When examining the differences among IB programs, PYP teachers reported the highest positive perceptions (Mean = 5.27, SD = 0.84), followed by DP teachers (Mean = 5.14, SD = 0.67). MYP teachers reported the lowest mean score (Mean = 4.93, SD = 1.01). The differences were statistically significant ( $F = 4.43, p < .05$ ), with post-hoc analysis indicating that PYP and DP teachers have significantly higher perceptions of positive change compared to MYP teachers. Regarding leadership position, teachers in leadership roles reported significantly higher perceptions of the positive impact of IB education (Mean = 5.28, SD = 0.78) compared to regular

teachers (Mean = 5.00, SD = 0.94). This difference was also statistically significant ( $t = -2.56$ ,  $p < .05$ ), indicating that those in leadership positions perceive greater benefits from IB programme implementation.

**Table 4-15. Teachers' Perceived Changes Due to IB Programme Implementation by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=297)	PYP	5.27	0.84	109	4.43*	PYP=DP >MYP
	MYP	4.93	1.01	125		
	DP	5.14	0.67	63		
Leadership position (N=297)	Teachers	5.00	0.94	196	2.56*	
	Teachers in leadership positions	5.28	0.78	101		
IB teachers Total		5.10	0.90	297		

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , . scale from 1 (strongly disagree) to 6 (strongly agree).

**Summary and Implications:** Overall, our findings demonstrate teachers' positive views of a range of changes brought about by implementing IB programmes. In particular, teachers were highly positive about the impact of the implementation of IB programmes in enhancing professionalism, teaching practices, and collaborative environments within schools. These results resonate with a recent IB commissioned research of IB teaching professionals conducted in eight societies (see Lee et al., 2022a). Some areas which may require further improvement include student satisfaction, teachers' autonomy in assessment, competition between students, and the reliability and validity of assessments. Although teachers generally held a moderately positive view of these areas, they were less enthusiastic about some aspects. Notably, the less positive perceptions, such as those related to teachers' autonomy in assessment, align with earlier findings discussed in this chapter about teachers' autonomy in assessment.

When it comes to comparisons by IB programmes and teachers' leadership positions, there were some variations in teacher perceptions. It is interesting that PYP teachers reported perceiving more positive changes, as previous results suggested that they experienced higher levels of work-related stress. This could be interpreted as their dedication to implementing their respective IB programme, which in turn makes them more aware of changes in their practices and schools. Alternatively, the relatively lower perception of positive changes among MYP teachers could be related to another previous result where these teachers reported more challenges and issues in implementing their IB programme. Additionally, the more positive perceptions among teachers holding leadership positions might be attributed to their sense of ownership, responsibility, or their role as stakeholders in the implementation of IB programmes, compared to regular teachers. This may have led them to perceive more acutely the positive changes in their practices and schools. Lastly, despite these differences, it should be noted that overall, all teachers largely agree that the implementation of the IB programmes has led to positive change in their practices and schools.



**Engagement in PLC:** Teachers’ engagement in school-based professional learning communities (PLCs) is a key organizational mechanism that has been proven to sustain school improvement across various educational systems (Lee, Kim, Mo, & Walker, 2020; Lee & Kim, 2016; Stoll & Louis, 2006). With this in mind, we examined how frequently teachers engage in PLC activities at their current schools, using a scale from 0 (never), 1 (once a year or less), 2 (2-4 times a year), 3 (5-10 times a year), 4 (1-3 times a month), and 5 (once a week or more). The results are presented in Table 4-16 and Figure 4-8.

The analysis of how frequently teachers engage in PLC activities at their current schools reveals a generally moderate level of participation, with an overall average mean score of 3.37 (SD = 0.91) where “3” indicates 5 to 10 times a year. The most frequently reported activity was attending team meetings, with a high mean score of 4.43 (SD = 0.97), suggesting that this is a routinized practice among teachers to some extent. Exchanging teaching materials with colleagues (Mean = 4.03, SD = 1.21) and engaging in collaborative professional learning (Mean = 3.98, SD = 1.25) were also relatively frequent activities, indicating reasonably frequent collaboration and resource sharing among teachers. Other activities, such as collaborating with colleagues to establish common assessment criteria, were also regularly practiced (Mean = 3.94, SD = 1.28), though with slightly less frequency.

In contrast, activities like observing other teachers' classes and providing feedback (Mean = 2.69, SD = 1.12), participating in joint activities (Mean = 2.34, SD = 1.58), and team teaching (Mean = 2.25, SD = 2.10) were less frequent, indicating that these forms of collaboration occur less often. Participating in discussions on instructions, with a mean of 3.33 (SD = 1.52), falls closer to the average, showing moderate engagement.

**Table 4-16. Teachers’ Engagement in PLC**

Statements	Mean	SD
Attending team meetings	4.43	0.97
Exchanging teaching materials with colleagues	4.03	1.21
Engaging in collaborative professional learning	3.98	1.25
Collaborating with colleagues to establish common assessment criteria	3.94	1.28
<b>AVG.</b>	<b>3.37</b>	<b>0.91</b>
Participating in discussions for instructions	3.33	1.52
Observing other teachers' classes and providing feedback	2.69	1.12
Participating in joint activities	2.34	1.58
Team teaching	2.25	2.10

Activity	Mean Score
Attending team meetings	4.43
Exchanging teaching materials with colleagues	4.03
Engaging in collaborative professional learning	3.98
Collaborating with colleagues to establish common assessment criteria	3.94
AVG.	3.37
Participating in discussions for instructions	3.33
Observing other teachers' classes and providing feedback	2.69
Participating in joint activities	2.34
Team teaching	2.25

**Fig 4-8. Teachers’ Engagement in PLC**

Note. N=287. scale from 0 (never), 1 (once a year or less), 2 (2-4 times a year), 3 (5-10 times a year), 4 (1-3 times a month), and 5 (once a week or more).

We further analyzed how frequently teachers participated in various collaborative activities, focusing on differences based on IB programme type and leadership position. The results are presented in Table 4-17.

The analysis revealed that significant differences were observed across the IB programmes. Teachers in the PYP reported the highest frequency of participation in collaborative activities (Mean = 3.84, SD = 0.84), which was higher than those in the MYP (Mean = 3.21, SD = 0.82) and DP (Mean = 2.91, SD = 0.86) programs. The differences were statistically significant ( $F = 27.44$ ,  $p < .001$ ), with post-hoc analysis showing that PYP teachers were more engaged in collaborative activities than their MYP and DP counterparts. However, there was no significant difference by whether teachers hold a leadership position.

**Table 4-17. Teachers’ Engagement in PLC by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=287)	PYP	3.84	0.84	102	27.44***	PYP>MYP =DP
	MYP	3.21	0.82	124		
	DP	2.91	0.86	61		
Leadership position (N=287)	Teachers	3.31	0.92	190	-1.70	
	Teachers w/ Leadership Position	3.50	0.90	97		
IB teachers Total		3.37	0.91	287		

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . scale from 0 (never), 1 (once a year or less), 2 (2-4 times a year), 3 (5-10 times a year), 4 (1-3 times a month), and 5 (once a week or more).

**Summary and Implications:** Across the 18 schools, there were routinized, collaborative practices taking place within the context of PLCs. Teachers actively engaged in collaborative activities such as team meetings, exchanging teaching materials, collaborative professional learning, and collaborating for assessments. In relation to the findings, it should be noted that attending team meetings, the most frequently reported activity, is an IB requirement; schools must provide evidence of this to maintain their status as an IB school. Similarly, engaging in collaborative professional learning is also an IB requirement.

At the same time, however, certain activities, especially those requiring deeper collaboration like de-privatized practices (e.g., observing others’ teaching), joint activities and team teaching, occurred less frequently. This corresponds with findings in other IB focused research (Lee et al., 2022a; Lin et al., 2018) as well as PLC literature, mostly targeting non-IB teachers (e.g., Lee, Louis, & Anderson, 2012; Lee & Kim, 2016). Nonetheless, this suggests areas where schools might focus to further enhance collaborative professional development.

In addition, the group comparisons found that PYP teachers were most actively involved in PLCs, followed by teachers in the MYP and the DP. This finding aligns with existing IB research (e.g., Lee et al., 2022a) and PLC literature (Lee et al., 2012). One reason for this pattern can be attributed to the fact that primary school teachers teach multiple subjects where more collaborations naturally occur or are required, while secondary school teachers collaborate and teach based on

their own subject. This holds true for IB teachers as well. In addition, the transdisciplinary approach of the PYP could be another reason. Similarly, the MYP follows this trend due to its built-in mechanisms for interdisciplinary collaboration such as the IDU, and its emphasis on interdisciplinary approaches, unlike the DP, where subject fragmentation is more pronounced (Wright et al., 2016).

In conclusion, it is important to note that IB teachers actively participated in PLCs in the schools. One plausible explanation for this finding is that implementing IB programmes in general requires more teacher's collaboration in terms of curriculum development, planning, lesson plans, and collaborative assessment, to name a few. This appears to be true for the vast majority of Korean teachers who are experiencing the implementation of the IB for the first time throughout their teaching career.

**Enhanced Student Competencies:** We examined teachers' perceptions of how well they feel IB education enhances various student competencies on a scale from 1 (strongly disagree) to 6 (strongly agree). The results are presented in Table 4-18 and Figure 4-9.

Overall, the average score for all competencies was 5.19 (SD = 0.91), indicating a strong consensus among teachers that the IB education is perceived to significantly contribute to the development of key student skills. The highest-rated competencies were self-expression abilities and inquiry skills, both receiving a mean score of 5.46 (SD = 0.91), suggesting that teachers strongly believe IB education excels in fostering students' ability to articulate their thoughts and engage in inquiry-based learning. Similarly, problem-solving skills (Mean = 5.32, SD = 0.98) and the ability to connect learning to life (Mean = 5.30, SD = 1.01) were also highly rated, reflecting positive perceptions of IB education's role in helping students apply their knowledge to real-world situations.

Critical thinking (Mean = 5.28, SD = 1.00) and self-directed learning (Mean = 5.26, SD = 1.02) were close behind, indicating that teachers perceive these as strong outcomes of the IB curriculum. Active class participation (Mean = 5.25, SD = 1.03) and creativity (Mean = 5.24, SD = 1.00) were also highly valued, highlighting the emphasis on student engagement and innovative thinking within IB programmes.

Competencies such as deep learning through inquiry and discussion (Mean = 5.18, SD = 1.11) and self-reflection skills (Mean = 5.14, SD = 1.11) were also rated positively, though with slightly more variation in responses.

Lastly, English proficiency received the lowest rating (Mean = 4.19, SD = 1.44), suggesting that while IB education is effective in enhancing various competencies, its impact on English language skills may be perceived as less pronounced compared to other areas.

**Table 4-18. Teachers’ Perception of Enhanced Student Competencies**

Statements	Mean	SD
Self-expression abilities	5.46	0.91
Inquiry skills	5.46	0.91
Problem-solving skills	5.32	0.98
Connect learning to life	5.30	1.01
Critical thinking	5.28	1.00
Self-directed learning	5.26	1.02
Active class participation	5.25	1.03
Creativity	5.24	1.00
<b>AVG.</b>	<b>5.19</b>	<b>0.91</b>
Deep learning through inquiry and discussion	5.18	1.11
Self-reflection skills	5.14	1.11
English proficiency	4.19	1.44

**Fig 4-9. Teachers’ Perception of Enhanced Student Competencies**

Note. N=302. scale from 1 (strongly disagree) to 6 (strongly agree)

We also explored how teachers perceive the role of IB education in shaping student competencies, with a focus on possible variations based on IB programme and teachers’ leadership position. When examining differences across IB programme types, one significant difference was found ( $F = 4.44, p < .05$ ). Teachers in the DP reported the highest perceptions of the impact of IB education on student competencies (Mean = 5.45, SD = 0.54), significantly higher than those in the MYP (Mean = 5.04, SD = 0.94). Teachers in the PYP had a mean score of 5.21 (SD = 1.00), placing them between DP and MYP but not showing a significant difference from either in the post-hoc analysis. Regarding teachers’ position, teachers in leadership roles perceived a significantly greater impact of IB education on student competencies (Mean = 5.38, SD = 0.75) compared to regular teachers (Mean = 5.09, SD = 0.97), with this difference being statistically significant ( $t = -2.66, p < .01$ ).

**Table 4-19. Teachers' Perception of Enhanced Student Competencies by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=302)	PYP	5.21	1.00	111	4.44*	DP> MYP
	MYP	5.04	0.94	128		
	DP	5.45	0.54	63		
Leadership position (N=302)	Teachers	5.09	0.97	200	-2.66**	
	Teachers in Leadership Position	5.38	0.75	102		
IB teachers Total		5.19	0.91	302		

\* p<.05, \*\* p<.01, \*\*\* p<.001. scale from 1 (strongly disagree) to 6 (strongly agree)

**Summary and Implications:** Overall, the findings suggest that teachers believe IB programmes strongly support the development of a wide range of student competencies, particularly in areas related to inquiry, self-expression, and problem-solving, though there is room for improvement in English language skills. The relatively low rating of English language skills appears to be related to the discrepancy between the Korean national curriculum, which emphasizes textbook English (e.g., memorizing grammar and vocabulary), and IB Language B, which focuses on the ability to use the language and demonstrate proficiency through listening, speaking, reading, and writing. DP teachers in particular perceived IB education as highly effective in fostering a broad range of student competencies, as did teachers in leadership positions. The reason DP teachers perceived the highest level of improvement in students' competencies may be related to the fact that they observed a direct contrast to the exam-focused study typical of the traditional Korean curriculum. This contrast may have allowed them to witness firsthand the different educational experiences that emphasize critical thinking, inquiry-based learning, and holistic development, which are central to the DP. Indeed, there is a body of research literature that supports the idea that IB education cultivates students' competences (see Lee et al.'s (2022d) review study of this topic for details). This study adds another empirical finding from the context of Korean public schools. Additionally, teachers in leadership positions showed more positive perceptions of enhanced students' competencies than regular teachers did. As mentioned, this enhanced perception among teachers holding leadership positions might be related to their roles and responsibilities as stakeholders in the implementation of IB programmes, compared to regular teachers. This might have led them to perceive the positive changes in students more acutely.

**Job Satisfaction:** We examined teachers' job satisfaction by asking them to rate their agreement with various statements related to their current satisfaction with the teaching profession and their school. Responses were measured on a scale from 1 (strongly disagree) to 4 (strongly agree). The results are presented in Table 4-20 and Figure 4-10.

The overall average satisfaction score, after accounting for reverse-coded items, was 2.86 (SD = 0.61), indicating a moderate level of satisfaction among teachers. The highest levels of satisfaction were reported in areas such as general job satisfaction (Mean = 3.09, SD = 0.73) and satisfaction with their achievements (Mean = 3.05, SD = 0.74). However, despite the relatively high score for the reverse-coded item "Regret becoming a teacher" (Mean = 3.05, SD = 0.89), this reflects a lower level of regret, meaning that many teachers do not regret their decision to become a teacher.

Teachers also reported moderate enjoyment in their work (Mean = 2.99, SD = 0.75) and confidence in the value of their work (Mean = 2.93, SD = 0.93). The perceived advantages of being a teacher were rated similarly (Mean = 2.90, SD = 0.81).

Lower satisfaction was observed in responses related to specific aspects of their professional life. The reverse-coded item "Moving to another school" (Mean = 2.72, SD = 0.94) indicates that some, not many though, teachers were seeking to leave their current school. Similarly, the reverse-coded item "Considering another profession" (Mean = 2.46, SD = 0.99) suggests that some, not many though, teachers may contemplate a career change.

The willingness to recommend their current school (Mean = 2.71, SD = 0.89) and whether they would choose to become a teacher again (Mean = 2.67, SD = 0.98) received slightly lower ratings, indicating some hesitancy in these areas.

**Table 4-20. Teacher Job Satisfaction**

Statement	Mean	SD
General job satisfaction	3.09	0.73
Satisfaction with achievements	3.05	0.74
Regret becoming a teacher*	3.05	0.89
Enjoyment of working	2.99	0.75
Confident about the value	2.93	0.93
Advantages of being a teacher	2.90	0.81
<b>AVG.</b>	2.86	0.61
Moving to another school *	2.72	0.94
Recommending their current school	2.71	0.89
Choosing to become a teacher again	2.67	0.98
Considering another profession *	2.46	0.99

Note. * indicates reverse-coded items. N=282. scale from 1 (strongly disagree) to 4 (strongly agree)		
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Statement	Mean
General job satisfaction	3.09
Satisfaction with achievements	3.05
Regret becoming a teacher*	3.05
Enjoyment of working	2.99
Confident about the value	2.93
Advantages of being a teacher	2.9
AVG.	2.86
Moving to another school *	2.72
Recommending their current school	2.71
Choosing to become a teacher again	2.67
Considering another profession *	2.46

**Fig 4-10. Teacher Job Satisfaction**

We further analyzed teachers' job satisfaction by IB programme and leadership position. Table 4-21 shows the results. In short, there were no significant group differences in job satisfaction by those teacher groups.

**Table 4-21. Teacher Job Satisfaction by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=282)	PYP	2.76	0.69	100	2.30	
	MYP	2.89	0.57	121		
	DP	2.96	0.51	61		
Leadership position (N=282)	Teachers	2.84	0.63	186	-0.77	
	Teachers holding leadership positions	2.90	0.56	96		
IB teachers Total		2.86	0.61	282		

\* p<.05, \*\* p<.01, \*\*\* p<.001. scale from 1 (strongly disagree) to 4 (strongly agree)

**Summary and Implications:** Overall, there was a moderately positive sense of satisfaction among teachers, particularly in terms of their achievements and general job satisfaction. At the same time, the relatively lower level of agreement with statements such as “considering another profession” and “choosing to become a teacher again.” It should be noted that changing from the teaching profession to another career is very uncommon in South Korea; teaching in public schools has traditionally been recognized as a highly desirable job in society. Although there have been numerous cases of violations against teacher authority and seriously disrespectful behavior from some parents and students in public schools in recent years, the teaching profession remains highly respected in South Korea. In terms of group comparisons, there were no significant differences in teachers’ job satisfaction by IB programme and teachers’ leadership positions.

**School Climate and Culture:** Alongside individual teachers’ job satisfaction, we also investigated teachers’ collective sense of their work environments – i.e., school climate and culture.<sup>19</sup> Teachers’ perceptions of their school’s climate and culture, focused on various aspects such as decision-making opportunities, collaboration, and shared responsibilities. Respondents rated their level of agreement with these statements on a scale from 1 (strongly disagree) to 4 (strongly agree). The results are presented in Table 4-22 and Figure 4-11.

Overall, the average score for all aspects of school climate and culture was 3.30 (SD = 0.68), indicating a generally positive perception of the school environment, though with some areas for improvement. The highest-rated aspect was the collaborative culture fostered by mutual support among staff, with a mean score of 3.44 (SD = 0.66), suggesting that teachers feel supported by their colleagues and perceive a strong sense of teamwork. Encouragement for staff to lead new initiatives also received a relatively high rating (Mean = 3.36, SD = 0.68), indicating that teachers feel empowered to take on leadership roles and innovate within the school.

Consistent enforcement of student behavior rules (Mean = 3.33, SD = 0.68) and sharing a common set of beliefs about teaching and learning (Mean = 3.32, SD = 0.73) were also rated positively,

<sup>19</sup> The survey questions were adopted from TALIS 2018. In this report, we sidestep the longstanding debate over the conceptual distinction between climate and culture, which is not the focus in this study. For the conceptual issues, refer to Hoy (2010), Schein (1992), and Gruenert & Whitaker (2015).

reflecting a sense of alignment and consistency in the school's approach to education and discipline.

On the lower end of the scale, aspects such as student participation in school decisions (Mean = 3.29, SD = 0.57) and parent participation in school decisions (Mean = 3.26, SD = 0.66) were rated slightly lower, suggesting that there may be room for greater involvement of students and parents in the decision-making process.

Sharing responsibility for school issues (Mean = 3.21, SD = 0.74) and staff participation in decision-making (Mean = 3.09, SD = 0.86) received the lowest ratings, indicating that while collaboration is generally strong, there may be a need for more inclusive and participatory decision-making processes within schools.

**Table 4-22. Teachers' Perceived School Climate and Culture**

Statements	Mean	SD
Collaborative culture by mutual support	3.44	0.66
Encouraging staff to lead new initiatives	3.36	0.68
Consistent enforcement of student behavior rules	3.33	0.68
Sharing a common set of beliefs about teaching and learning.	3.32	0.73
<b>AVG.</b>	<b>3.30</b>	<b>0.68</b>
Student participation in school decisions	3.29	0.57
Parents Participation in school decisions	3.26	0.66
Sharing responsibility of school issues	3.21	0.74
Staff Participation in decision-making	3.09	0.86

**Fig. 4-11. Teachers' Perceived School Climate and Culture**

Note. N=281. scale from 1 (strongly disagree) to 4 (strongly agree)

We also analyzed how teachers perceive the school climate and culture, with comparisons made based on IB programme and teachers' leadership position. The results are presented in Table 4-23.

When examining differences across IB programs, there was a noticeable, though not statistically significant, trend. PYP teachers reported the highest average perception of school climate and culture (Mean = 3.38, SD = 0.52), followed by MYP teachers (Mean = 3.27, SD = 0.55), and DP teachers reported the lowest perception (Mean = 3.18, SD = 0.67). Although the differences



among the programmes were not statistically significant ( $F = 2.57$ ), they suggest that the type of IB programme may influence teachers' views on school climate and culture.

Regarding leadership position, teachers with leadership roles had a slightly higher perception of school climate and culture (Mean = 3.37, SD = 0.52) compared to regular teachers (Mean = 3.25, SD = 0.59). However, this difference was not statistically significant ( $t = -1.77$ ), suggesting that while leadership roles may positively influence perceptions, the effect is not substantial.

**Table 4-23. Teachers' Perceived School Climate and Culture by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=281)	PYP	3.38	0.52	99	2.57	
	MYP	3.27	0.55	121		
	DP	3.18	0.67	61		
Leadership position (N=281)	Teachers	3.25	0.59	185	-1.77	
	Teachers in Leadership Position	3.37	0.52	96		
IB teachers Total		3.29	0.57	281		

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . scale from 1 (strongly disagree) to 4 (strongly agree)

**Summary and Implications:** Overall, the findings suggest that teachers perceived a positive school climate and culture, particularly in terms of mutual support and encouragement for leadership. However, there is potential for improvement in areas related to decision-making and the involvement of all stakeholders in school governance. This pattern was consistent across teachers regardless of IB programme and teachers' leadership positions.

**Students' Balanced Growth and Development:** We asked teachers to indicate their level of agreement with statements regarding the importance and practice of fostering students' balanced growth and development as an important educational goal at their school. Responses were ranged from 1 (strongly disagree) to 5 (strongly agree). The results are presented in Table 4-24.

The analysis shows a very high level of agreement; teachers believe that their schools place emphasis on fostering students' balanced growth and development. The average score for the practice of promoting students' balanced growth and development was 4.53 (SD = 0.60), indicating that this is a well-implemented practice in schools.

Similarly, the overall average score for recognizing students' balanced growth and development as an important educational goal was 4.52 (SD = 0.59). The close alignment between the importance placed on this goal (Mean = 4.51, SD = 0.62) and the actual practice in place suggests that schools not only value balanced student development but are also effectively putting it into practice.

**Table 4-24. Teachers' Perception of Students' Balanced Growth and Development**

Statements	Mean	SD
Practices for students' balanced growth and development	4.53	0.60
<b>AVG.</b>	<b>4.52</b>	<b>0.59</b>
Students' balanced growth and development as an important goal	4.51	0.62

Note. N=280. Scale from 1 (strongly disagree) to 5 (strongly agree). The original statements are: "Our school members recognize the balanced growth and development of students as an important educational goal" and "Our school members practice education aimed at the balanced growth and development of students."

We also analyzed perceptions of the importance and practice of fostering students' balanced growth and development, with comparisons based on IB programme and leadership position.. The results are reported in Table 4-25.

Overall, there were no significant differences in the comparisons noted above. Specifically, when examining differences across IB programmes, PYP teachers reported the highest perception of the importance and practice of fostering balanced growth (Mean = 4.59, SD = 0.58), followed by MYP teachers (Mean = 4.52, SD = 0.55), and DP teachers reported the lowest perception (Mean = 4.39, SD = 0.66). Although the differences were noticeable, they were not statistically significant (F = 2.35). Regarding leadership position, teachers in leadership roles had a slightly higher perception of the importance and practice of fostering balanced growth (Mean = 4.60, SD = 0.52) compared with regular teachers (Mean = 4.47, SD = 0.62). However, this difference was also not statistically significant (t = -1.78), indicating that while leadership roles may have a positive influence, the impact is not substantial.

**Table 4-25. Teachers' Perception of Students' Balanced Growth and Development by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=280)	PYP	4.59	0.58	98	2.35	
	MYP	4.52	0.55	121		
	DP	4.39	0.66	61		
Leadership position (N=280)	Teachers	4.47	0.62	184	-1.78	
	Teachers in leadership position	4.60	0.52	96		
IB teachers Total		4.52	0.59	280		

\* p<.05, \*\* p<.01, \*\*\* p<.001. scale from 1 (strongly disagree) to 5 (strongly agree)

**Summary and Implications:** Overall, there was a strong consensus among teachers that students' balanced growth and development is highly recognized as an important educational goal and actively pursued in practice at their schools. The overall average score was 4.49 (SD = 0.65), suggesting that students' balanced growth and development is an educational priority in their schools.

**School Support for Student Self-Directed Learning:** We explored teachers' perceptions of how well their schools support students' self-directed learning. Teachers rated their agreement with various statements related to these aspects on a scale from 1 (strongly disagree) to 5 (strongly agree). The results are reported in Table 4-26.

Overall, the average score across all statements was 4.30 (SD = 0.67), indicating a generally positive perception among teachers regarding their schools' support for self-directed learning. The highest-rated aspect was the provision of individualized feedback based on assessment results, with a mean score of 4.40 (SD = 0.67). This suggests that teachers feel their schools are effective in providing personalized feedback that helps guide students' learning processes.

The use of diverse assessment tools to support students' learning also received a high rating (Mean = 4.36, SD = 0.72), reflecting strong agreement that a variety of assessment methods are employed to aid in the learning process. Opportunities for students to make independent judgments and choices were rated slightly lower (Mean = 4.25, SD = 0.80), though still positively, indicating that teachers believe students have a fair degree of autonomy in their learning. The ability for students to direct their own learning plans and progress received the lowest rating among the aspects considered (Mean = 4.19, SD = 0.80). However, the average score was still reasonably high.

**Table 4-26. Teachers' Perception of School Support for Student Self-Directed Learning**

Statements	Mean	SD
Individualized feedback based on assessment results	4.40	0.67
Using diverse assessment tools for students' learning process	4.36	0.72
<b>AVG.</b>	<b>4.30</b>	<b>0.67</b>
Opportunities for students to make independent judgements and choices	4.25	0.80
The ability for students to direct own learning plan and progress	4.19	0.80

Notes. N=278. scale from 1 (strongly disagree) to 5 (strongly agree)

We further analyzed teachers' perceptions of how well their school supports student autonomy and self-directed learning, focusing on differences based on IB programme and leadership position. The results are reported in Table 4-27.

Overall, there were no significant differences evidenced through the comparisons noted above. Specifically, when examining differences across IB programs, PYP teachers reported the highest perception of support for student autonomy and self-directed learning (Mean = 4.41, SD = 0.67), followed by MYP teachers (Mean = 4.28, SD = 0.68), with DP teachers reporting the lowest perception (Mean = 4.17, SD = 0.61). Although the differences were noticeable, they were not statistically significant ( $F = 2.59$ ). Regarding leadership position, teachers with leadership roles had a slightly higher perception of support for student autonomy and self-directed learning (Mean = 4.36, SD = 0.63) compared to regular teachers (Mean = 4.27, SD = 0.69). However, this difference was also not statistically significant ( $t = -1.04$ ), suggesting that leadership roles do not substantially influence perceptions in this area.

**Table 4-27. Teachers’ Percpetion of School Support for Student Self-Directed Learning by Teacher Characteristics**

Category	Subcategory	Mean	SD	N	t/F	Post.
Programmes (N=278)	PYP	4.41	0.67	97	2.59	
	MYP	4.28	0.68	120		
	DP	4.17	0.61	61		
Leadership position (N=278)	Teachers	4.27	0.69	183	-1.04	
	Teachers in leadership position	4.36	0.63	95		
IB teachers Total		4.30	0.67	278		

\* p<.05, \*\* p<.01, \*\*\* p<.001. a scale from 1 (strongly disagree) to 5 (strongly agree)

**Summary and Implications:** Overall, teachers perceived their schools as supportive environments for self-directed learning, particularly in providing individualized feedback and using diverse assessment tools, though further enhancements could be made in fostering student autonomy in learning. In other words, teachers believed that their schools are effectively supporting student self-directed learning, particularly through individualized feedback and diverse assessment tools.

#### 4.4. Profiled Features of IB Programme Implementation from the Teacher Survey

Based on the series of analyses presented thus far, we provide profiles of the characteristics of teachers who teach IB programmes, as well as related school characteristics, such as school climate and culture.<sup>20</sup> In doing so, we provide teachers’ profiles in terms of programme type (PYP, MYP, DP) and whether they hold leadership positions.

**Profiling Teacher and School Characteristics by Programme:** Overall, PYP teachers demonstrated the highest level of positive perceptions in relation to their IB programme’s implementation, followed by MYP teachers then DP teachers in that order.

As illustrated in Table 4-28, PYP teachers rated the highest in the following areas: pedagogical autonomy, variety of assessment, school change, and PLC. The differences were statistically significant. DP teachers rated the highest in enhanced students’ competencies, which was statistically significant from other teachers’ responses.

While PYP teachers reported the highest level of agreement with those positive features in relation to the IB programme implementation, they also reported the highest score of work-related stress as presented in Table 4-29. This highlights their sense of ambivalence to some extent. This finding supports the interpretation for why PYP teachers may experience more work-related stress as they lead many positive changes in implementing the PYP.

<sup>20</sup> The characteristics by the 18 schools are visually presented with box plots in Appendix 4-8. Also, reliability of the characteristics of teachers and schools is presented in Appendix 4-9.

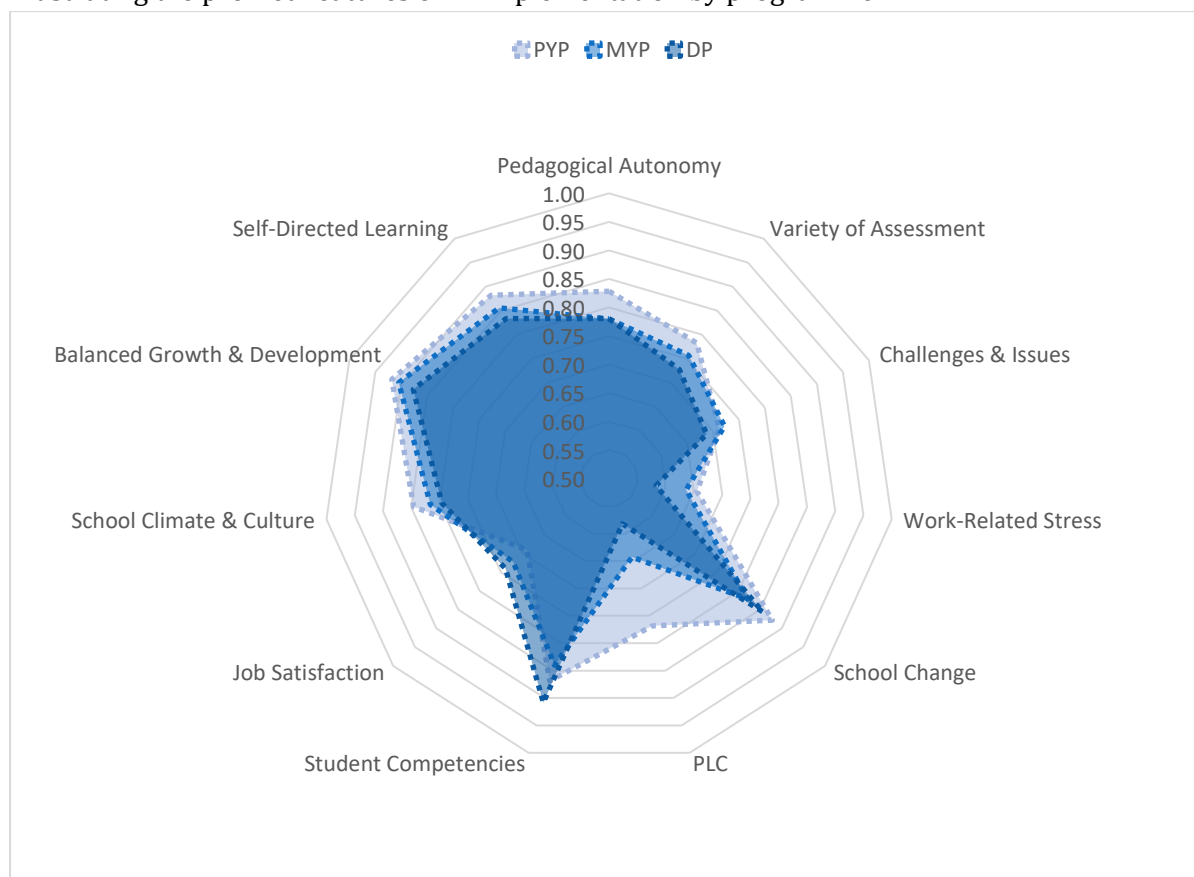
**Table 4-28. Teachers' Perception of Positive Aspects of Programme Implementation**

Teacher and School Characteristics	PYP	MYP	DP	Statistical Difference
Pedagogical Autonomy	<b>3.31</b>	3.12	3.12	<b>Yes</b>
Variety of Assessment	<b>3.13</b>	3.03	2.91	<b>Yes</b>
School Change	<b>5.27</b>	4.93	5.14	<b>Yes</b>
PLC	<b>3.84</b>	3.21	2.91	<b>Yes</b>
Student Competencies	5.21	5.04	<b>5.45</b>	<b>Yes</b>
Job Satisfaction	2.76	2.89	2.96	No
School Climate & Culture	3.38	3.27	3.18	No
Balanced Growth & Development	4.59	4.52	4.39	No
Self-Directed Learning	4.41	4.28	4.17	No

**Table 4-29. Teachers' Perception of Negative Aspects of Programme Implementation**

Teacher and School Characteristics	PYP	MYP	DP	Statistical Difference
Challenges and Issues	4.27	4.33	4.13	No
Work-Related Stress	<b>2.62</b>	2.54	2.33	<b>Yes</b>

The graph in Figure 4-12 is a visualization of the data presented in Tables 4-30 and 4-31, illustrating the profiled features of IB implementation by programme.



**Figure 4-12. Profiled Aspects of IB implementation by Programme**

Note. Since each area was measured on a different scale (4 to 6-point Likert scale), the scores were standardized by dividing each mean by the highest possible score for that area. This adjustment allows for cross-category comparisons among the different aspects of IB programme implementation.<sup>21</sup>

**Profiling Teacher and School Characteristics by Leadership Position:** Overall, teachers holding leadership positions, including IB coordinators, department heads, and grade-year heads, demonstrated higher level of perceptions in “all” the positive features in relation to their IB programme’s implementation than regular teachers, as illustrated in Table 4-30. The statistically significant differences were identified only in the areas of school change and student competences between the two groups.

In relation to the negative features of teacher and school characteristics, there was a mixed picture, as presented in Table 4-31. Regular teachers indicated a higher level of perception than teachers holding leadership positions in challenges and issues in relation to implementing IB programmes. In contrast, a different pattern was observed regarding work-related stress. The differences were not statistically significant.

**Table 4-30. Teachers’ Perception of Positive Aspects of Programme Implementation by Teacher Position**

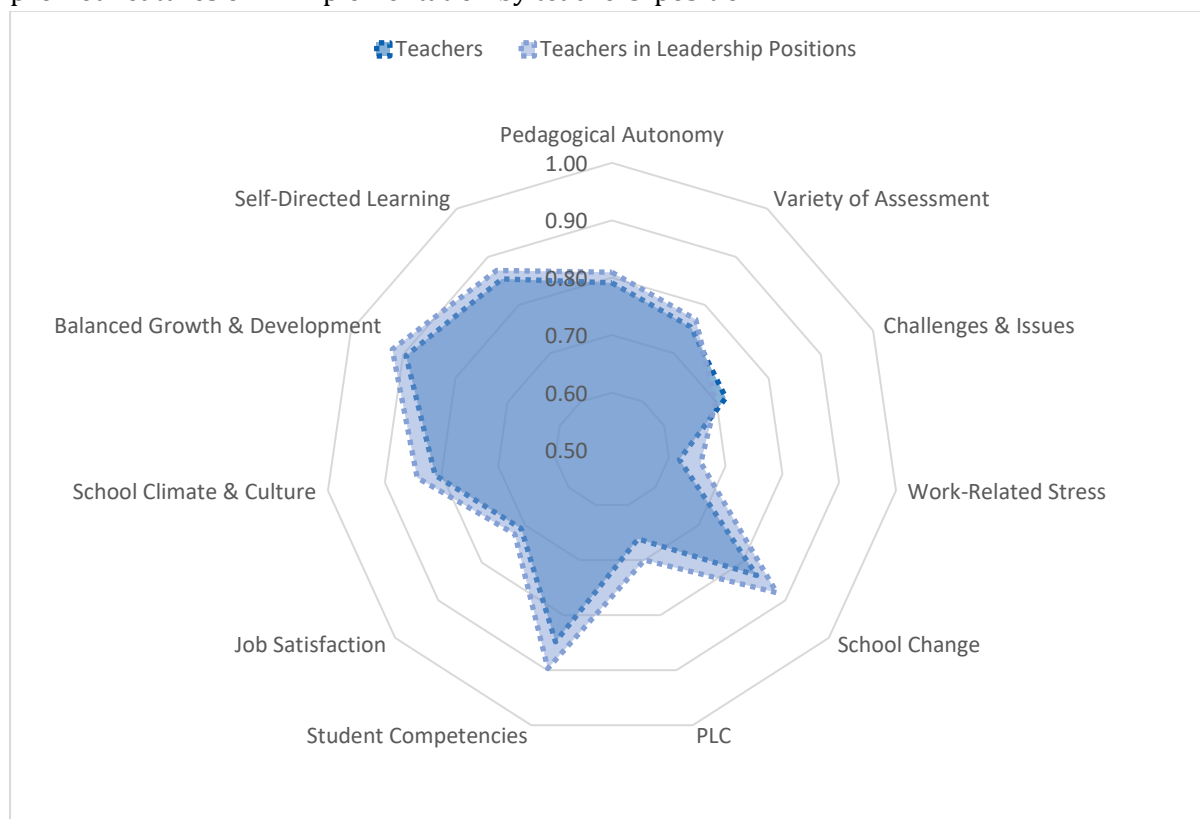
Teacher and School Characteristics	Regular Teachers	Teachers in Leadership Position	Statistical Difference
Pedagogical Autonomy	3.16	3.24	No
Variety of Assessment	3.02	3.08	No
School Change	5.00	<b>5.28</b>	<b>Yes</b>
PLC	3.31	3.50	No
Student Competencies	5.09	<b>5.38</b>	<b>Yes</b>
Job Satisfaction	2.84	2.90	No
School Climate & Culture	3.25	3.37	No
Balanced Growth & Development	4.47	4.60	No
Self-Directed Learning	4.27	4.36	No

**Table 4-31. Teachers’ Perception of Negative Aspects of Programme Implementation by Teacher Position**

Teacher and School Characteristics	Regular Teachers	Teachers in Leadership Position	Statistical Difference
Challenges and Issues	4.31	4.19	No
Work-Related Stress	2.47	2.63	No

<sup>21</sup> For example, if pedagogical autonomy is measured on a 4-point Likert scale and school change is measured on a 6-point Likert scale, dividing each item by the highest value of the scale (4 and 6, respectively) results in values ranging between 0 and 1, regardless of the original scale. This allows for comparison of relative magnitudes across different domains. It applies the principles of a min-max scaler in a similar way.

Figure 4-13 is a visualization of the data presented in tables 4-30 and 4-31, illustrating the profiled features of IB implementation by teachers' position.



**Figure 4-13. Profiled Aspects of IB implementation by Teachers' Position**

Note. Since each area was measured on a different scale (4 to 6-point Likert scale), the scores were standardized by dividing each mean by the highest possible score for that area. This adjustment allows for cross-category comparisons among the different aspects of the IB programme implementation.

**Profiling Teacher and School Characteristics by IB Teachers vs. Non-IB teachers in IB Schools:** We compared the responses of IB teachers with their non-IB teaching colleagues in the same schools. This comparison was made based on the idea that non-IB teachers were able to observe the process of the implementation of the IB programme taking place in their school even if they were not directly involved in the implementation of it. Through this, it is reasonable to assume that non-IB teachers may have formed their own perception of the IB programme through their observations of the teaching and learning taking place in IB classes. Notably, inferential statistical analysis such as t-test was not employed for this comparison, given the small sample size and sampling of teachers who were not involved in IB programmes in the IB schools.

As presented in Table 4-32 below, overall, IB teachers provided higher ratings than non-IB teachers across many of the positive features of teacher and school characteristics connected to implementing the IB programmes. Regarding the negative features, the results were more varied, as evidenced in Table 4-33. Non-IB teachers reported a higher level of perceived challenges and issues in relation to the implementation of the IB programmes compared with IB teachers. Regarding work-related stress, IB teachers rated higher than non-IB teachers.

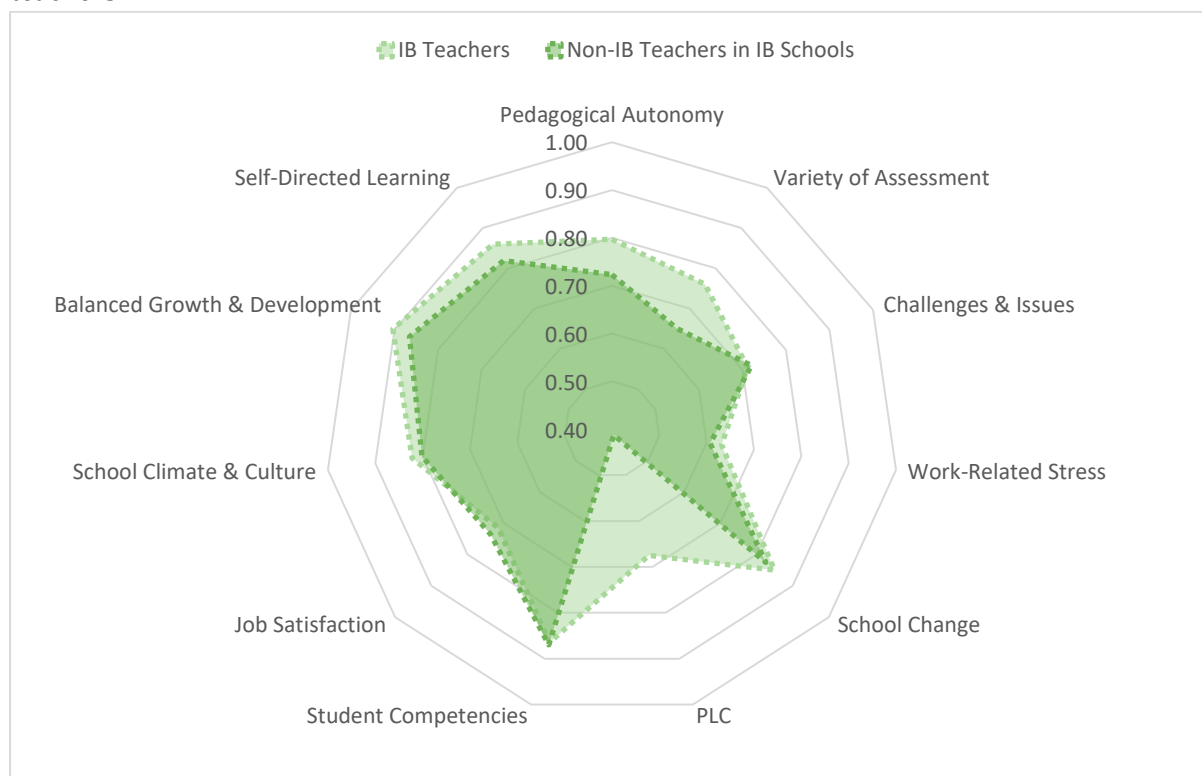
**Table 4-32. Teachers’ Perception of Positive Aspects of Programmes Implementation by IB vs. non-IB Teachers**

Teacher and School Characteristics	Teaching IB	Not IB Teaching
Pedagogical Autonomy	3.19	2.89
Variety of Assessment	3.04	2.60
School Change	5.10	4.95
PLC	3.37	2.06
Student Competencies	5.19	5.22
Job Satisfaction	2.86	2.94
School Climate & Culture	3.29	3.20
Balanced Growth & Development	4.52	4.33
Self-Directed Learning	4.30	4.09

**Table 4-33. Teachers’ Perception of Negative Aspects of Programmes Implementation by IB vs. non-IB Teachers**

Teacher and School Characteristics	Teaching IB	Not IB Teaching
Challenges and Issues	4.27	4.32
Work-Related Stress	2.53	2.43

The graph in Figure 4-14 is a visualization of the data presented in tables 4-34 and 4-35, illustrating the profiled features of IB implementation as perceived by IB compared with non-IB teachers.



**Figure 4-14. Profiled Features Aspects of IB Implementation Perceived by IB Compared with Non-IB Teachers in IB Schools**



Note. Since each area was measured on a different scale (4 to 6-point Likert scale), the scores were standardized by dividing each mean by the highest possible score for that area. This adjustment allows for cross-category comparisons among the different aspects of IB programme implementation.

#### 4.5. Results from the Student Survey

**Demographics of Respondents:** A total of 3,225 students responded. Of them, students who did not consent to participate, and students who did not provide any response were excluded from the analysis presented below. As a result, the total number of participants included in the analysis was 2,926. Notably, of these respondents, 51 students enrolled in the DP schools in Daegu Metropolitan City indicated that they were not involved in IB classes, because the DP schools provide the DP for certain classes, not the whole school. Since the 51 students were not involved in the IB programme in the DP schools, they were not included in the main analysis presented in this section<sup>22</sup> Apart from the 51 non-DP students, the basic demographic information of the 2,875 IB students is presented in Table 4-34. Of these participants, 80.8% were from Daegu and 19.2% were from Jeju Province. By IB programme, 66.9% were enrolled in the MYP, 26.2% in the PYP, and 6.9% in the DP. Regarding gender, 54.4% were male and 45.6% were female.

**Table 4-34. Demographics of the Respondents of IB Students**

Category	Subcategory	Freq.	Prop.
School	Daegu 1 (DP)	42	1.5%
	Daegu 2 (MYP_)	315	11.0%
	Daegu 3 (PYP)	152	5.3%
	Daegu 4 (PYP)	42	1.5%
	Daegu 5 (PYP)	86	3.0%
	Daegu 6 (PYP)	77	2.7%
	Daegu 7 (PYP)	125	4.3%
	Daegu 8 (MYP)	677	23.5%
	Daegu 9 (PYP)	95	3.3%
	Daegu 10 (MYP)	333	11.6%
	Daegu 11 (DP)	19	0.7%
	Daegu 12 (MYP)	279	9.7%
	Daegu 13 (PYP)	59	2.1%
	Daegu 14 (DP)	21	0.7%
	Jeju 1 (PYP)	10	0.3%
	Jeju 2 (DP)	116	4.0%
	Jeju 3 (MYP)	320	11.1%
	Jeju 4 (PYP)	107	3.7%

<sup>22</sup> For students who were not involved in IB classes, a separate, modified version of the IB survey contextualized in non-IB students was conducted. This modified survey received responses from 96 non-DP students, with 51 valid responses after excluding incomplete ones. The demographic information of the survey respondents including non-IB students is presented in Appendix 4-10.

Region	Daegu	2,322	80.8%
	Jeju	553	19.2%
Programme	PYP	753	26.2%
	MYP	1,924	66.9%
	DP	198	6.9%
Gender	Female	1,312	45.6%
	Male	1,563	54.4%
Total		2,875	100.0%

To provide more detailed information, Table 4-35 presents the frequency of participants by grade within each IB programme. Note that in the Korean education system, the first year of the DP corresponds to the second year (i.e., 2<sup>nd</sup> grade) of high school.

**Table 4-35. Survey Respondents by Grade**

IB Programme	Grade	Freq.	Prop.
PYP	5th Grade	384	51.0%
	6th Grade	369	49.0%
	Total	753	100.0%
MYP	1st Grade	699	36.3%
	2nd Grade	704	36.6%
	3rd Grade	521	27.1%
	Total	1,924	100.0%
DP	2nd Grade	110	55.6%
	3rd Grade	88	44.4%
	Total	198	100.0%

**Students' Perceived Benefits of IB Programmes:** Students identified the top three perceived benefits of IB education through the survey. Table 4-36 lists these benefits in the order of frequency selected by the students. The benefit most recognized by students was that "IB education enhances thinking skills." This was followed by "IB education improves self-directed learning skills," and "IB education increases participation and engagement in classes." These three characteristics were more frequently chosen by students compared to other traits such as improving relationships with students and teachers, enhancing global citizenship, making school life happier, advantage in university admissions, and trust in IB assessment.

**Table 4-36. Students' Perceived Benefits of IB Education**

Benefits	Freq. (Prop.)
Enhancing thinking skills	1,797 (62.5%)
Improving self-directed learning skills	1,728 (60.1%)
Increasing participation and engagement in classes	1,370 (47.7%)
Improving relationships with students and teachers	735 (25.6%)
Enhancing global citizenship	727 (25.3%)

Making school life happier	717 (24.9%)
Advantage in university admissions with IB	631 (21.9%)
Trust in IB assessment methods	569 (19.8%)

To examine whether the perceived benefits of IB education varied among different groups of students (i.e., by programme and academic performance), we analyzed the survey results by group. The results by IB programme are detailed in Table 4-37. Across the three programmes, the top three benefits identified by students were consistent with the overall results presented above. The fourth-ranked benefit, however, varied: PYP students chose "IB education makes school life happier," MYP students chose "IB education improves relationships with students and teachers," and DP students chose "IB education enhances global citizenship." The benefit "IB assessment methods are reliable" ranked lower across all groups. Compared to MYP students, PYP and DP students did not recognize "IB education is advantageous for university admissions" as a higher-level benefit.

**Table 4-37. Students' Perceived Benefits of IB Education by Programme**

PYP		MYP		DP	
Benefits	Freq.	Benefits	Freq. (Prop.)	Benefits	Freq. (Prop.)
Enhancing thinking skills	489 (64.9%)	Enhancing thinking skills	1,189 (61.8%)	Enhancing thinking skills	119 (60.1%)
Improving self-directed learning skills	463 (61.5%)	Improving self-directed learning skills	1,147 (59.6%)	Improving self-directed learning skills	118 (59.6%)
Increasing participation and engagement in classes	368 (48.9%)	Increasing participation and engagement in classes	906 (47.1%)	Increasing participation and engagement in classes	96 (48.5%)
Making school life happier	261 (34.7%)	Improving relationships with students and teachers	510 (26.5%)	Enhancing global citizenship	57 (28.8%)
Enhancing global citizenship	174 (23.1%)	Enhancing global citizenship	496 (25.8%)	Improving relationships with students and teachers	53 (26.8%)
Improving relationships with students and teachers	172 (22.8%)	Advantage in university admissions with IB	475 (24.7%)	Making school life happier	43 (21.7%)
Trust in IB assessment methods	150 (19.9%)	Making school life happier	413 (21.5%)	Trust in IB assessment methods	20 (10.1%)

Advantage in university admissions with IB	137 (18.2%)	Trust in IB assessment methods	399 (20.7%)	Advantage in university admissions with IB	19 (9.6%)
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The Chi-Square test conducted to examine the relationship between students' affiliation with specific IB programmes, and the perceived benefits, presented a statistically significant result ( $\chi^2 = 105.762$ ,  $p < 0.001$ ,  $df = 16$ ). There was a notable relationship between the specific IB programmes that students were enrolled in and how frequently they perceived certain benefits. In other words, different benefits were emphasized or prioritized depending on the IB programme. For example, "making school life happier" was a more emphasized benefit for PYP students than for MYP and DP students. However, despite these differences, the top three benefits were commonly perceived by students across all IB programmes, regardless of which specific programme they were affiliated with.

In addition, we examined the ranking of perceived benefits according to students' academic performance. Students were divided into four groups based on their self-assessed academic standing: top 25%, upper-middle 25%, lower-middle 25%, and bottom 25%.<sup>23</sup> As presented in Table 4-38, the top three benefits remained consistent with the overall results. However, differences emerged from the fourth rank onward. Notably, students in the top 25% bracket ranked "IB education enhances global citizenship" fourth, a benefit that was ranked lower by other groups. In contrast, among bottom-performing students, while the number of selections for other benefits did not show a significant disparity, "IB assessment methods are reliable" ranked higher compared to other groups. The Chi-Square test reaffirmed the differential perceptions by the level of student academic performance ( $\chi^2 = 49.585$ ,  $p = 0.002$ ,  $df = 24$ ).

**Table 4-38. Students' Perceived Benefits of IB Education by Academic Performance**

Top 25%		Upper-Middle 25%		Lower-Middle 25%		Bottom 25%	
Benefits	Freq. (Prop.)	Benefits	Freq. (Prop.)	Benefits	Freq. (Prop.)	Benefits	Freq. (Prop.)
Enhancing thinking skills	547 (67.0%)	Enhancing thinking skills	637 (65.5%)	Enhancing thinking skills	445 (63.9%)	Enhancing thinking skills	161 (61.0%)
Improving self-directed learning skills	526 (64.4%)	Improving self-directed learning skills	629 (64.7%)	Improving self-directed learning skills	416 (59.8%)	Improving self-directed learning skills	150 (56.8%)
Increasing participation and engagement in classes	427 (52.3%)	Increasing participation and engagement in classes	469 (48.3%)	Increasing participation and engagement in classes	330 (47.4%)	Increasing participation and engagement in classes	138 (52.3%)
Enhancing global citizenship	241 (29.5%)	Improving relationships	267 (27.5%)	Improving relationships	190 (27.3%)	Improving relationships	81 (30.7%)

<sup>23</sup> Details about the demographic information of the survey respondents by academic performance level is presented in Appendix 4-11.

		with students and teachers		with students and teachers		with students and teachers	
Making school life happier	206 (25.2%)	Making school life happier	253 (26.0%)	Making school life happier	188 (27.0%)	Making school life happier	68 (25.8%)
Improving relationships with students and teachers	195 (23.9%)	Enhancing global citizenship	246 (25.3%)	Advantage in university admissions with IB	179 (25.7%)	Trust in IB assessment methods	66 (25.0%)
Advantage in university admissions with IB	167 (20.4%)	Advantage in university admissions with IB	220 (22.6%)	Enhancing global citizenship	174 (25.0%)	Enhancing global citizenship	64 (24.2%)
Trust in IB assessment methods	142 (17.4%)	Trust in IB assessment methods	195 (20.1%)	Trust in IB assessment methods	166 (23.9%)	Advantage in university admissions with IB	64 (24.2%)

**Summary and Implications:** The most recognized benefit by students was that "IB education enhances thinking skills." This was followed by "IB education improves self-directed learning skills," and "IB education increases participation and engagement in classes." These three characteristics were more frequently chosen by students compared to other benefits. These patterns were consistently identified across IB students regardless of their programme status or academic performance level. Another consistent pattern was that "Trust in IB assessment methods" was not much appreciated as the main benefit from students' views. This is interesting, given that one of the main policy justifications currently promoting the introduction of IB programmes into public schools in South Korea, is that IB programmes can serve as a policy solution to change the assessment and evaluation of the current K-12 education system (see Lee, Wright, & Kim, 2021). From a student perspective, this finding suggests that the ultimate goal of introducing the IB into public school systems in South Korea should place emphasis more on cultivating student thinking skills, student agency, and student-centered classroom learning.

In addition to the commonly valued benefits, there were differences in how students perceived other benefits. These variations depended on factors such as the students' programme status and academic performance level. Notably PYP students placed greater emphasis on, "making school life happier" compared with MYP and DP students. Another nuanced difference was that students in the top 25% bracket ranked "IB education enhances global citizenship" fourth, a benefit that was ranked lower by other groups. This is an interesting finding given that academically strong students acknowledge the benefit of taking the IB programme beyond just academic reasons.

**Students' Perceived Challenges of IB Education:** Through the survey, students identified the top three perceived challenges of the IB. Table 4-39 lists these challenges in the order of frequency selected by the students. The challenges were, by large, divided into three groups: the top three, the middle two, and the bottom three. The top three stated challenges were: "The scope of subjects covered in IB education is too broad," "It is difficult to pursue IB education if one does

not have a personality suited for it," and "There are too many assignments in IB education."<sup>24</sup> Of these three perceived challenges, regarding "It is difficult to pursue IB education if one does not have a personality suited for it," suggests that students were concerned about whether or not their personality would fit well with the IB style of learning and assessment, which differ from the current approaches to teaching, learning and assessment in non-IB South Korean schools,. The other two disadvantages indicate that students were mainly concerned about the scope and volume of assignments in their IB classrooms. Challenges related to assessments and college entrance, such as "The assessments conducted in IB education are less trustworthy" and "IB education is disadvantageous for university admissions," were ranked lower, similar to the findings from the perceived benefits presented earlier.

**Table 4-39. Students' Perceived Challenges of IB Education**

Challenges	Freq. (Prop.)
Broad subject scope	1,457 (50.7%)
Personality suitability required for the IB	1,440 (50.1%)
Excessive assignments	1,405 (48.9%)
High level of content difficulty	1,254 (43.6%)
High stress from group activities	1,105 (38.4%)
Limited coverage of knowledge	553 (19.2%)
Disadvantageous for university admissions	550 (19.1%)
Less trust in assessments	495 (17.2%)

To examine whether the perceived challenges of IB education vary depending on the programme undertaken, we first analyzed the survey data by programme. The results are evidenced in Table 4-40. The three major challenges highlighted here were similar to the overall pattern noted above. At the same time, there were some variations dependent on the programme undertaken. Specifically, PYP students identified "It is difficult to pursue IB education if one does not have a personality suited for it" as the biggest challenge. This challenge was ranked third and second consecutively by MYP and DP students. Additionally, PYP students ranked "High stress from group activities in IB education" as the second disadvantage, which was ranked in the middle by MYP and DP students. This suggests that PYP students perceive more stress from group activities compared to students in other programmes. Both MYP and DP students identified "There are too many assignments in IB education" as a major challenge. The Chi-Square test confirmed the statistically significant difference in students' perception by IB programmes ( $\chi^2 = 308.781$ ,  $p < 0.001$ ,  $df = 16$ ). This result suggests that perceptions of challenges varied across IB programme, reflecting distinct challenges or areas of concern that are more prevalent in certain programmes compared to others.

<sup>24</sup> Regarding this finding, we wish to clarify that the number of assignments is determined by the school decision, not by the IB, for the PYP and MYP.

**Table 4-40. Students' Perceived Challenges of IB Education by Programme**

PYP		MYP		DP	
Challenges	Freq. (Prop.)	Challenges	Freq. (Prop.)	Challenges	Freq. (Prop.)
Personality suitability required	429 (57.0%)	Broad subject scope	1,032 (53.6%)	Excessive assignments	114 (57.6%)
High stress from group activities	410 (54.4%)	Excessive assignments	1,012 (52.6%)	Personality suitability required	101 (51.0%)
Broad subject scope	347 (46.1%)	Personality suitability required	910 (47.3%)	Broad subject scope	78 (39.4%)
High level of content difficulty	336 (44.6%)	High level of content difficulty	862 (44.8%)	Disadvantageous for university admissions	71 (35.9%)
Excessive assignments	279 (37.1%)	High stress from group activities	635 (33.0%)	High stress from group activities	60 (30.3%)
Limited coverage of knowledge	175 (23.2%)	Less trust in assessments	362 (18.8%)	High level of content difficulty	56 (28.3%)
Disadvantageous for university admissions	118 (15.7%)	Disadvantageous for university admissions	361 (18.8%)	Limited coverage of knowledge	26 (13.1%)
Less trust in assessments	114 (15.1%)	Limited coverage of knowledge	352 (18.3%)	Less trust in assessments	19 (9.6%)

Table 4-41 details the perceptions of challenges associated with an IB education across different academic performance groups. Regardless of their academic performance level, students highlighted “Broad subject scope” and “Excessive assignments” as the major challenges. However, unlike top and upper-middle groups, lower-middle and bottom groups indicated “The difficulty level of the content covered in IB education is high” as a major disadvantage. Top and upper-middle groups, on the other hand, chose “It is difficult to pursue IB education if one does not have a personality suited for it” as a key drawback. The Chi-Square test confirmed the significant differences across the subgroups of students categorized by their academic performance ( $\chi^2 = 249.856$ ,  $p < 0.001$ ,  $df = 24$ ).

**Table 4-41. Students' Perceived Challenges of IB Education by Academic Performance**

Top 25%		Upper-Middle 25%		Lower-Middle 25%		Bottom 25%	
Challenges	Freq. (Prop.)	Challenges	Freq. (Prop.)	Challenges	Freq. (Prop.)	Challenges	Freq. (Prop.)
Personality suitability required	439 (53.7%)	Broad subject scope	541 (55.7%)	High level of content difficulty	394 (56.6%)	Broad subject scope	163 (61.7%)

Broad subject scope	373 (45.7%)	Personality suitability required	518 (53.3%)	Excessive assignments	392 (56.3%)	High level of content difficulty	151 (57.2%)
Excessive assignments	371 (45.4%)	Excessive assignments	500 (51.4%)	Broad subject scope	377 (54.2%)	Excessive assignments	142 (53.8%)
High stress from group activities	366 (44.8%)	High level of content difficulty	416 (42.8%)	Personality suitability required	363 (52.2%)	Personality suitability required	118 (44.7%)
High level of content difficulty	293 (35.9%)	High stress from group activities	409 (42.1%)	High stress from group activities	245 (35.2%)	High stress from group activities	83 (31.4%)
Disadvantages for university admissions	227 (27.8%)	Disadvantages for university admissions	186 (19.1%)	Limited coverage of knowledge	115 (16.5%)	Limited coverage of knowledge	58 (22.0%)
Limited coverage of knowledge	203 (24.8%)	Limited coverage of knowledge	175 (18.0%)	Disadvantages for university admissions	102 (14.7%)	Less trust in assessments	43 (16.3%)
Less trust in assessments	179 (21.9%)	Less trust in assessments	171 (17.6%)	Less trust in assessments	100 (14.4%)	Disadvantages for university admissions	34 (12.9%)

**Summary and Implications:** The three predominant challenges in relation to IB education, perceived by students, were: “Broad subject scope”, “High level of content difficulty”, and “Personality suitability required for IB education”. While the first two challenges are reported in other IB studies conducted in other countries (e.g., Hallinger et al., 2010), it is worth explaining students’ concern for “Personality suitability required” in the context of South Korea. This indicates that students were concerned their personalities might not align well with the IB style of learning and assessment, which they perceive to be different from the methods they were taught and assessed with in South Korean schools, prior to entering the IB programme. Our interview data suggests that students generally understand IB education to be more inquiry-based, student-led, project-based, and involving diverse learning activities and assessments. Many survey respondents appear to be concerned about a(perceived) mismatch between their personal characteristics, which have become accustomed to more traditional ways of learning.

In terms of programme status, PYP students ranked "High stress from group activities in IB education" as the second challenge, which was ranked in the middle by MYP and DP students. This suggests that PYP students perceive more stress from group activities compared with students in other programmes. This may be partly because group activities are more easily incorporate into elementary (PYP) aged classrooms, when compared to the MYP and the DP. In addition, from the perspective of child development, it could be partly because PYP students may be relatively less developed in relational skills compared to MYP and DP students. Both MYP and DP students identified "There are too many assignments in IB education" as a major disadvantage.



This could be related to the fact that middle and high school students are more influenced by the college entrance exam system in South Korea while elementary school students are relatively distant from the exam system, which in turn may enable PYP students to experience more activities rather than assignments.

Unlike top and upper-middle groups, lower-middle and bottom groups indicated "The difficulty level of the content covered in IB education is high" as a major challenge. Top and upper-middle groups, on the other hand, chose "It is difficult to pursue IB education if one does not have a personality suited for it" as a key drawback. Nonetheless, students consistently highlighted "Broad subject scope", and "Excessive assignments" as the major challenges regardless of the level of their academic performance.

**Concerns About IB Inducing Private Supplementary Tutoring:** In the Korean context, a key concern when introducing a new curriculum such as the DP is how it may affect the demand for private supplementary tutoring, known as "hagwon" (Lee, 2023). The introduction of the DP has raised concerns about whether it might stimulate new demands for private supplementary tutoring, while opinions have been divided on this issue. Notably, in our analysis of the teacher survey data, teachers remained generally unconcerned about the issue. Therefore, we aimed to triangulate teachers' perceptions by further investigating students' perceptions of the demand for private supplementary tutoring following the introduction of the IB, and also to investigate the current state of private supplementary tutoring among IB students.<sup>25</sup>

The perception of DP students regarding the IB and private supplementary tutoring are evidenced in Table 4-42. Students responded to two statements on a Likert scale ranging from 1 to 6 (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree) regarding the impact of the IB on increased demand for private supplementary tutoring. On average, DP students somewhat disagreed with the statement that private supplementary tutoring is necessary to keep up with IB education. Similarly, they somewhat disagreed with the statement that IB education increases the demand for private supplementary tutoring. Thus, students enrolled in the DP generally disagreed that IB induces private supplementary tutoring.

**Table 4-42. DP Students' Perceptions of Private Supplementary Tutoring for the DP**

Statements	N	Min	Max	Mean	SD
Private tutoring is necessary to keep up with IB education.	176	1	6	3.01	1.71
The introduction of IB education in Korea has increased the need for private tutoring.	176	1	6	2.77	1.68
Overall Average	176	1	6	2.89	1.60

Note. scale ranging from 1 to 6 (1 = strongly disagree, 6 = strongly agree)

<sup>25</sup> As we will discuss later, Korea is a hyper-competitive society where the goal of education is often perceived primarily as a means for individuals' social advancement (Lee, Byun, & Mo, 2022). Under these broader societal circumstances, many students and parents invest as much as they can into private supplementary tutoring to stay ahead of others, which has long been a major social concern (Bray, 2022).

To provide a comparison, non-IB high school students enrolled in the Korea's national curriculum at the same DP schools (i.e., the aforementioned 51 students excluded in the main analysis) were asked whether they believe school education induces the need for private supplementary tutoring for the Korean national curriculum. The results are listed in Table 4-43. Students in the national curriculum agreed, with an average score of 4.82, that private supplementary tutoring is necessary to keep up with current school education. They also agreed, with an average score of 4.79, that current school education increases the demand for private supplementary tutoring.

**Table 4-43. Non-DP High School Students' Perceptions of Private Supplementary Tutoring for the Korean National Curriculum**

Statements	N	Min	Max	Mean	SD
Private tutoring is necessary to keep up with school education.	38	1	6	4.82	1.39
Current school education has increased the need for private tutoring.	38	1	6	4.79	1.53
Overall Average	38	1	6	4.80	1.34

Note. scale ranging from 1 to 6 (1 = strongly disagree, 6 = strongly agree)

Additionally, we investigated the current situation of private supplementary tutoring among IB students. Among all IB students, 70.1% reported currently receiving private supplementary tutoring. By programme, 77.4% of PYP students reported receiving private supplementary tutoring, which was the highest percentage. This was followed by 70.8% of MYP students. The lowest percentage was among DP students, with only 32.6% reporting they received private supplementary tutoring. In contrast, 78.0% of high school students not enrolled in the DP reported receiving private supplementary tutoring. Table 4-44 summarizes these responses.

**Table 4-44. Students' Current State of Private Supplementary Tutoring**

Only IB			All		
Stats	Freq.	Prop.	Stats	Freq.	Prop.
Yes	1,944	70.1%	Yes	1,976	70.2%
No	829	29.9%	No	838	29.8%
Total	2,773	100.0%	Total	2,814	100.0%
PYP			MYP		
Yes	571	77.4%	Yes	1315	70.8%
No	167	22.6%	No	542	29.2%
Total	738	100.0%	Total	1857	100.0%
DP			Non-DP		
Yes	58	32.6%	Yes	32	78.0%
No	120	67.4%	No	9	22.0%
Total	178	100.0%	Total	41	100.0%

**Summary and Implications:** Overall, IB students disagreed that the introduction of the IB would increase or demand more private supplementary tutoring. This finding resonates with that of the teacher survey data. This belief is also echoed in the fact that only about one third of the DP students participated in private supplementary tutoring whereas many of their peers studying the national curium in the same DP schools reported a much higher level of participation in private supplementary tutoring (78%). Based on this, it can be said that key stakeholders such as IB students and IB teachers, are unlikely to be overly concerned about the possible increase in private supplementary tutoring due to the introduction of the IB. One reason for this perception can be drawn from the finding that DP students in the survey slightly disagreed with the statement that private supplementary tutoring is necessary to keep up with IB education. Notably, our qualitative study found that private supplementary tutoring focused on conventional exam preparation is not effective for IB education.

At the same time, however, it is necessary to present several caveats considering the Korean context. On average, 70% of both IB and non-IB students in the same DP schools reported that they participated in private supplementary tutoring, although DP students indicated a significantly lower percentage. Although most IB students slightly disagreed with the need for private supplementary tutoring for the IB, 70% of them still participated in private supplementary tutoring in one form or another. One of the reasons for this is because Korea is a hyper-competitive society where the goal of education is often perceived primarily for individuals' social mobility rather than some more profound goals such as self-fulfillment (Lee, Byun, & Mo, 2022). Under this broader societal circumstance, many students and parents invest as much as they can into private supplementary tutoring to stay ahead of others (Bray, 2022), particularly in college entrance exams. IB students and parents are no exception.

Notably, the implementation of the IB in South Korea is still at the early stage; IB authorized and candidate schools currently account for less than 1% of all K-12 schools in Korea. Consequently, the shadow education market, tailored to IB programmes in South Korea, is still very small and in its early stage (Lee, 2023). Therefore, at this stage, concerns for a possible increase in private supplementary tutoring, specialized for IB students, seems minimal. However, given the social contexts mentioned above (i.e., Korean families' intense desire for achieving social mobility through education) and the fact that the considerable scale of the existing shadow education market (i.e., 26 trillion KRW  $\approx$  19.5 billion USD as of 2023, which is equivalent to one third of the public expenditure of education), it is important to pre-empt the need to minimize the impact of the shadow education market's encroaching IB education if the implementation of IB programmes continues to increase (Lee, 2023).

Given the shadow education industry's ability to quickly identify new business opportunities, it is possible to anticipate the future growth of the shadow education market targeting IB programmes. This speculation resonates with our survey findings that among IB students who participated in private supplementary tutoring, some indicated their experience of tutoring tailored to their IB programme (see details presented in Appendix 4-14): tutoring for IB subjects (11.9% among MYP students, 20.7% among DP students), IB Extended Essay (6.9% among DP students) and Theory of Knowledge (TOK) (6.9% among DP students). While still small proportions, they evidence the initial emergence of private supplementary tutoring specializing in the IB in Korea (Lee, 2023).

**Continuation in IB Education and University Admission:** Another concern associated with the introduction of the IB is the continued progression through IB programmes and subsequent university admissions after completing the DP. As the implementation of the IB programmes requires the reconstruction of the national curriculum, there have been discussions about actual and potential systemic mismatches between the two (Lee, 2019). The systemic mismatch issues are salient in the DP, given that it does not yet align well with South Korea's university admission system, which is heavily based on the College Scholastic Ability Test (CSAT), the national exam for college entrance. Specifically, as of 2024, only one-third of the total university admissions quota does not require a minimum CSAT score. These admission tracks select students based on comprehensive student records or academic achievement of certain subjects. DP graduates are eligible to utilize only those tracks because they do not mandate students to submit a minimum CSAT score. As such, many DP students are concerned that they cannot help but to give up the possibility of applying for the other two-thirds of the admission quota right from the start in the competitive college admissions process. This study investigated students' perceptions of these concerns.

Table 4-45 details the responses of PYP and MYP students regarding their willingness to choose the IB for their next level of schooling. Responses were measured on a Likert scale from 1 to 6. On average, PYP students scored 4.55, indicating slight agreement, while MYP students scored 3.26, indicating slight disagreement. This relatively lower willingness among middle school students could be attributed to their concerns about the disadvantages in university admissions described above, as they will move onto upper-secondary education.

**Table 4-45. Students' Willingness to Choose IB for Educational Transition**

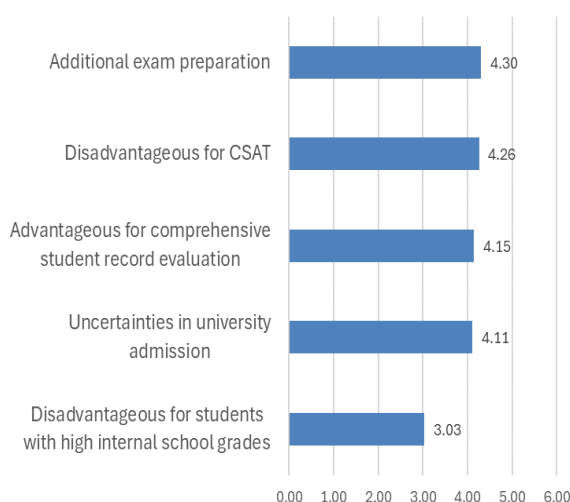
Programme	N	Min	Max	Mean	SD
PYP	738	1	6	4.55	1.54
MYP	1,851	1	6	3.26	1.64
Overall Average	2,589	1	6	3.63	1.71

Note. scale ranging from 1 to 6 (1 = strongly disagree, 6 = strongly agree)

DP students were asked to express their level of agreement with various statements regarding IB education and university admissions (n=176). The results are illustrated in Table 4-46 and Figure 4-15. The statement "IB education is separate from the university entrance exams, so additional preparation for the exams is necessary" received the highest average agreement score of 4.30. Regarding the CSAT, the statement "IB education is disadvantageous because it does not prepare students for the national college entrance exam (CSAT)" had an average score of 4.26, indicating concern. Conversely, the statement "IB education is advantageous in university admissions, such as comprehensive student record evaluation" had an average score of 4.15, suggesting that there are also perceived positive aspects.

**Table 4-46. DP Students' Perceptions of University Admissions**

Stats	Mean	SD
Additional exam preparation	4.30	1.46
Disadvantageous for CSAT	4.26	1.41
Advantageous for comprehensive student record evaluation	4.15	1.34
Uncertainties in university admission	4.11	1.52
Disadvantageous for students with high internal school grades	3.03	1.66



**Fig 4-15. DP Students' Perceptions of University Admissions**

**Summary and Implications:** IB students viewed their experience of the DP as advantageous for college preparation in terms of its academic content, but they also revealed an ambivalence as they felt disadvantaged due to the formal incompatibility of the DP results with the CSAT. These findings suggest that there should be conversations and considerations for policies that would prevent DP students from being disadvantaged in the CSAT while it is also necessary to deliberate on whether those policies would be acceptable to the vast majority of general students who do not choose (or who are not given) the DP.<sup>26</sup>

**Changes in Learner Profile Attributes through IB Education:** We investigated how students perceive their growth and changes through IB education. Specifically, our analysis focused on four areas based on the IB Learner Profile (LP): Knowledgeable, Inquirers, Caring, and Open-minded by using the IB Learner Profile Survey Questionnaire - IBLPQ (Walker, Lee, & Bryant, 2016), developed and validated across several jurisdictions in Asia. Students responded to survey items on a Likert scale from 1 to 6, indicating their level of agreement such as “The IB Programme has helped me to...”

The overall perception of change among IB students in each area is shown in Table 4-47. The average scores were 4.75 for Knowledge, 4.68 for Inquiry, 4.74 for Caring, and 4.70 for Open-mindedness. These results indicate that students, in general, perceive their LP attributes positively, which they believe is related to their participation in IB education.

<sup>26</sup> In August 2024, the 'National Education Council,' a presidential advisory body on education policy, proposed a plan to bifurcate the CSAT into internal and external assessments, similar to the DP assessments, and to introduce essay type of questions into the CSAT. If this policy proposal is approved, it is expected to be implemented in the 2031 CSAT (Source: Donga Newspaper, August 20, 2024, <https://www.donga.com/news/Society/article/all/20240820/126591820/2>).

**Table 4-47. Students' Perception of Learner Profile Attributes**

LP Area	N	Min	Max	Mean	SD
Knowledgeable	2,875	1	6	4.75	1.02
Inquirers	2,875	1	6	4.68	1.08
Caring	2,875	1	6	4.74	1.10
Open-minded	2,875	1	6	4.70	1.09

Note. scale ranging from 1 to 6 (1 = strongly disagree, 6 = strongly agree)

To gauge the level of LP attributes perceived by Korean IB students, we briefly presented the average scores across the same LP areas, as perceived by 758 DP students enrolled in 29 international IB schools in South Asia. As shown in Table 4-48 both Korean IB students from public schools and their counterparts from international schools in Walker et al.'s (2016) study, demonstrate similar levels of LP attributes.

**Table 4-48. Students' Perception of Learner Profile Attributes from Walker et al.'s (2016) Study**

LP Area	Min	Max	Mean	SD
Knowledgeable	1.0	6.0	4.87	0.72
Inquirers	1.0	6.0	4.69	0.82
Caring	1.0	6.0	4.67	1.07
Open-minded	1.0	6.0	4.57	1.0

Note. The source of this table is from Walker et al. (2016). In this study, they developed the IBLPQ from 758 DP students with 52 different nationalities.

Specifically, the detailed perception of changes in the Knowledgeable area, according to specific survey items, is stated in Table 4-49. Students recorded the highest level of agreement, with an average score of 4.85, for the item "Explore ideas and information from a range of different sources." The lowest agreement was for the item "Appreciate the strengths and weaknesses of other peoples' ideas," but even this item received an average score of 4.66. Overall, students generally agreed with all items, indicating positive perceptions of change to to themselves as learners.

**Table 4-49. Students' Perception of the LP Attribute "Knowledgeable"**

The IB Programme has helped me to...	Mean	SD
Explore ideas and information from a range of different sources	4.85	1.14
Explore ideas from a number of different perspectives and/or subject areas	4.84	1.13
Build on others' ideas to form your own opinion	4.75	1.18
Overall Average	4.75	1.02
Change your mind on issues after considering new evidence	4.73	1.17
Apply ideas and concepts to understand how things work in new situations	4.73	1.19
Analyze and present information and ideas found in different subject areas	4.73	1.18

Apply familiar ideas and concepts in new ways in order to defend your own opinion	4.69	1.17
Appreciate the strengths and weaknesses of other peoples' ideas	4.66	1.20

In the Inquirers area (i.e., Table 4-50), the item with the highest level of agreement was "Evaluate and use feedback from a variety of people to improve your learning" with an average score of 4.82. The item with the lowest level of agreement was "Enjoy learning for yourself, not just because it's required," which had an average score of 4.49. However, students generally agreed with this statement as well.

**Table 4-50. Students' Perception of the LP Attribute "Inquirers"**

The IB Programme has helped me to...	Mean	SD
Evaluate and use feedback from a variety of people to improve your learning	4.82	1.18
Know how to research a problem independently	4.78	1.17
Know how to systematically research a problem or a question	4.75	1.18
Use a range of research strategies to investigate a problem	4.74	1.19
Overall Average	4.68	1.08
Become curious about the things you read, see and hear	4.64	1.29
Want to keep on learning new things throughout your life	4.62	1.32
Find out if there are more complex reasons for what appears to be a simple idea of belief	4.58	1.26
Enjoy learning for yourself, not just because it's required	4.49	1.38

In the Caring area (i.e., Table 4-51), the highest level of agreement was with the item "Respect the feelings and needs of others in my local community," which had an average score of 4.85. Conversely, the items "Make a positive difference in other peoples' lives" (average 4.64) and "Commit time and energy to help those in need" (average 4.63) had lower scores. This suggests that students perceive a relatively lower level of change in their actual behaviors. Nevertheless, students generally agreed with all items.

**Table 4-51. Students' Perception of the LP Attribute "Caring"**

The IB Programme has helped me to...	Mean	SD
Respect the feelings and needs of others in your local community	4.85	1.17
Show care and compassion for your peers	4.81	1.18
Empathize with the feelings and needs of others in your local community	4.75	1.22
Empathize with the feelings and needs of people living in different communities and countries	4.74	1.22
Overall Average	4.74	1.10
Make a positive difference in other peoples' lives	4.64	1.26
Commit time and energy to help those in need	4.63	1.24

In the Open-minded area (i.e., Table 4-52), students generally agreed with all items, indicating positive changes. The highest level of agreement was with the item "Learn about the values and beliefs of different cultures," which had an average score of 4.82. The lowest level of agreement was with the item "Encourage others to learn about different countries and cultures," which had an average score of 4.58.

**Table 4-52. Students’ Perception of the LP Attribute “Open-minded”**

The IB Programme has helped me to...	Mean	SD
Learn about the values and beliefs of different cultures	4.82	1.16
Consciously seek more knowledge about different cultures	4.75	1.23
Examine your own values and beliefs through learning how people from other cultures think and act	4.71	1.18
Overall Average	4.70	1.09
Critically explore the ways different individuals and cultures see the world	4.68	1.21
Critically examine your own cultural values and beliefs	4.66	1.23
Encourage others to learn about different countries and cultures	4.58	1.32

**Summary and Implications:** Overall, IB students perceived their LP attributes positively. The level of the LP areas perceived by Korean IB students from public schools was similar to their counterparts from international schools sampled in Walker et al.’s (2016) study. This is an interesting finding, considering that a substantial portion of the DP students in Walker et al.’s study had also previously participated in the PYP and/or the MYP. Given that virtually all the IB students in our Korean samples were experiencing the IB programme for the first time without having prior experiences of the IB, their level of LP attributes is worth noting.

It is also worth noting that our survey asked students to indicate the extent to which they agree with the statements on “changes” they may have experienced in themselves through IB education, for example, “The IB DP programme has helped me to *Explore ideas and information from a range of different sources.*” In this regard, it can be said that IB students’ experiences in South Korea are well aligned with cultivating the LP attributes.

**Comparison of LP Attributes by Student Groups:** We further examined whether there were significant differences in the average scores of the four areas—Knowledgeable, Inquirers, Caring, and Open-minded—across different groups of students. The groups were divided based on the following criteria: programme (PYP, MYP, DP) and academic performance level. The comparison of mean was conducted using *t*-tests for two-group comparisons and ANOVA for comparisons among three or more groups. Table 4-53 presents the results of the group mean comparisons for the four areas.

Significant differences were generally observed relating to the averages across the groups based on the criteria. Certain trends also emerged. Specifically, when comparing by programme, MYP students had the lowest average scores in all four areas, and these differences were significant when compared with the other two groups. Regarding academic performance levels, the averages



for the four areas increased in order of higher academic performance, and post-hoc analysis (i.e., Games-Howell test) confirmed that these differences were significant.

**Table 4-53. Comparison of Group Means in Students' Perception of the LP Attributes of Knowledgeable, Inquirers, Caring, and Open-minded**

<b>Knowledgeable</b>						
<b>Criteria</b>	<b>Group</b>	<b>Mean</b>	<b>SD</b>	<b>N</b>	<b>t or F</b>	<b>Post.</b>
Programme	PYP	5.04	0.82	753	54.05***	PYP, DP > MYP
	MYP	4.61	1.08	1924		
	DP	5.00	0.94	198		
Academic performance level	Top	4.96	1.09	817	42.90***	Top, Upper-Middle > Lower-Middle > Bottom
	Upper-Middle	4.84	0.88	972		
	Lower-Middle	4.53	0.97	696		
	Bottom	4.31	1.21	264		
<b>Inquirers</b>						
Programme	PYP	5.01	0.87	753	73.25***	PYP, DP > MYP
	MYP	4.51	1.12	1924		
	DP	5.03	0.98	198		
Academic performance level	Top	4.92	1.12	817	47.12***	Top > Upper-Middle > Lower-Middle > Bottom
	Upper-Middle	4.77	0.95	972		
	Lower-Middle	4.43	1.02	696		
	Bottom	4.20	1.28	264		
<b>Caring</b>						
Programme	PYP	5.02	0.92	753	43.96***	PYP, DP > MYP
	MYP	4.60	1.13	1924		
	DP	4.93	1.10	198		
Academic performance level	Top	4.89	1.11	817	23.76***	Top, Upper-Middle > Lower-Middle > Bottom
	Upper-Middle	4.81	1.02	972		
	Lower-Middle	4.59	1.02	696		
	Bottom	4.34	1.33	264		
<b>Open-minded</b>						
Programme	PYP	5.02	0.88	753	64.05***	PYP, DP > MYP
	MYP	4.54	1.15	1924		
	DP	5.03	0.99	198		

Academic performance level	Top	4.91	1.13	817	37.00***	Top, Upper-Middle > Lower-Middle > Bottom
	Upper-Middle	4.79	0.99	972		
	Lower-Middle	4.49	1.02	696		
	Bottom	4.25	1.30	264		

\* p<.05, \*\*\* p<.001

**Summary and Implications:** Although overall, IB students claimed a moderately high level of development in these LP attributes resulting from their IB education, it is worth noting that MYP students had the lowest average scores in all the LP areas, compared with PYP and DP students. This warrants further investigations through qualitative research. Regarding academic performance levels, the averages for the four areas increased in order of higher academic performance, and post-hoc analysis confirmed that these differences were significant. Future research can benefit from investigating 1) whether such perceptive differences are actual, and 2) what makes such differences.

**Competencies Enhanced through IB Education:** We also investigated how students perceive the enhancement of various competencies through IB education. Students were asked about their improvements in competencies related to their studies and learning, such as inquiry skills, problem-solving skills, active class participation, and self-directed learning. The overall average score for all competencies was relatively high, as shown in Table 4-54, with an average score of 4.81 on 6-point Likert scale.

**Table 4-54. Overall Average of Students' Perception of Competencies Enhanced Through IB Education**

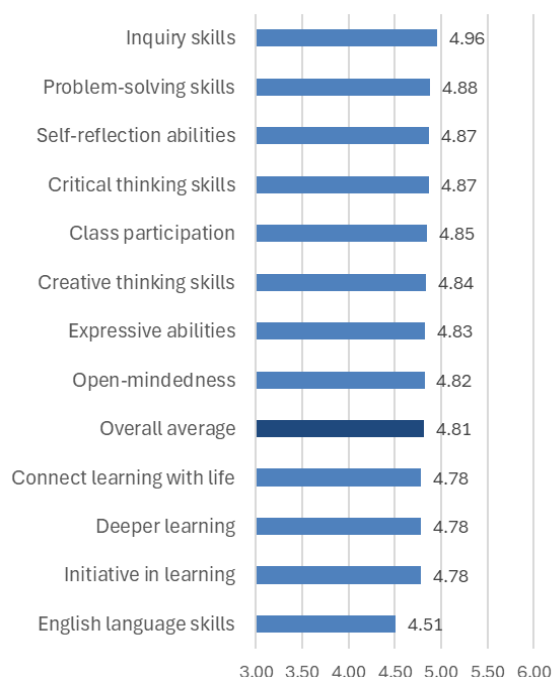
	N	Min	Max	Mean	SD
Overall Average	2,826	1	6	4.81	1.08

Note. scale ranging from 1 to 6 (1 = strongly disagree, 6 = strongly agree)

The detailed survey items and their average scores, sorted in descending order, are detailed in Table 4-55 and Figure 4-16. The statement: "IB education has developed my inquiry skills (data collection and analysis)" received the highest average score of 4.96. This was followed by "IB education has developed my problem-solving skills (understanding and application of knowledge)" at 4.88, and "IB education has developed my critical thinking skills" at 4.87. Other notable scores included "IB education has developed my self-reflection abilities" (4.87), "IB education has increased my class participation" (4.85), "IB education has developed my creative thinking skills" (4.84), "IB education has developed my expressive abilities" (4.83), "IB education has developed my open-mindedness" (4.82), "IB education has developed my initiative in learning" (4.78), "IB education has enabled me to achieve deeper learning through self-directed inquiry and discussions" (4.78), "IB education has developed my ability to connect learning with my life" (4.78), and "IB education has improved my English language skills" (4.51). Students generally rated all items above 4.50.

**Table 4-55. Students' Perception of Competencies Enhanced Through IB Education**

Skills	Mean	SD
Inquiry skills	4.96	1.17
Problem-solving skills	4.88	1.19
Critical thinking skills	4.87	1.18
Self-reflection abilities	4.87	1.20
Class participation	4.85	1.21
Creative thinking skills	4.84	1.22
Expressive abilities	4.83	1.22
Open-mindedness	4.82	1.19
Overall average	4.81	1.08
Initiative in learning	4.78	1.23
Deeper learning	4.78	1.22
Connect learning with life	4.78	1.22
English language skills	4.51	1.39



**Fig 4-16. Students' Perception of Competencies Enhanced Through IB Education**

### Comparison of Enhanced Competencies by Student Groups

We further examined whether there were significant differences in the perception of competencies enhanced through IB education across different groups. The groups were divided by programme and academic performance level. Results are presented in Table 4-56.

In terms of data distribution by programme, the mean for MYP students was lower compared to PYP and DP students, and this difference was statistically significant. This resonates with the lower average of MYP students' LP attributes reported earlier. Regarding academic performance, the average scores increased in the order of higher academic performance levels, and post-hoc analysis confirmed that these differences were significant. This is also similar to the finding of the LP attributes noted above.

**Table 4-56. Comparison of Group Means for Students' Perception of Competencies Enhanced Through IB Education**

Criteria	Group	Mean	SD	N	t or F	Post.
Programme	PYP	5.14	0.86	750	71.58***	PYP, DP > MYP
	MYP	4.65	1.13	1890		
	DP	5.19	0.91	186		
Academic performance level	Top	5.04	1.09	817	43.52***	Top >
	Upper-Middle	4.90	0.96	972		

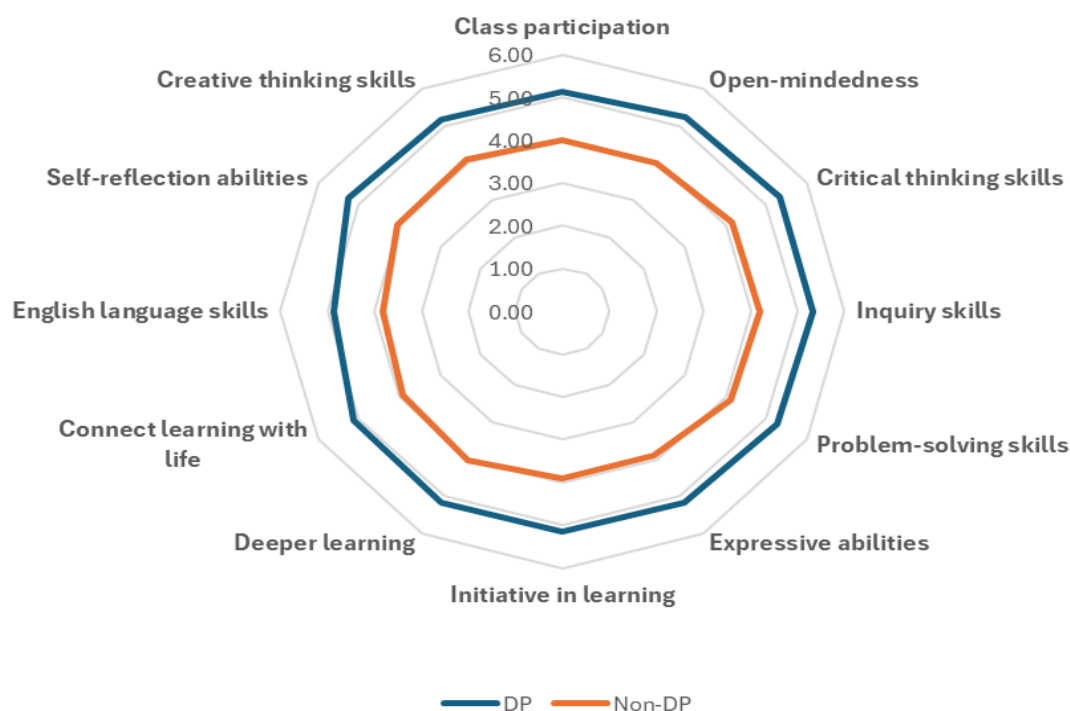
	Lower-Middle	4.59	1.02	696		Upper-Middle >
	Bottom	4.33	1.32	264		Lower-Middle >

\*\*\* p<.001

**Summary and Implications:** IB students reported a moderately high level of competencies, and they believed that such competencies were acquired through IB education; the average score of achievement of these competencies was 4.81 on a 6-point Likert scale. Interestingly, their agreement with competencies enhanced by IB education demonstrated a similar level of agreement to those observed in the LP areas of Knowledgeable, Inquirers, Caring, and Open-minded. This seems to be because the list of competencies above is conceptually related to the four LP areas. Indeed, when compared by the subgroups of IB students (e.g., programme and academic performance), the pattern of the group differences in competencies was consistent with that of the group differences in the four LP attributes.

**Comparison of Means in Enhanced Competencies Between DP and Non-DP High School Students:** Using the available responses from non-DP high school students in our survey, we also compared perceived competencies between students enrolled in the DP program and those in the Korea's general education curriculum at the same schools. Notably, for non-DP students, while using the same IB survey, we also modified some wordings so that the survey questions could be contextualized to their learning environments. For example, we asked non-DP high school students to indicate the extent they agreed that their learning with the national curriculum had helped them to develop the competencies presented in Figure 4-17.

The overall average score, as well as the scores for all individual question items, indicated that DP students had higher levels of perceived competencies, which they believe are related to their IB education, than their non-DP peers. Since the sample size limits the generalizability and statistical rigor of these findings, we did not employ inferential statistical analysis such as t-test. Nonetheless, the descriptive statistics as presented in Figure 4-17 suggest that the impact of the DP programme is perceived more strongly by DP students than by those undertaking the national curriculum in the same schools. More specifically, DP students perceived the greatest enhancement in their 'critical thinking skills,' 'inquiry skills,' 'problem-solving skills,' 'self-reflection skills,' and 'open-mindedness.' On the other hand, non-DP students perceived their greatest enhancement in 'inquiry skills,' 'critical thinking skills,' 'problem-solving skills,' 'creative thinking skills,' and 'self-reflection skills.'



**Figure 4-17. Means in the Perception of Enhanced Competencies Between DP and Non-DP Students**

**Summary and Implications:**

The average score for each individual competency, as well as the overall average across all competencies, indicated that DP students perceive themselves to have higher levels of competency, compared with their non-DP peers. They attribute these higher competencies to their IB education. Although the sample size limits the generalizability of these findings, the results suggest that the impact of the DP on cultivating students’ competencies is perceived more strongly by DP students than non-DP students taking the national curriculum in the same schools. This finding reaffirms our qualitative study’s findings. For example, many teachers interviewed in the qualitative study mentioned that IB students tend to demonstrate greater engagement in self-expression and display a strong aptitude for creative thinking. The teachers perceived that students benefit academically from the DP in terms of acquiring important concepts, improving their inquiry skills, enhancing self-expression and presentation skills, increasing class participation, and developing critical thinking skills (see Chapter 3). Our survey findings also resonate with studies conducted in other countries, including both empirical (e.g., Double et al., 2023; Lee et al., 2017) and review studies (e.g., Lee et al., 2022d). These studies consistently suggest that IB students and/or graduates perceive a higher level of competences than their non-IB counterparts in K-12 schools and in higher education settings.

**IB Classes and School Life:** We also surveyed students receiving an IB education about their perceptions of IB classes and school life, focusing on both positive and negative aspects. The survey responses were measured on a Likert scale from 1 to 6. The average scores for these two

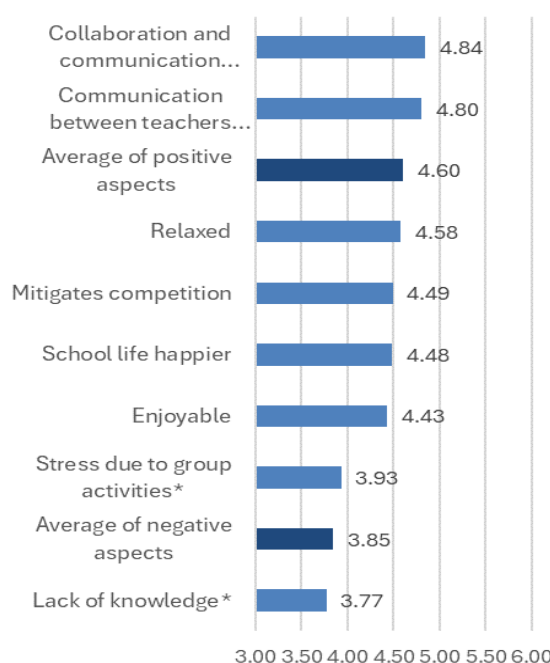
areas are evidenced in Table 4-57. The positive aspects had an average score of 4.60, higher than the negative aspects, which had an average score of 3.85.

The average scores for the detailed items within each aspect are also presented in Figure 4-18. Generally, items related to positive aspects had higher averages than those related to negative aspects. This indicates that students perceive the positive aspects of IB classes and school life more strongly. In order, the items were rated as follows: "IB education increases collaboration and communication among students" (4.84), "IB education increases communication between teachers and students" (4.80), "The atmosphere in IB classes is relaxed" (4.58), "IB education mitigates competition among students through absolute assessment" (4.49), "IB education makes school life happier" (4.48), "IB classes in the IB programme are enjoyable" (4.43), "I feel a lot of stress due to group activities in IB education (i.e., free-riding problem)" (3.93), "I feel there is a lack of knowledge delivery on topics outside the prescribed IB subjects" (3.77).

**Table 4-57. Students' Perception of IB Classes and School Life**

Item	Mean	SD
Collaboration and communication among students	4.84	1.25
Communication between teachers and students	4.80	1.27
Average of positive aspects	4.60	1.22
Relaxed	4.58	1.40
Mitigates competition	4.49	1.40
School life happier	4.48	1.47
Enjoyable	4.43	1.50
Stress due to group activities*	3.93	1.64
Average of negative aspects	3.85	1.46
Lack of knowledge*	3.77	1.59

Note. \* indicates negative aspects.



**Fig. 4-18. Students' Perception of Classes and School Life**

**Comparison of IB Classes and School Life by Groups:** To statistically determine whether there were significant differences in perceptions of IB classes and school life across different groups, *t*-tests and ANOVA were conducted by programme and academic performance level. The results are presented in Table 4-58.

The programme specific analysis revealed that PYP and DP students had statistically significantly more positive perceptions of IB classes and school life compared to MYP students. Conversely, MYP and DP students had statistically significantly more negative perceptions compared to PYP students. In terms of academic performance, students with higher academic performance levels had significantly more positive perceptions of IB classes and school life. This difference was

significant between the top and upper-middle groups compared to the lower-middle and bottom groups. There were no significant differences in perceptions of the negative aspects based on academic performance.

**Table 4-58. Comparison of Group Means for Students’ Perception of IB Classes and School Life**

Positive Aspects						
Criteria	Group	Mean	SD	N	t or F	Post.
Programme	PYP	5.04	0.99	745	87.99***	PYP, DP > MYP
	MYP	4.40	1.27	1874		
	DP	4.97	1.02	181		
Academic performance level	Top	4.80	1.27	817	26.84***	Top, Upper-Middle > Lower-Middle > Bottom
	Upper-Middle	4.69	1.12	972		
	Lower-Middle	4.41	1.19	696		
	Bottom	4.16	1.33	264		
Negative Aspects						
Programme	PYP	3.59	1.54	745	18.10***	MYP, DP > PYP
	MYP	3.92	1.42	1874		
	DP	4.16	1.38	181		
Academic performance level	Top	3.90	1.59	817	0.89	
	Upper-Middle	3.84	1.45	972		
	Lower-Middle	3.78	1.33	696		
	Bottom	3.88	1.43	264		

\*\*\* p<.001

**Summary and Implications:** Findings above suggest that IB students agreed more with the positive features of IB classes and school life than those of negative features. This suggests that the positive aspects of IB classes and school life appear to leave a stronger impression on students than the negative aspects. At the same time, there were variations in students’ perceptions. The analysis by programme demonstrates that PYP students generally viewed their IB classes and school life more positively than DP and MYP students. On the flip side, MYP and DP students tended to have more negative perceptions than PYP students. Academically, students who performed better had a much more positive perception on their IB class and school life, especially when comparing the highest-performing students to those in the lower performance brackets. These variations in students’ perception warrant further investigation.

**Perceptions of IB Assessments:** We investigated the perceptions of students receiving an IB education regarding assessments, examining both positive and negative aspects. The survey responses were measured on a Likert scale from 1 to 6. The average scores for these two areas are listed in Table 4-59. The positive aspects had an average score of 4.52, higher than the negative aspects, which had an average score of 3.92. This suggests that overall, students agreed somewhat more with the positive features of IB assessments than those negative features, shown below.

**Table 4-58. Averages of Students' Perception of Positive and Negative Aspects of IB Assessments**

Aspect	N	Min	Max	Mean	SD
Positive Aspects	2,781	1	6	4.52	1.17
Negative Aspects	2,781	1	6	3.92	1.22

Note. scale ranging from 1 to 6 (1 = strongly disagree, 6 = strongly agree)

The average scores for the detailed items within each area are also shown in Table 4-60. Specifically, IB students reported a relatively high level of agreement with the following statements, most of which describe the positive features of IB assessment: "IB assessments are reliable" (4.62), "I am generally satisfied with the IB assessment methods" (4.60), "IB assessments are objective" (4.51), and "IB assessment results tend to be generous" (4.34). At the same time, however, IB students also showed a moderately high level of agreement with several negative features of IB assessment: The burden is high because I have to take midterms, finals exams alongside IB" (4.16), "The scope of IB assessments is excessively large" (4.13).

**Table 4-59. Students' Perceptions of IB Assessments**

Item	Mean	SD
Reliable	4.62	1.31
Generally satisfied	4.60	1.36
Average of positive aspects	4.52	1.17
Objective	4.51	1.32
Generous	4.34	1.39
Heavy assessment load*	4.16	1.63
Scope of assessment excessively large*	4.13	1.43
Average of negative aspects	3.92	1.22
Level of assessment excessively high*	3.84	1.48
Ambiguous criteria*	3.80	1.51
Difficult to compare my learning abilities with others*	3.69	1.55

Note. \* indicates negative aspects of IB assessments. Regarding "generous", it could be viewed as either positive or negative, depending on contexts. In this survey context, the wording "generous" was used as having positive connotation.

**Comparison of the Perception of IB Assessments by Group:** To determine whether there were significant differences in perceptions of IB assessments across different groups, t-tests and ANOVA were conducted by programme and academic performance level. The results are presented in Table 4-61. The analysis revealed significant differences in both positive and negative aspects across the four groupings.

In terms of programmes, PYP students had significantly higher perceptions of positive aspects and significantly lower perceptions of negative aspects when compared with other groups. This indicates that PYP students viewed IB assessments most positively. On the other hand, MYP students had significantly lower perceptions of positive aspects compared with the other groups.



When considering academic performance, students with higher academic performance levels had notably higher perceptions of the positive aspects. This difference was especially noteworthy between the top and upper-middle groups when compared with the lower-middle and bottom groups. For negative aspects, students with higher academic performance levels had significantly lower perceptions, with top-performing students claiming the least negative impact. This difference was statistically significant.

**Table 4-60. Comparison of Group Means for Students' Perceptions of IB Assessments**

Positive Aspects						
Criteria	Group	Mean	SD	N	t or F	Post.
Programme	PYP	4.98	0.97	740	88.27***	PYP > DP > MYP
	MYP	4.33	1.21	1863		
	DP	4.62	1.05	178		
Academic performance level	Top	4.68	1.22	817	19.44***	Top, Upper-Middle > Lower-Middle, Bottom
	Upper-Middle	4.60	1.08	972		
	Lower-Middle	4.35	1.16	696		
	Bottom	4.17	1.31	264		
Negative Aspects						
Programme	PYP	3.62	1.32	740	34.25***	MYP > PYP
	MYP	4.05	1.17	1863		
	DP	3.86	1.09	178		
Academic performance level	Top	3.76	1.37	817	7.97***	Upper-Middle, Lower-Middle, Bottom > Top
	Upper-Middle	3.95	1.16	972		
	Lower-Middle	4.05	1.10	696		
	Bottom	4.02	1.28	264		

Note. The p-value of 'Negative Aspects of IB Assessment' in group comparisons by programme was further adjusted by a Bonferroni test. \*\*\*  $p < .001$

**Summary and Implications:** Generally, items related to positive aspects had higher averages than those related to negative aspects, suggesting that IB students see more positive aspects in relation to IB assessment. Nonetheless, a concerning finding is that IB students reported a strong sense of burden for taking too many exams (4.16 on a 6-point Likert scale). This seems because, as our qualitative study findings demonstrate, students in the IB programmes are overwhelmed by the volume, scope, and duration of the summative assessments. Especially DP students who have not chosen the full DP (i.e., taking a few DP subjects only), face the dual burden of preparing for the IB and Korean SATs simultaneously. For MYP and PYP students, apart from IB assessments, they have to take mid-term and final-term summative tests, which are typically standardized tests (see Chapter 3), determined by each school. Because there is lack of consideration for IB grades to be integrated into the National Education Information System (NEIS), which is currently the mandated student record system (Kim, 2016, 2018), most PYP and MYP schools administer their own mid-term and final-term summative tests, apart from IB assessments. That is, the negative

aspects of IB assessment identified by the students (i.e., heavy assessment load and excessively large scope of assessment) are, in part, attributed to the issue of incompatibility between the IB assessment system and the domestic system with the NEIS and SATs in South Korea. Policy conversations on this issue seem urgently needed.

In terms of comparing student groups, there were significant variations by programme status and academic performance. The reasons why PYP students viewed IB assessments more positively than MYP and DP students seems to be because they are not pressured as much as MYP or DP students by external exams. While this needs to be further investigated, PYP students' positive views of IB assessments seem at least partially related to their higher satisfaction with IB classes and school life, and their belief that they have developed more competencies through the PYP. Another interesting finding is that students with higher academic performance levels reported significantly higher perceptions of positive aspects. Conversely, for negative aspects, students with higher academic performance levels had significantly lower perceptions than their peers with lower academic performance. Future research can benefit from this finding. For example, it is intriguing to explore whether the style of IB assessment helps to improve academic performance, or whether students with higher academic abilities adapted more easily to the IB assessment style.

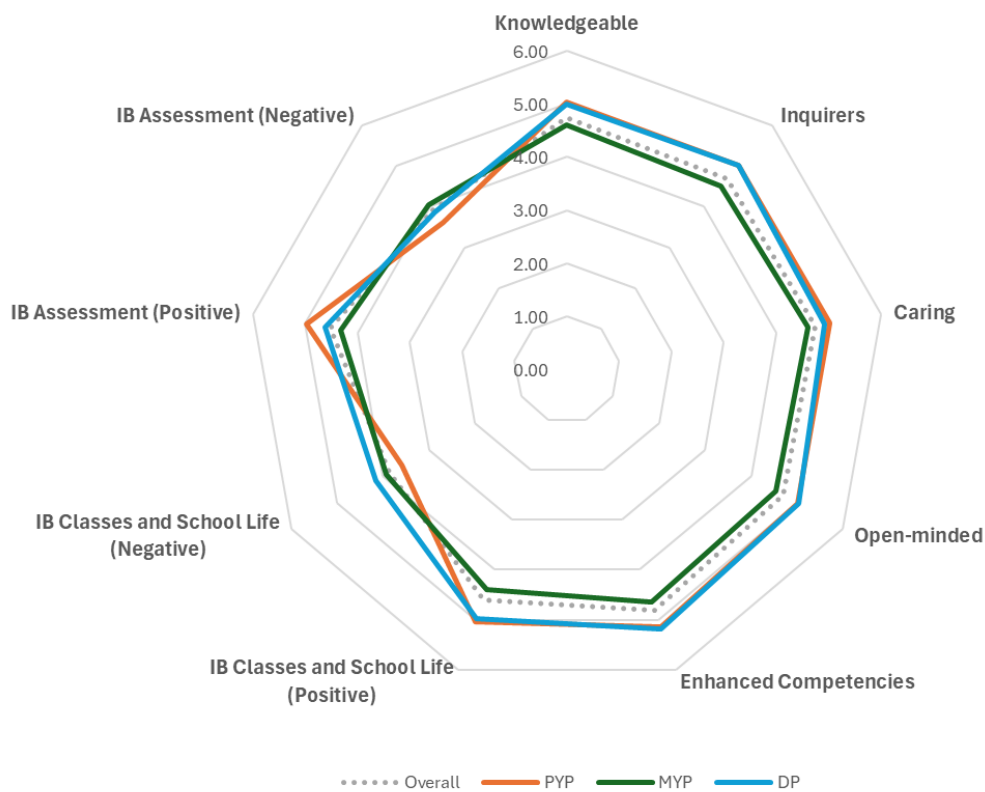
#### **4.6. Synthesis of Key Findings in Relation to Changes in South Korean schools through IB Education**

Of the series of analyses presented thus far, we recapitulate several key findings with a focus on changes in students, shaped by the introduction of IB education. To this end, we present a series of visual images, illustrating differences across different groups of students.

Figure 4-19 illustrates perceived changes in students' learning attributes, skills, and school life since they started in the IB programmes.<sup>27</sup> While overall IB students stated a moderate to high level of perceived changes, a notable difference among groups is that MYP students had lower overall averages when compared with PYP and DP students. Conversely, MYP students had higher negative perceptions of IB assessments and IB classes and school life. This finding suggests a need to explore which aspects of the MYP can be improved in the process of implementing the MYP.

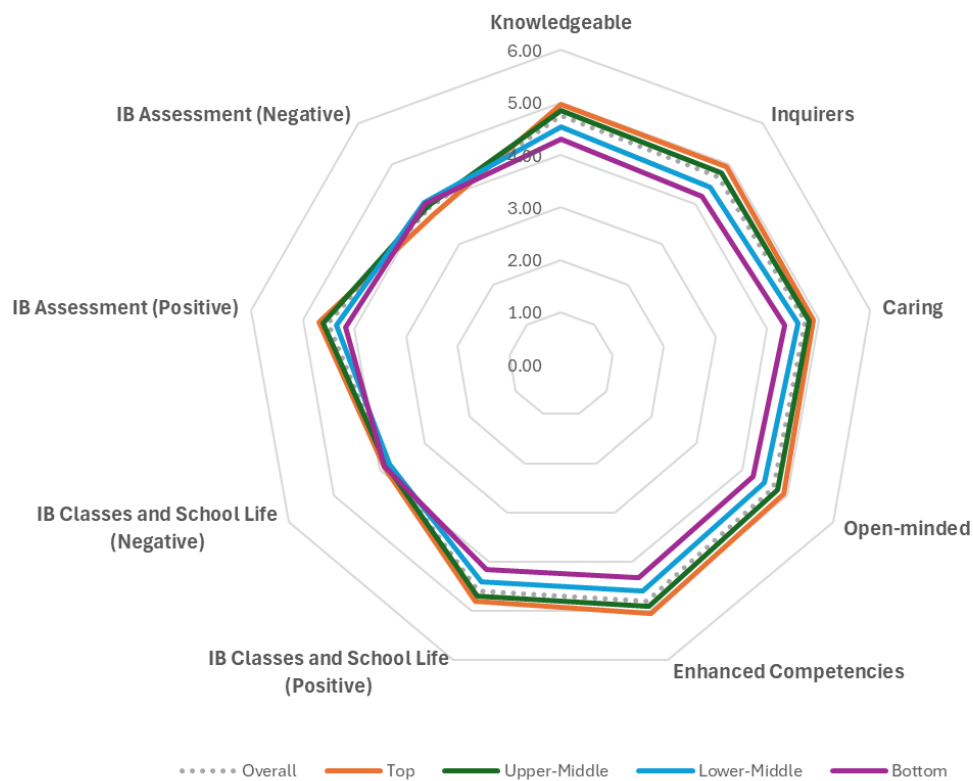
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<sup>27</sup> The reliability (i.e., Cronbach alpha) of the measured areas is presented in Appendix 5-13.



**Figure 4-19. Students' Perception of Change by Programme**

As illustrated in Figure 4-20, when students were divided into four groups based on their academic performance, aside from the negative aspects of IB classes/school life and assessments, high-performing students tended to have the most positive perceptions of changes made by IB education, particularly appreciating improvements in critical thinking and self-directed learning skills. Students with a lower academic performance still showed positive experiences, considering the average scores above 4 on a 6-points Likert scale, but their scores were lower when compared with other groups.



**Figure 4-20. Students' Perception of Change by Academic Performance Level**

Finally, we found that the magnitude of the nine measured areas above (i.e., four LP attributes, enhanced competencies, IB classes and school life, IB assessment) also varied across the 18 schools. Additionally, there were striking variations in the nine measured areas both between and within schools, as illustrated in Appendices 4-14. We look forward to future research that investigates variations in the nine measured areas by both between and within schools. In particular, there is a need for studies that explore which individual and school level factors might explain these variations.

# 5. CONCLUSIONS

This section is divided into four parts. First, we present key findings from our qualitative study, based on individual and focus group interviews with students, teachers, principals, and parents. Second, we provide key findings from our survey data, addressing the research goals outlined in Chapter 1. Next, we discuss the study's limitations and suggest directions for future research. Finally, we offer implications of the findings for policy and practice.

## 5.1. Summary of Key Findings from the Qualitative Study

**Profiling the Landscape of the Nine IB schools' Contexts:** The following key themes from our qualitative study illuminate the emerging landscapes resulting from the initial implementation of the IB programmes in South Korea:

- IB schools in response to need for school improvement
- IB schools changing local demographics
- Parents opting for IB schools due to distrust in public education
- Parents need courage to enrol their children in IB schools
- Limited initial parental involvement in IB schools

School principals and coordinators in our study commonly mentioned **the perceived need for school improvement as the rationale for introducing the IB programme** at their schools. They perceived the IB as a solution for providing students with diverse educational experiences such as global consciousness and student-centered learning. This finding resonates with Choi's (2022) study of PYP schools in Daegu, reporting that PYP principals and teachers see the IB as an "educational innovation" for cultivating learner-centered education and fostering individuals with international competence. The public perception in Jeju Province identifies the introduction of the IB as a key factor for influencing **demographic changes in the local community around the Pyoseon area**. This influx relates to some **parents who opted for IB schools as an alternative to the current national education system**, which is largely swayed by high competition for the national university entrance exam. However, unlike the new influx of families who viewed IB schools as a desirable educational alternative, existing parents remained critical of the IB programmes. Their concerns were primarily rooted in perceived disadvantages for Korean university admissions, as discussed in Chapter 4. Given this context, the decision to choose an IB school **was a difficult decision, for most parents and students, requiring "courage" given the uncertainty surrounding university admissions** in South Korea. Nonetheless, while most parents interviewed indicated that it was a courageous and difficult decision for them to send their children to an IB school, **parental involvement in these schools was not as high as expected**. This suggests that cultivating school-parent relationships is the leadership domain that school principals may need to pay greater attention to.

## **Illuminating the Key Stakeholders' Perceptions of IB Programme Implementation –**

**Benefits, Opportunities, and Changes:** We explored key stakeholders' perceptions of the implementation of the IB programmes in terms of **benefits, opportunities, and changes**. The key themes from our qualitative study are categorized by each major stakeholder group (i.e., students, parents, teachers/principals) and by the organizational levels as follows:

### **Students**

- Enhanced students' self-directed learning
- Private supplementary tutoring not necessary
- Advantages in preparing for higher-level schools
- Deep learning through inquiry and discussion
- Improvement in writing and speaking skills
- Improvement in thinking skills
- Enhanced students' life skills based on the Learner Profile
- Heightened global citizenship awareness
- Benefits of IB education linked to reality
- Good friendship and mutual growth
- Children enjoying a happy school life

Most IB teachers perceived that students **benefitted academically** from IB education in terms of improving their inquiry skills, enhancing self-expression and presentation skills, increasing class participation, and developing critical thinking skills. This is consistent with previous studies on IB education conducted in South Korea (e.g., Choi, 2022). Importantly, teachers and parents emphasized an improvement in their students'/children's **self-directed learning** through a series of experiences in presentations, inquiries, and discussion-based activities. Similar perceptions were also identified from students' voices in the interviews. A recent study (Shin, 2023b) reported similar findings about the MYP based on teacher interviews in South Korea. Our research expands on these findings by also including perspectives from all key stakeholders (teachers, students, and parents) across the PYP and DP. Students also reported that IB education places emphasis on self-directed learning, and that IB assessments are different from the traditional paper-based assessments in regular schools. As such, students felt that **private supplementary tutoring was not necessary for IB education**. This is especially true of MYP students. This finding is similar to Wright et al.'s (2016) finding in IB schools in China. Nonetheless, other studies conducted in South Korea (e.g., Lee, 2023; Ryu & Kim, 2018) provide caveats for the potential increase in private supplementary tutoring in conjunction with the introduction of the "DP programme" to local high schools. In our qualitative study, overall, IB students felt that they had **advantages in preparing for higher-level schools, including university entrance and studies**, given their learning experiences and activities such as performance assessments (e.g., project-based assessments), essays, interviews, and extra-curricular activity records. Teachers also highlighted the practical advantages of the IB in preparing students for Korean university entrance applications, as it necessitates students to be better prepared for interviews.

Parents appreciated that the inquiry and discussion-based learning approach of the IB programmes enabled students to engage in "**deep**" learning. Students perceived improvements in more practical skills through IB education. They felt that their **writing skills in particular improved**, compared to before. This was salient among MYP and DP students. Students also

reported that their **speaking skills** improved. This was commonly confirmed in PYP, MYP, and DP. This finding differs from Choi's (2022) study in Korea, reporting that students undertaking IB programmes had difficulties presenting and expressing themselves through writing or speaking. Students in our study also felt that their ability to **think logically, apply data research skills, and increase their creative capacity** had improved through IB education. In particular, DP students responded that they had developed a critical attitude and data research skills when processing various types of information. Teachers remarked that implementing IB programmes **enhanced students' life skills, aligning with the IB Learner Profile**. They also noted that students developed tolerance for diverse opinions and demonstrated **good citizenship within their school communities**. Furthermore, MYP and DP students in particular reported that they **learned how to better reflect on themselves**. In this regard, many students felt that their **global awareness** was also cultivated through IB education. This was confirmed through the PYP, MYP, and DP data collected. In addition, IB students generally felt they had **improved their ability to apply what they learned to real life contexts**.

Because IB students commonly participate in collaborative activities with their friends, most IB students felt that their **friendships were becoming smoother** and that they were **growing together** through the process of exchanging feedback with their friends. Teachers and principals also observed that students were more inclined to **work together** rather than in competition. In line with this finding, parents commonly reported that their children are **happy to go to school** and reflect on their **school life as joyful**. Similarly, principals highlighted that after the implementation of an IB programme in their school, students appear to be enjoying school life.

### Parents

- Improved parent-child relationships
- Parents' satisfaction with school and local education authority

Parents recognized that teachers' feedback on their children's learning activities enhanced their own communication with their children, which has created **opportunities for them to better understand their children's school life leading to an improvement in their relationship**. Also, parents were **highly satisfied** with the substantial after-school programmes and the educational materials provided by their children's IB school. This satisfaction stemmed not only from the efforts of the schools themselves but also extended to financial and policy support provided by the local education office ensuring the successful integration of the IB programmes into the public education system.

### Teachers/Principals

- Enhanced teachers' assessment skills
- Teachers' sense of professional growth through collaboration
- Enhanced understanding of teaching practices
- Teachers' commitment and caring

Teachers largely agreed that their **assessment skills improved** through the preparation and implementation of the IB. They perceived that they enhanced process-based assessment and criteria-referenced assessment, leading to increased trust from students and parents in the

validity and reliability of student assessments. The most frequently identified perception among teachers was their sense of **professional growth through collaboration**, which is an integral part of implementing IB programmes. Teachers perceived that they were able to enhance their expertise through **formal and informal professional learning communities, in and outside of the schools**. In particular, many teachers noted that they had opportunities to improve **the coherence among curriculum, lessons, assessments, and reporting** in the process of their IB programme implementation. Teachers also noted that they were able to achieve a shared understanding of the IB's mission, vision, and Learner Profile. Given that teachers' **sense of professional growth and a mastery of certain skills** in relation to their teaching and assessment are also found in other IB studies in South Korea (e.g., Byeon et al., 2023), this finding seems to be applicable to many IB schools in South Korea. As we will discuss below, our survey data analysis also supports this finding. Within this context, parents perceived that teachers implementing an IB programme provided significant dedication and care to students in many aspects, including educational activities and school life. They appreciated the **teachers' efforts** to address challenges that may arise in essay writing or collaborative activities; challenges that are less common in the Korean national curriculum due to the general absence of such tasks. Parents also appreciated teachers' willingness to actively engage in proactive one-on-one communication with students aimed at enhancing their understanding and adaptation. Students also appreciated **their teachers' support and care**.

### Organizational Level

- Changes in School Culture

Reflecting on all the improved features of their professional practices noted above, teachers felt that their **school culture had become more student- and learning-centric**. These changes were evident in all three programmes, but were especially prominent in MYP and DP schools, where previously very specific boundaries, based on subject areas, between teachers in teaching, assessment, and student guidance were in place. **In this process, school-based PLCs played an important role** in facilitating teachers' collaboration and cultivating collective responsibility in implementing these IB programmes. As discussed in detail, our survey evidenced that this finding is widely applicable to all 18 schools.

**Illuminating the Key Stakeholders' Perceptions of IB Programme Implementation – Challenges and Issues:** We explored key stakeholders' perceptions of the implementation of IB programmes in terms of **challenges and issues**. The key themes from our qualitative study are listed below:

- Lack of basic academic skills and knowledge
- Double disadvantages and dual burden for certain student groups
- Alignment of student traits with the requirements and expectations of the IB
- Learning challenges from students' perspectives
- Parents' limited understanding of IB assessment
- Limitations in IB training, guidelines, and materials
- Ambiguity in the role of coordinators
- IB being perceived as Western-centric



- Difficulty in forming a shared understanding of the IB
- Uncertainty, mismatch, and disadvantage for IB students in Korean university admission
- Challenges in implementing IB programmes within the National Curriculum
- Lack of IB elective subjects
- Mismatch or disconnect with the Korean administrative system

Some parents perceived a **deficiency in basic academic skills and knowledge** among their children enrolled in IB programmes. They felt that IB education focused too heavily on competencies such as high order thinking skills and open-mindedness, and they were concerned about the lack of students' acquisition of basic knowledge (e.g., factual knowledge or explicit knowledge) and academic skills (e.g., basic literacy, numeracy) in the learning process. Furthermore, some parents felt that inquiry-based, activity-based learning is in and of itself valuable, there should also be more direct transmission of basic knowledge (e.g., dictation) especially for academically weaker students. Interestingly, some IB coordinators also commented on this issue. For example, one MYP coordinator indicated that there are on-going issues with MYP students' "lack of foundational skills and knowledge" in subjects like math and English. A recent study of PYP schools in Korea (Lim, 2022a) noted similar concerns of PYP teachers who were concerned that implementing IB-style lessons might hinder the intensive focus on foundational knowledge, literacy, and numeracy.

Teachers raised the issue that students in IB programmes are often **overwhelmed by the volume, scope, and duration of the summative assessments**, and that some DP students face **the dual burden of preparing for the DP exam and Korean SATs simultaneously**. Many IB students, particularly in the MYP, reported that it is difficult to have to take summative assessment (e.g., final exam) required by the national curriculum while they are asked to work on assignments and projects from the MYP simultaneously, and the assessment periods overlapped, increasing the need for greater preparation time. In addition, PYP and MYP students felt that the amount of learning was greater than in regular schools. In relation to this, it should be noted that the additional assignments and assessments (e.g., summative exam) in the PYP and MYP are determined by schools, not required by the IB. The issue stems from the difficulty in aligning the national curriculum with the assessment criteria and strands for the PYP and MYP, which are detailed later in this chapter.

**Parents** commonly felt that **the IB works, depending on the student's personality or characteristics**, implying that there are certain individual characteristics that are better suited for IB programmes than others. Specifically, they mentioned that extroverted students who are willing to do presentations are more apt for the IB programme. **Students accustomed to the traditional style of learning prevalent in the national curriculum might find it difficult to succeed when learning through an IB framework**, given that different student abilities are required. In a similar vein, **IB students** reported difficulties with writing (MYP), difficulties with understanding words and selecting research topics (PYP), a burden with presentations (PYP), difficulties with group activities (common), and difficulties with data collection (DP). **Parents** also expressed **difficulties in understanding the IB's assessment methods**. As the IB employs a different assessment system (e.g., more process-oriented, performance-based, criteria-reference assessments) than the Korean national curriculum (e.g., multiple choice test).

Teachers stated **limited opportunities and limited available resources in relation to teaching and assessment** as primary challenges. In particular, given the language barrier, they expressed

a desire for **more documents (e.g., assessment guidelines, teaching materials) to be available in Korean with quality translations** from the IBO and local education authorities. In relation to this issue, another constantly recurring comment from teachers was **the lack of the relevance of workshop content and workshop leaders to the Korean context**.

IB coordinators commented on the **ambiguity around their role as coordinators in terms of the responsibility and the authority** expected of them. Given the presence of grey areas in their role, all the coordinators expressed concerns around all IB-related tasks being assigned to a single coordinator, even though the nature of some of the tasks would require school members to collaborate.

Some teachers shared their challenging experiences regarding **translating IB theory into practice** and **collaborating with teachers opposed to the introduction of the IB**. Principals and coordinators also identified this as a challenge in IB programme implementation. This challenge arose during the early stages of IB programme implementation through **a lack of consensus about the rationale of the introduction of IB programmes among teachers**. This could be attributed to resistance to change, concerns about the unfamiliarity of adopting a foreign system, and the burden of increased workload. Another seemingly related issue was that several teachers, mostly DP history teachers, raised questions whether IB education is **Western-centric** in terms of how historical events are framed in the textbook, but this was not a major theme.

We quoted numerous interviews which illustrated the challenges and issues faced by students and parents regarding **the Korean national university entrance exam in relation to DP implementation** in South Korea. All DP coordinators in our interviews emphasized the need for a policy roadmap for DP students applying to Korean universities, given **the limited places currently available for DP students** through the present entrance system. Due to this situation, parents perceived a significant disadvantage for IB students in the university admission process. Both PYP and MYP students often felt they were at a **disadvantage when it came to Korean university entrance**, leading to **anxiety and concerns** about whether they should continue at an IB school as they progress through the national education system.

Teachers perceived IB programmes to be challenging in the context of the national curriculum. In particular, they found it **difficult to design units that align the IB** (curriculum for DP, framework for MYP and PYP) **with the national curriculum**. In particular, MYP teachers felt somewhat overwhelmed by the need to teach content from the national curriculum that is not covered in the MYP. **Another distinctive challenge faced by IB teachers was related to assessments:** collaborative assessment (i.e., having multiple teachers assess the same student), dual assessment (i.e., assessing and recording in both the NEIS and IB systems), and qualitative assessment (i.e., providing quality feedback). Some teachers also noted difficulties with the ambiguity of the assessment criteria for qualitative assessment. In addition, they pointed out that the IB's assessment criteria are too rigid to be aligned with the national curriculum system and that there is a lack of support systems (e.g., information communication system) for effective assessment. Similarly, all the coordinators find it challenging to integrate topics from the national curriculum into the IB frameworks while adhering to the achievement standards mandated by the national curriculum. This challenge is complicated by the lack of interdisciplinary topics and the heavy focus on acquiring knowledge in the national curriculum. These appear to make it difficult for teachers to **implement inquiry-based learning while concurrently meeting the demands of the national curriculum**.

The aforementioned challenges in assessments were further amplified by the **mismatch in integrating IB assessment results into the National Education Information System (NEIS)**, - the mandatory educational data management system for K-12 schools in South Korea. **Working to address this mismatch is time consuming for IB teachers.** Another issue is that **DP subjects are considered as ‘career-oriented elective courses’** in the student record-based (i.e., school-based internal assessment) university admission process. As noted in Chapter 3, high schools in South Korea tend to favor ‘general elective’ courses over ‘career-oriented elective’ ones, given that they are more weighted in university admission. This poses a disadvantage for DP students, as DP subjects such as IB Korean (Language A) and IB English (Language B) cannot count as ‘general electives’. This mismatch was a concern for DP students and teachers because it significantly downplays DP students’ academic performance in the Korean university admissions which values general electives over career-oriented ones. Alongside this challenge, most DP students perceived **a lack of IB elective subjects** as an important problem.

**Illuminating the Key Stakeholders’ Perceptions of IB Programme Implementation – Ambivalent Views:** As discussed above, key stakeholders’ perceptions of the implementation of IB programmes show both positive and negative features of IB education in the context of South Korea. We reframed this phenomenon as ambivalence, as detailed below.<sup>28</sup> The following themes emerged from our qualitative data analysis:

- Short-term challenges but long-term benefits
- Rigorous learning experiences but challenging
- Social-emotional competence vs. stress from cooperative learning
- Teachers’ professional growth vs. teachers’ overwork and burnout
- Two sides of one coin: Korean university admission
- Growth of private supplementary tutoring to complement IB education vs. IB as a cure for private supplementary tutoring Issues
- Potential synergy between the IB programmes and Korean National Curriculum

Parents highlighted **the long-term benefits of participating in IB programmes** (e.g., cultivating life skills and competencies); however, they continued to express concerns about **the visible challenges in relation to Korean university entrance** through the DP in South Korea. Parents appreciated **the academic reporting** that **the IB is a challenging programme**, given the range of assessment types required, including performance assessments, assignments, comprehensive exams, external exams, and report writing. Parents observed **personal and social growth** in their children **through the collaborative learning** actively implemented in the PYP and MYP. At the same time, however, some parents pointed out that collaborative learning can cause **stress for some students** because not all students wish to actively participate in the collaborative learning process. Some students also expressed the feeling of pressure to participate in the collaborative learning process (i.e., **contrived cooperation**) and experienced difficulties in addressing conflicts in collaborative group projects.

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<sup>28</sup> Key stakeholders’ ambivalent perception of implementing the IB is also evidenced in both the sentiment analysis of the open-ended survey question and the quantitative research findings.

A vast majority of teachers expressed a **sense of professional growth and mastery** through their IB programme implementation. Many teachers felt a great **sense of fulfillment** as they saw the improvement in **the quality of their teaching through the progress of their students**. At the same time, however, the implementation of the IB seems to have significantly **increased the workload** for teachers, including unit development, open classroom teaching, co-assessment, double assessment, and submission and storage of assessment evidence. They also felt that they were **time poor** given the limited time they had for providing more individualized feedback to students. Parents appreciated teachers' dedication and care, however, they were also concerned about **teacher burnout**. Parents noted that teachers often worked late, leading to **concern for the sustainability** of IB programmes.

Many teachers and parents were concerned about the possibility that IB could be **disadvantageous in Korean university admissions, given the uncertainty of Korean university pathways for DP students**. Teachers felt that it would be difficult for IB students' learning and growth to be fully recognized in the current documentation system of student performance, known as the National Education Information System (NEIS). Conversely, teachers believed that **if the NEIS could be revised to accommodate IB students' learning experiences and assessment results more than it does now, undertaking IB education could be advantageous** in Korean university admissions through the non-standardized university admission processes, emphasizing performance assessments in particular subjects, or comprehensive student records (i.e., student portfolio of learning outcomes and achievement). Parents held a similar view. Parents also perceived that **the depth of learning activities** in IB classrooms allowed students to internalize what they learned with greater impression, giving them **an edge in admission interviews**.

In South Korea, there exists a context-specific concern that the IB might contribute to expanding the nation's private supplementary tutoring market (Lee, 2023; Ryu & Kim, 2018). Private supplementary tutoring is often referred to as "shadow education" due to its responsiveness to changes in formal curricula and exam policies, and its evolution to meet consumer demand promptly. Under this circumstance, **many parents, who are concerned that the IB programmes may be disadvantageous for university admissions** compared to traditional curricula, **have engaged their children in private supplementary tutoring**. Interestingly, however, **students with IB experiences** perceived that **private supplementary tutoring barely benefits** their learning within the IB framework. Furthermore, **some coordinators** perceived that **IB education can offer solutions** to address the limitations or side effects in the implementation of the Korean national curriculum such as exam-oriented learning and excess of private tutoring.

Finally, many teachers and coordinators pointed out **the problems of IB programme implementation within the constraining setting of the national curriculum**. However, some coordinators in Daegu perceived a **positive, reciprocal influence between IB and the national curriculum**. For example, applying methods practiced in IB classes to non-IB classes and vice versa, occurs. In addition, one coordinator pointed out that she had noticed a natural integration of IB characteristics into her teaching practices, and she encouraged other teachers to continue using such IB ways of teaching even if they transfer to non-IB schools. Similarly, primary teachers felt that **the IB helped them to implement the national curriculum at a deeper level**; they viewed that the learning methods suggested in the IB programme supported students with

learning the given subjects in a more authentic way.

## 5.2. Summary of Key Findings from the Quantitative Study

**Profiling the Landscape of the 18 IB schools' Contexts:** Regarding the landscapes of the 18 schools, we report the key findings of the following areas: Job Satisfaction, School Climate and Culture, Students' IB Classes and School Life, and Students' Views of Continuation in IB Education and Korean University Admission.

As far as teachers' job satisfaction is concerned, overall, there was a **moderately positive sense of satisfaction** among teachers, particularly in terms of their achievements and general job satisfaction. In addition, there was **no significant difference in job satisfaction between IB and non-IB teachers in the schools**, which is contrary to Lee et al.'s (2022a) recent study, comparing job satisfaction between IB teachers and non-IB teachers across eight jurisdictions, including South Korea.<sup>29</sup> Several plausible explanations are detailed in Chapter 4. Of them, we recapitulate the possible reason that the survey questions in our data were not IB-specific, but rather focused on teachers' satisfaction with general issues related to work conditions and professional situations.

Overall, IB teachers perceived a **positive school climate and culture, particularly in terms of mutual support and encouragement for leadership**. This aligns with the findings of previous research (Choi, 2022). However, there is **potential for improvement in areas related to decision-making and the involvement of all stakeholders in school governance**. This pattern was consistent across teachers regardless of the IB programme they teach, their leadership positions, and whether or not they teach IB classes.

IB students agreed **more with the positive features of IB classes and school life than the negative features**. At the same time, there were variations in IB students' perception. The analysis by programme shows that **PYP students** generally viewed their IB classes and school life **more positively than DP and MYP students**. Academically, **students who performed better had a much more positive perception** of their IB class and school life, especially when comparing the highest-performing students to those in the lower performance brackets. These variations in students' perception warrant further investigation.

IB students viewed **their experience of the DP as advantageous for university preparation in terms of its academic content**, but they also revealed an ambivalence as they **felt disadvantaged due to the formal incompatibility of the DP results with the Korean SAT**. These findings suggest that there should be further conversations and considerations for policies for expanding DP students' pathways to Korean universities. At the same time, it is necessary to deliberate on whether those policies would be acceptable to the vast majority of general students who do not choose (or who are not given the opportunity) to undertake the DP.

## illuminating the Key Stakeholders' Perceptions of IB Programme Implementation –

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<sup>29</sup> Lee et al.'s (2022a) study showed that on average, IB teachers had a significantly higher level of job satisfaction than non-IB teachers across the eight jurisdictions.

**Benefits and Opportunities:** We report key findings in relation to the following areas: Teachers' Perception of Key Benefits, Usefulness of Professional Development, Pedagogical Autonomy, Variety of Assessment, Students' Perceived Benefits of IB Programmes, and Perceptions of IB Assessments.

IB teachers placed the highest importance on opportunities for **professional growth and access to diverse educational tools**, while international recognition and networking were perceived as less critical benefits. This pattern was consistent regardless of regional differences, programme status, or teachers' role within the school. However, the findings also suggest that IB teachers may not yet fully appreciate the philosophy and values of IB as an "international" education program, nor the practical utility of the IB network.

In terms of usefulness of professional development, overall, **school-based PLCs, teacher training run by the IB**, training at other schools, and teacher training provided by the local education office were perceived as providing **more useful professional development activities**, than **IBEC which was less attended and perceived to be less useful by some**. These findings are consistent with previous studies (Choi 2022; Na 2021; Shin, 2023b). The language barriers associated with training provided by the IBO were also highlighted in Choi's (2022) research. While school-based PLCs were reported as the most useful professional development activity across all groups of teachers, PYP teachers indicated greater utility of school-based PLCs and PD at other schools. This resonates with prior research on PLCs, documenting that in elementary education, there is, in general, less fragmentation of subjects and a more integrated approach to teaching, thus making PLCs more effective compared with secondary education PLCs (e.g., Lee & Louis, 2019; Lee, Louis, & Anderson, 2012).

Overall, while teachers generally experienced a **reasonable level of autonomy in their work**, especially in teaching methods and homework, they experienced less autonomy in areas like curriculum content, student assessment, and student guidance. **PYP teachers reported higher levels of autonomy** in their professional roles than MYP and DP teachers. The higher autonomy among PYP teachers can likely be credited to the cross-curricular approach and the broader frameworks of the programme. This resonates with the fact that there is no mandated curriculum content for PYP and MYP, whereas DP has its own specific curriculum content; PYP and MYP teachers continue to use the Korean National Curriculum. Nevertheless, unlike PYP teachers, the reasons why MYP teachers experienced relatively low pedagogical autonomy are partly because, in the process of reconstructing the Korean curriculum to align with the MYP framework. Our qualitative study shows that there are instances where forced adjustments of certain subject contents are needed to fit into the key concepts of the MYP framework. The mandatory implementation of Interdisciplinary Units (IDU) also contributes to this issue. We noticed that teachers experienced **relatively less autonomy in assessment compared to the other areas of pedagogical autonomy**. This may be attributed to the strong standardization required by the DP. In contrast, PYP and MYP teachers have the flexibility to design assessments their own way, administer them when they choose, determine the number of assessments, and focus on what they believe is important. Finally, **DP teachers reported higher pedagogical autonomy compared to non-DP teachers within the same school**. This finding is in line with a recent comparative study of IB teachers' professional practices, including pedagogical autonomy, with those of non-IB teachers across eight societies (Lee et al., 2022a).

**Overall, IB teachers apply various methods of assessments. However, the relatively lower**

**use of student self-assessment methods** seems somewhat misaligned with the characteristics of the IB's self-directed learning approach. In other words, this suggests that the contemporary perspective of "assessment as learning" is relatively less embodied in assessment by IB teachers in this study. Additionally, **the less frequent use of teachers' self-development assessment** resonates with the finding noted above that teachers feel relatively less autonomy in assessments. The finding that **PYP teachers use more diverse assessment methods, while DP teachers use the least variety**, may be related to the characteristics of each programme, notably that the DP is a terminal programme linked to externally mandated assessments. Nonetheless, it is an encouraging finding that, **on average, DP teachers use a greater variety of assessment methods compared to non-DP teachers in the same school**. This may be because assessments related to the Korean national curriculum often rely on multiple-choice exams in the form of norm-referenced assessments for summative evaluation. The advantages of the IB's approach to assessment have also been emphasized in prior studies (Baek & Hong, 2022).

In terms of students' perceived benefits of the IB, **"enhanced thinking skills"** was the most recognized. This was followed by **"improved self-directed learning skills,"** and **"increased participation and engagement in classes."** These patterns were **consistently identified across IB students regardless of their programme status and academic performance level**. Another consistent pattern was that **"trust in IB assessment methods"** was not considered as a major benefit from a student perspective. This is interesting, given that one of the main policy justifications currently promoting the introduction of IB programmes in public schools in South Korea is that IB programmes can serve as a potential policy solution to change the assessment and evaluation of the current K-12 education system (see Lee, Wright, & Kim, 2021). This finding suggests that the ultimate goal of introducing the IB into the public school system in South Korea places emphasis more on cultivating student thinking skills, student agency, and student-centered classroom learning.

Generally, IB students acknowledged **a greater number of positive aspects in relation to IB assessment**. Nonetheless, **a concerning finding** was that IB students indicated a strong **sense of burden for taking too many exams** (4.16 on a 6-point Likert scale). This may be because, as our qualitative study findings demonstrate, IB students feel overwhelmed by the volume, scope, and duration of the summative assessments. Specifically, for DP students, they face the dual burden of preparing for the IB and Korean SATs simultaneously. For MYP and PYP students, in addition to their class-based assessments using the IB criteria, they also have to take mid-term and final-term summative tests. These are typically standardized tests (see Chapter 3), because there is lack of consideration for IB grades to be integrated into the National Education Information System (NEIS), the mandated student record system (Kim, 2016, 2018). It is important to note that the negative aspects of IB assessment identified (i.e., heavy assessment load and excessively large scope of assessment) may, in part, be attributable to the incompatibility between IB assessment systems and the domestic system of NEIS and SATs. Policy conversations on this issue are urgently needed.

**Illuminating the Key Stakeholders' Perceptions of IB Programme Implementation – Changes:** We report key findings in relation to the following areas: Changes Attributed to IB Programmes Implementation, Engagement in PLC, Enhanced Student Competencies, Changes in Learner Profile Attributes through IB Education, Focusing on Student Balanced Growth and

Development, and Support for Student Self-Directed Learning.

Overall, IB teachers showed **positive views of a range of changes brought about by implementing the IB programmes**. In particular, teachers were highly positive about the impact of undertaking the IB programmes in **enhancing professionalism, enhancing teaching practices, and creating collaborative environments** within schools. These results resonate with a recent IB commissioned study of IB teaching professionals conducted in eight societies (see Lee et al., 2022a). Prior studies conducted in Korea have also reported improvements in enhanced collaboration and learning among teachers (Choi, 2022; Byeon et al., 2023). Notably, there were less positive perceptions, such as those related to teachers' autonomy in assessment, that aligned with earlier findings discussed in this chapter about teachers' autonomy in assessment. When it comes to comparisons by IB programmes and teachers' leadership positions, there was some variation in teachers' perceptions. **PYP teachers** (vs. MYP and DP teachers) and **teachers holding leadership positions** (vs. regular teachers) perceived **greater positive changes** than their respective counterparts.

Across the 18 schools, there were **routinized, collaborative practices taking place within the context of PLCs**. Teachers actively engaged in collaborative activities such as team meetings, exchanging teaching materials, collaborative professional learning, and collaborating for assessments. In relation to the findings, it should be noted that **attending team meetings, the most frequently reported activity, is an IB requirement**; schools must provide evidence of this to maintain their status as an IB school. Similarly, engaging in collaborative professional learning is also an IB requirement. In a similar vein, recent research in Korea has reported that after implementing the IB, teachers became more actively engaged in PLCs (Byeon et al., 2023). At the same time, however, certain activities, especially those requiring **deeper collaboration like de-privatized practices (e.g., observing others' teaching), joint activities and team teaching, occurred less frequently**. This corresponds with findings in other IB focused research (Lee et al., 2022a; Lin et al., 2018) as well as PLC literature, mostly targeting non-IB teachers (e.g., Lee, Louis, & Anderson, 2012; Lee & Kim, 2016). Nonetheless, this suggests areas where schools might focus to further enhance collaborative professional development. In addition, **PYP teachers were most actively involved in PLCs**, followed by teachers in the MYP and the DP. This finding aligns with existing IB research (e.g., Lee et al., 2022a) and PLC literature (Lee et al., 2012). One possible reason for this pattern could be the fact that primary school teachers teach multiple subjects allowing collaboration to more naturally occur, while secondary school teachers tend to collaborate and teach based more on their own subject. In addition, the transdisciplinary approach of the PYP could be another reason. Similarly, the MYP follows this trend due to its built-in mechanisms for interdisciplinary collaboration such as the IDU, and its emphasis on interdisciplinary approaches, unlike the DP, where subject fragmentation is more pronounced (Wright et al., 2016). Lastly, **DP teachers more actively participated in PLCs than non-IBDP teachers in the same school**. One plausible explanation for this finding is that implementing IB programmes in general requires more teachers' collaboration in terms of curriculum development, planning, lesson plans, and collaborative assessment, to name a few. This is especially true for a vast majority of Korean teachers who are experiencing the implementation of the IB for the first time in their teaching career.

Overall, teachers believed that **IB education strongly supports the development of a wide range of student competencies**, particularly in areas related to inquiry, self-expression, and



problem-solving, though there is still room for improvement in English language skills. **DP teachers** in particular perceived **IB education as highly effective in fostering a broad range of student competencies**, as did teachers in leadership positions. The reason DP teachers perceived the highest level of improvement in students' competencies may be related to the fact that they observed a direct contrast to the exam-focused study typical of the traditional Korean curriculum. This contrast may have allowed them to witness firsthand the different educational experiences that emphasize critical thinking, inquiry-based learning, and holistic development, which are central to the IB programme. Indeed, there is a body of research literature that supports the belief that IB education cultivates students' competences (see Lee et al.'s (2022d) review study of this topic for details). This study adds another empirical finding from the context of Korean public schools. Finally, **non-IB teachers in the IB schools viewed IB education as contributing to enhancing students' competencies**. This finding is reasonably credible because it is possible these teachers may have had opportunities to observe the implementation of IB programmes even without direct involvement in it.

In line with teachers' views, **IB students perceived a moderately high level of competencies**, which they attributed to their IB education. Furthermore, **DP students perceived their competencies** to be significantly higher than those of their non-DP peers.

Like their perceptions of competencies enhanced through IB education, IB students **perceived their LP attributes positively**. The level of the four LP areas perceived by Korean IB students from public schools was similar to their counterparts from international schools sampled in Walker et al.'s (2016) study. This is an interesting finding, considering that a substantial portion of the DP students in Walker et al.'s study had also previously participated in the PYP and/or the MYP. Given that virtually all the IB students in our Korean samples were experiencing the IB programme for the first time without these prior IB experiences, their level of LP attributes is worth noting.

There was a strong consensus among teachers that **students' balanced growth and development is an important educational goal and actively pursued in practice** at their schools. The findings further suggest that this **perception is stronger among teachers involved in IB teaching than their counterparts** (i.e., those not teaching IB). This may evidence how critically whole person development is highlighted through the process of implementing the IB programmes in South Korea.

Finally, teachers believed that their schools are effectively **supporting student self-directed learning**, particularly through individualized feedback and diverse assessment tools. It is also worth noting that **teachers involved in IB classes indicated a more positive perception of supporting student self-directed learning than those not involved in IB classes**. This may suggest that the cultivation of students' self-directed learning ability is emphasized in the process of implementing the IB programmes.

**Illuminating the Key Stakeholders' Perceptions of IB Programme Implementation – Challenges and Issues:** We report key findings in relation to the following areas: Challenges and Issues in Programme Implementation, Work-Related Stress, Issues relating to IB Programme Implementation in Korea, Students' Perceived Challenges and Disadvantages of IB Education, and

Concerns About IB Inducing Private Supplementary Tutoring.

IB teachers perceived **challenges and issues** in implementing IB education, particularly **regarding costs for implementation, dual assessments, and integration within the national curriculum**. This resonates with findings from the qualitative study; teachers expressed worries about potential funding cuts or the discontinuation of the programme if the local education authority's policies change. This is a valid concern because the policies can shift with each new superintendent, who is elected every four years. Additionally, other challenges identified in the survey data were also reflected in the qualitative interview findings; issues related to dual assessments, the national curriculum, and the assessment recording system were salient in our interview excerpts.

IB teachers reported **a moderate impact on their work-related stress**. Among the various stress factors, **excessive lesson preparation** was the most agreed stressor. Following this, both **the burden of grading and excessive administrative tasks** also ranked highly. These findings suggest that there should be policy support for reducing administrative workload and promoting teachers' well-being. To work effectively for lesson preparation, we suggest that PLC should focus more on sharing resources and lesson materials and collaborative lesson planning. Regarding the burden of grading and grade-related administrative tasks, utilizing edu-technology should be considered. Given that many public IB schools already use Google Drive for managing student learning activities and lesson plans, there should be certain systematic support for the utilization of ICT. Finally, the significant group differences in work-related stress by programme warrant further investigation.

Overall, there was significant support for the idea that **IB programmes are well aligned with national education goals and outcomes**. Regarding this, our qualitative data shows that many IB teachers viewed the 2022 Korean National Curriculum as aligning in many ways with the IB programmes as both focus on cultivating student competencies and both are founded on a concept-based curriculum. This may partially explain the survey finding. In addition, IB teachers largely agreed with the idea that **IB programmes should be implemented selectively in schools that choose to adopt them**; there was some interest in eventually developing a national alternative (KB) to the IB programmes. In addition, there was **a moderate level of disagreement about the idea of the widespread adoption of IB programmes in public schools. DP teachers disagreed with the idea more than MYP and PYP teachers**. Based on our qualitative data analysis, this seems to resonate with the concern relating to the disconnection between the DP and SAT (the Korean university entrance exam).

**From students' perspectives, the three main challenges** in relation to IB education were: **too broad a subject scope, high level of content difficulty, and personality traits needed for IB education**. While the first two challenges are reported in other IB studies conducted in other countries (e.g., Hallinger et al., 2010), it is worth explaining students' concern for "personality suitability" in the context of South Korea. This means that students were concerned about whether their personality would fit well with the IB style of learning and assessment or not, considering the difference in teaching, learning and assessment in the national system.

Overall, IB students **disagreed that the introduction of the IB would increase the demand for more private supplementary tutoring**. This finding resonates with that of the teacher survey data. This belief is also echoed in the fact that only about one third of the DP students participated

in private supplementary tutoring whereas many of their peers studying the national curriculum in the same DP schools showed a much higher level of participation in private supplementary tutoring (78%). Based on this, it can be said that key stakeholders such as IB students and IB teachers, are not much concerned about the possible increase in private supplementary tutoring due to the introduction of the IB. One reason for this perception can be found from the finding that DP students in the survey slightly disagreed with the statement that private supplementary tutoring is necessary to keep up with IB education. Notably, our qualitative study found a similar finding that **private supplementary tutoring with a focus on conventional exam preparation would not work for IB education**. At the same time, however, some of the IB students who did participate in private supplementary tutoring, indicated their experience of **tutoring tailored to IB programmes**: tutoring for IB subjects (11.9% among MYP students, 20.7% among DP students), IB Extended Essay (6.9% among DP students) and Theory of Knowledge (TOK) (6.9% among DP students). While still small proportions, they clearly show that **private supplementary tutoring specialized in the IB is just beginning to emerge** (Lee, 2023).

### 5.3. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

We note that there are several limitations to this study. First, our survey data accounted for approximately 60% of all IB teachers and 66% of all IB students in the 18 schools. While the response rates were reasonably acceptable in terms of representativeness of the target populations, we acknowledge that it is unknown to what extent those non-responses would have influenced the results of the survey analysis. Second, this study is a cross-sectional investigation, based on the respondents' perceptions. As a result, it is not possible to firmly establish a causal reference between IB programme implementation and its actual effectiveness. Third, since we do not know certain key demographics, such as students' family socio-economic status, caution should be exercised when interpreting the results regarding group differences presented in this report.

### 5.4. IMPLICATIONS AND CONCLUSIONS

Drawing on our key findings, we provide a number of implications and suggestions for IB schools, local education authorities, and the IBO in relation to the implementation of the IB programmes in South Korea.

As of August 2024, there are 31 public schools authorized by the IBO. In addition, there are 100 schools which officially expressed their interest in the IB programmes and 31 IB candidate schools in South Korea. Taken together, this accounts for approximately 1.1% of the entire K-12 schools, including private schools. Given this fast-growing number, there have been on-going debates around the following issues: Has the (cost)effectiveness of implementing the IB programme been demonstrated? Is the IB programme qualitatively superior to the national curriculum in South Korea? Do IB programmes cultivate students' academic skills and competencies? Do IB students have more competencies than students taking the national curriculum? Is the IB free from shadow education industry in South Korea? Do teachers improve their professionalism and expertise through the implementation of the IB programme? Are parents satisfied with the IB? Have schools as a social organization improved since the implementation of the IB?

The key findings presented in this report provide some answers to these controversial questions based on empirical evidence. Specifically, our study provides more positive answers to the questions relating to students' competences, teachers' professionalism and expertise, and parents' satisfaction. These answers are not drawn from anecdotal evidence but are grounded in rich qualitative interview data and largescale survey data with a solid coverage of the target populations.

In a nutshell, our study suggests that the implementation of the IB in South Korea has brought a number of positive features. Of them, we wish to recapitulate the positive aspects in relation to teachers and students.

Regarding teachers, we note that almost all teachers in both the qualitative and quantitative studies recognized that their expertise was enhanced through the implementation of the IB. Particularly, their ability to interpret curriculum, reconstruct curriculum, and their self-efficacy in process-based assessment were highlighted by teachers. Many teachers expressed feeling a sense of growth, accomplishment, and mastery. What makes teachers feel this way? Our study suggests two pieces of evidence. First, teachers' observations of changes in students' engagement in class and their enhanced skills since the implementation of the IB gives them a sense of accomplishment. Second, teachers' engagement in school-based PLCs made them feel supported in upskilling, through mutual support and learning, and collaboration. Note that virtually every teacher in the 18 IB schools was new to the IB. This placed new and experienced teachers in a relative position of equality. However, paradoxically, because they are novice to the IB programmes, there is a strong desire to learn from each other, which is evidenced in their strong engagement in PLCs. In other words, teachers routinize a set of collaborative activities such as curriculum, teaching and learning, assessment-related meetings, sharing of classroom assessment cases and materials, curriculum mapping activities, and internal moderation of assessment, to learn from each other. Through our interviews and survey data analysis, we have concluded that spaces, times, and opportunities for teacher collaboration are built into the IB programme implementation, leading to the enhancement of teachers' expertise. In other words, through the implementation of the IB, teachers expand their "reservoir of repertoires of practices" as they learn from their colleagues. In summary, school-based PLCs become commonplace during the implementation of IB programme in South Korea. It should be noted that a body of major educational organizational studies has demonstrated that PLCs are the engine for sustainable school improvement (Louis et al., 2008; Lee & Louis, 2019). In this regard, we believe that the implementation of the IB plays an important role in (re)forming and re-energizing school-based PLCs.

Changes perceived by students are remarkable. Overall, students feel that school life is more joyful, the relationships with teachers and peers are improving, partly because of their learning experiences from the IB. Equally important is that a majority of students perceived that a range of life skills, including thinking skills, self-expression, communication, global citizenship, inquiry and self-directed learning have improved since the implementation of the IB. This self-perception is salient in both qualitative and quantitative data. Even though this is based on their self-perception, implying that their actual competencies may not necessarily be equivalent to what

they believe, it is worth noting that teachers and parents hold the same perception. In short, students clearly benefit from the implementation of the IB.

At the same time, we wish to note several caveats in implementing IB programmes in South Korea. A concerning finding relates to teachers' heavy workloads and (potential) teacher burnout. In many teacher interviews, teachers expressed the sentiment, "I'm putting my heart and soul into this." In Korean, this expression means "putting in so much effort until exhaustion, enduring hardships, and ultimately sacrificing one's soul for the work." This indicates that teachers implementing IB programmes in Korea are experiencing (potential) burnout. Indeed, similar results were found in our survey data analysis regarding teacher work-load issues. This situation raises concerns about the sustainability of IB programme implementation in Korea. The continuing operation of the IB programmes will not be sustainable if it is solely led by one or a few individual teachers in each school. For sustainability, we believe that addressing the issue of workload and potential teacher burnout in some way is crucial before scaling up IB programmes in Korea.

Alongside the issue of teachers' workload and burnout, our study illuminates several institutional issues in relation to the sustainability of the implementation of the IB. As our interview data demonstrates, there are several areas where the national curriculum and the Korean university entrance exam (i.e., Korean SATs) do not align with IB programmes (see Chapter 3 for details). For IB programmes to be firmly established, the institutional mismatches existing in the university entrance exam should be addressed first. Without coherence with existing systems, the legitimacy of the implementation of the IB can be challenged. In addition, research on the issue of the cost-effectiveness of IB programmes is needed, given some stakeholders' concerns for, or criticism of the cost, of the implementation of IB programmes.

In conclusion, our study empirically demonstrates that the implementation of the IB in South Korea has contributed to improving the 18 schools in terms of enhancing students' competencies and wellbeing, teachers' professionalism and expertise, collaborative school culture, and parents' satisfaction of their children's education, although there are certain areas to be further improved. At the same time, considering the emerging issues with regard to the sustainability of IB programmes in Korea discussed above, we suggest that a steady step-by-step approach is needed, addressing teacher- and institutional-level issues by means of collaboration and conversation among policymakers, educators, parents, and students, rather than a speedy scale-up of IB programmes.

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# APPENDICES

## Appendix 1-1: Sampling for Qualitative Study

In accordance with the research plan, we have selected three schools each for the DP, MYP, and PYP. To ensure the maximum variation of relevant school demographics in our sampling, we have considered the following publicly available school demographic information:

1. Language of Instruction: The majority of the 18 schools utilize both English and Korean as their medium of instruction. Taking this into account, we have chosen seven schools that use both languages and two schools where Korean is the medium of instruction.
2. Province/Location: Out of the 18 schools, 4 are located in Jeju Province and 14 are situated in Daegu City. Consequently, we have opted for 3 schools in Jeju and 6 schools in Daegu. The decision to slightly oversample schools in Jeju is driven by the importance of achieving balance by including at least one school for each IB program from both Jeju and Daegu.
3. School Size (by Number of Students): The 18 schools exhibit a range of sizes. We have, therefore, selected a diverse group of schools, which includes the smallest school (an elementary school in Jeju) and the largest school (a middle school in Daegu).
4. Teacher-Student Ratio: The teacher-student ratios vary among the 18 schools. We have deliberately chosen a mix of schools with different ratios, encompassing the school with the lowest ratio (a high school in Daegu) and the school with the highest ratio (an elementary school in Daegu).
5. Public/Private: With only one private school among the schools considered, the majority are public institutions. Hence, we have included this private school in our sampled schools (a private middle school in Daegu).
6. Co-Educational: The schools primarily follow a co-educational model, except for a single boys' school. We have included this boys' school in our sampled schools (a private middle school in Daegu).
7. Percentage of School Budget Allocated to Student Welfare (as a Proxy Measure of School SES): To capture a wide range of school SES levels, we have selected schools with varying allocations to student welfare. This encompasses the school with the highest SES (Daegu Joong Ang Middle School) and the one with the lowest SES (a high school in Daegu).
8. Full (Entire Grade) or Partial (Selected Classes) Implementation of the IB Program: While most schools implement the IB programme for the entire grade, three schools opt for partial implementation. As a result, we have included two partially implementing schools along with seven fully implementing schools.
9. Other Important Contextual Factors: Considering the specific context of Korean schooling systems, we have included two schools to ensure maximum variation in school demographics. The first is a school affiliated with a university. In general, university-affiliated schools in Korea hold greater appeal to parents due to their possible access to university resources. Also, this school is not designated as an innovation school whereas most of the other schools are designated as an innovation school. In South Korea, innovation schools designated by provincial governments can mobilize more resources

in relation to innovation in teaching and assessment, and tend to enjoy relatively more curriculum autonomy, compared to regular schools (Lee et al., 2022c). The second is a special purpose high school. Typically, such schools employ selective admission policies, resulting in a student body composed of high-achieving students.



**Appendix 1-2: Characteristics of the 18 Schools for Quantitative Study & the Nine Selected Schools for Qualitative Study**

School name	Programmes	Language of instruction	Province	School size (by number of students)	Teacher-student ratio	Type	Co-educational	% of school budget allocated to student welfare (proxy measure of School SES)	Full/partial program implementation	Others
Daegu1	DP	English, Korean	Daegu	751	11	Public	Co-educational	44.3	6 classes out of a total of 30 classes	Innovation school (called Mirae school in Daegu)
Daegu2	MYP	English, Korean	Daegu	527	10.3	Public	Co-educational	35.4	Full	University affiliated school
<b>Daegu3</b>	<b>PYP</b>	English, Korean	Daegu	519	17.9	Public	Co-educational	31.9	Full	<b>University affiliated school</b>
Daegu 4	PYP	English, Korean	Daegu	173	9.6	Public	Co-educational	18.4	Full	Innovation school (called Mirae school in Daegu)
Daegu 5	PYP	English, Korean	Daegu	343	13.2	Public	Co-educational	19.2	Full	Innovation school (called Mirae school in Daegu)
Daegu 6	PYP	English, Korean	Daegu	287	14.4	Public	Co-educational	16.2	Full	Innovation school

										(called Mirae school in Daegu)
<b>Daegu 7</b>	<b>PYP</b>	English, Korean	Daegu	611	<b>19.1 (highest)</b>	Public	Co-educational	16.2	Full	Innovation school (called Mirae school in Daegu)
Daegu8	MYP	Korean	Daegu	687	13.7	Public	Co-educational	19.6	Full	Innovation school (called Mirae school in Daegu)
Daegu9	PYP	English, Korean	Daegu	298	13	Public	Co-educational	14.8	Full	Innovation school (called Mirae school in Daegu)
<b>Daegu10</b>	<b>MYP</b>	English, Korean	Daegu	327	12.6	<b>Private<sup>30</sup></b>	<b>Boys' school</b>	<b>0.6 (lowest)</b>	Full	Innovation school (called Mirae school in Daegu)
<b>Daegu11</b>	<b>MYP</b>	<b>Korean</b>	Daegu	<b>764 (largest)</b>	13.6	Public	Co-educational	19.2	Full	Innovation school (called Mirae school in Daegu)

<sup>30</sup> In South Korea, historically, private schools are also considered part of the public school system, as they are required to comply with the national curriculum and government regulations in exchange for receiving government subsidies.

<b>Daegu12</b>	<b>DP</b>	English, Korean	Daegu	429	9.5	Public	Co- educational	<b>56.8 (highest)</b>	<b>Some classes</b> in the 2nd and 3rd grades	Innovation school (called Mirae school in Daegu)
Daegu 13	PYP	English, Korean	Daegu	294	14	Public	Co- educational	17.5	Full	Innovation school (called Mirae school in Daegu)
<b>Daegu14</b>	<b>DP</b>	English, Korean	Daegu	299	<b>6.1 (lowest)</b>	Public	Co- educational	38.4	<b>5 classes out of a total of 18 classes</b>	<b>Specialized high school &amp; school choice available</b>
<b>Jeju1</b>	<b>PYP</b>	English, Korean	Jeju	<b>55 (smallest)</b>	6.9	Public	Co- educational	28.8	Full	Innovation school (called autonomous school in Jeju)

<b>Jeju2</b>	<b>DP</b>	<b>Korean</b>	Jeju	352	8	Public	Co-educational	44.9	<b>Full (the DP students will take their first exam in Nov.)</b>	Innovation school (called autonomous school in Jeju) & <b>school choice available</b>
<b>Jeju3</b>	<b>MYP</b>	English, Korean	<b>Jeju</b>	379	11.8	Public	Co-educational	34.4	Full	Innovation school (called autonomous school in Jeju)
<b>Jeju4</b>	<b>DP</b>	<b>Korean</b>	Jeju	352	8	Public	Co-educational	44.9	<b>Full (the DP students will take their first exam in Nov.)</b>	Innovation school (called autonomous school in Jeju) & <b>school choice available</b>

Note. The schools highlighted in bold are the cases for our qualitative research.

## Appendix 2-1. Interview Protocol for School Principal

1. Why did you decide to introduce the IB Programme at your school? Can you elaborate on what characteristics or circumstances at your school led you to do so?
  2. Can you describe the process of introducing the IB Programme at your school, from preparation to implementation?
  3. What are the main challenges in your school related to the implementation and operation of the IB Programme? (such as challenges connected with decision-making, leadership roles, areas for improvement at the school level, or more generally within the school itself.)
  4. What have been the biggest changes in your school, comparing before and after the implementation of the IB Programme? What positive or negative changes have you experienced, and what opportunities or advantages do you see from the implementation of the IB Programme? (Please feel free to comment on organizational culture as well).
  5. What is your relationship with your local education authority, and how do they cooperate and support you in running the IB Programme?
  6. What challenges do you foresee at the institutional level in implementing the IB Programme in the national curriculum context in the long term, and what solutions or directions would you suggest?
- \*\*Finally, please let us know if there is anything you would like to share that we have not asked you.

## Appendix 2-2. Interview Protocol for Coordinator

1. Please describe the process of introducing the IB Programme at your school, starting with the preparation for its introduction?
  2. What are the main challenges in your school related to the implementation and operation of the IB Programme? (Feel free to talk about decision-making, leadership roles, areas for improvement at the school level, or within the school itself.)
  3. What are the most significant changes you have seen in your school, comparing before and after the implementation of the IB Programme? What positive or negative changes have you experienced, and what opportunities or advantages do you anticipate in the future? (Please feel free to comment on organizational culture as well).
  4. How do you think the implementation of the IB Programme has changed teachers' practices in the areas of curriculum, class teaching, assessment, reporting, and feedback in your school?
  5. How do you think the implementation of the IB Programme has changed the classroom management of teachers in your school?
  6. What have been some of the difficulties (challenges or issues) associated with implementing the IB Programme in the context of the national curriculum? What activities are you doing in your school to address them? (Please provide specific examples of the activities ( ) you have mentioned)
  7. In the long term, what challenges do you foresee at the institutional level in implementing the IB Programme in the context of the national curriculum? What solutions or directions would you suggest for these challenges?
  8. How are professional learning communities faring in the implementation of the IB Programme? What are the differences in the operation of professional learning communities before and after the implementation of the IB Programme? In what ways are these professional learning communities helping the IB Programme? Please share any specific examples.
  9. As a coordinator, please tell us how the implementation of the IB Programme affects your job satisfaction or stress. Please provide examples to support / illustrate this.
  10. What are your thoughts or suggestions on the sustainability of the IB Programme from the perspective of a coordinator, both at the school organization level and the system level?
- \*\*Finally, if there is anything else you would like to share that we have not asked, please do so.

### **Appendix 2-3. Interview Protocol for Individual Teacher**

1. Comparing your school and classroom before and after the implementation of the IB Programme, what are the biggest changes you have seen in your school and classroom? What positive or negative changes have you experienced and what opportunities or advantages do you see for the future? Comparing your school before and after the implementation of the IB Programme what differences, if any, do you think are due to the IB Programme?
2. How do you think the introduction of the IB Programme has changed your curriculum, teaching, assessment, reporting/feedback, and classroom management? Please describe with specific examples.
3. Describe some of the specific feedback you have received from students and parents since the implementation of the IB Programme. What are you doing as a teacher to respond to such feedback? Please describe with specific examples.
4. What challenges do you see in implementing the IB Programme effectively at the classroom level (and what do you think is the role of the teacher in addressing them)?
5. As a classroom teacher, what are the main challenges you face in integrating the IB Programme and the National Curriculum in the classroom, and what actions have you taken to overcome these challenges? (We would be grateful if you could share your experiences, both successful and unsuccessful, for example, in terms of technology, (digital) resources, teaching methods, etc. that you have used to effectively integrate the IB Programme with the National Curriculum).
6. How do you think the changes in the schooling and classroom environment resulting from the implementation of the IB Programme have affected the overall job satisfaction of teachers at your school?
7. Could you share your own experience of participating in the IB Programme? How do you think IB teacher training differs from traditional teacher training? In what ways do you think you have grown as a teacher through IB teacher training?
8. Do you feel that your assessment skills have improved as a result of implementing the IB Programme and why do you think so?

\*\*Finally, please let us know if there is anything you would like to share that we have not asked you.

#### **Appendix 2-4. Interview Protocol for Teacher and Coordinator FGI**

1. In addition to what you mentioned in your individual interviews, what changes have you seen and felt in the implementation of the IB Programme so far? What opportunities, advantages, challenges, etc. have you seen in this process of change?
  2. I would like to know if there have been any "collective" activities or efforts (beyond the individual teacher level) to address the difficulties or challenges you mentioned above, and if so, what were the results?
  3. Do you collaborate among teachers to reflect or integrate the IB curriculum (framework) into the National Curriculum? Can you share any examples of successful or unsuccessful collaboration?
  4. How do you think the implementation of the IB Programme has changed the overall climate and culture in your school?
  5. What role do you think professional learning communities play in the implementation of the IB Programme in your school? Can you share any specific examples of how they have helped you (or your colleagues) implement the IB Programme?
  6. If you have previously worked in an innovation school<sup>31</sup> (if not, ask the same question for teachers previously working in regular schools), what do you think is similar and different between your previous school and the current IB school? (e.g., in terms of school climate, teacher interactions such as teacher collaboration and professional learning communities, or administrative aspects such as job satisfaction, workload, student guidance, etc.).
- \*\*Finally, please let us know if there is anything else you would like to share that we have not asked about.

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<sup>31</sup> Innovation school in the context of South Korea refers to a new model of school, initiated by local educational authorities, that aims to improve the whole school by focusing on relationships among school members in particular and school culture in general. While innovation schools have such characteristics in common, there are different models of innovation school across various local educational authorities in South Korea (Lee et al., 2022c).



### Appendix 2-5. Interview Protocol for Student FGI

1. What do you think are the advantages of attending an IB school? What changes, if any, have you noticed in your studies and/or school life before and after joining the IB Programme? (Follow-up to question) Please share any challenges you face in your studies and/or school life as a result of participating in the IB Programme and how you deal with them.
2. What do you think are the main advantages or challenges you have compared to your friends who do not have an IB education?
3. Comparing the IB Programme to your previous education, what do you think is different about the way your teachers teach and assess in class, and how has this made a difference to your studies? (Follow-up to question) Tell me more about some of the ways in which the IB's unique teaching and assessment methods have benefited you, and some of the ways in which they have not. Which ones stand out to you the most?
4. Have you noticed any changes in your willingness to study independently or the amount of time you spend studying since starting the IB Programme?
5. Have you become more interested in issues or situations in other countries other than your own since starting the IB Programme?
6. How has your level of satisfaction, wellbeing, or happiness with your school life changed since starting the IB Programme? Conversely, how has your level of stress changed? What are some specific examples of this change and why do you think it has happened?
7. Share any changes you have noticed in the atmosphere of the whole school or your class since starting the IB Programme? Do you have any regrets about these changes?
8. Do you feel proud to attend an IB school? (If so, why?)
9. (Question for elementary/secondary students) When you go to middle/high school, would you like to attend a school with the IB Programme again? Why do you think so?
10. (Question for high school students) If you were to attend high school again, would you choose a school with an IB Programme? Why do you think so?
11. (Question for elementary school students) How do you think the IB Programme will help you in your transition to middle school, and if you have any concerns about the IB Programme, please feel free to tell us. (Question for middle school students) How do you think the IB Programme will help you in your transition to high school, and if you have any concerns about the IB Programme, please feel free to tell us. (Question for high school students) How do you think the IB Programme will help you in your transition to university, and if you have any concerns about the IB Programme, please feel free to tell us.

\*\*Finally, let us know if there's anything else you'd like to talk about that we didn't ask.

## Appendix 2-6. Interview Protocol for Parent FGI

1. How do you think the IB education compares to conventional public education *or Su-neung* (i.e., the national testing for university entrance in Korea) preparation studies? What do you think are the advantages and disadvantages compared to students who do not take the IB?
2. What changes do you think your school has made to its teaching and assessment methods since implementing the IB Programme, and how do you think these changes have affected your child's learning, achievement, school behavior, friendships, etc. (e.g., self-directed learning, study time)?
3. What, if any, concerns or difficulties does your child have with his/her IB education, and what efforts and support do you provide as a parent to address them?
4. Where do you get information or resources for your child's IB education? What do you usually get, and what are some examples of what you find most helpful? (Do you rely on private supplementary tutoring for information or resources, and if not, why?)
5. Do you have any concerns about IB education in relation to your child's transition to secondary school or eventually to university? What policy or institutional support or enhancements do you think are needed to address these concerns?
6. What are the main topics of discussion in your parent community or online chat rooms regarding IB education? What do you think is the overall parents' opinion on IB education?
7. Have you noticed any changes in your role, attitudes, or perspectives on your child's education as a parent since participating in IB, compared to conventional education, and if so, what are they?
8. Would you like your child to go to a school that offers the IB Programme again when he/she reaches upper secondary school, and if so, why do you think so?

\*\*Finally, if there is anything else you would like to share that we didn't ask, please let us know.

**Appendix 3-1. Codebook of Teacher Interviews**

Related RQs	Category	Related Stakeholders	Themes	Pattern Codes	# Frequency	Code Definition
RQ2	Opportunities and merits	Student	Academic achievement	Concept-based knowledge acquisition	5	Students improved their ability to apply knowledge to other situations and contexts through concept-based learning.
				Improved inquiry skills	9	Students improved their inquiry skills through rich experience research and analysis.
				Improved presentation and expression skills	8	Students improved their oral communication skills through rich presentation experiences.
				Increased class participation	13	Students' class participation improved overall, including lower-level students.
				Improved thinking skills	3	Students improved their creative, open-minded, logical, and analytical thinking skills.
		Social emotional development	3	The use of criteria-based assessment reduced competition among students, which positively impacted their social and emotional development.		
		Teacher	Curriculum and instruction	Shared understanding of mission/vision/image of IB learner profile	9	Teachers, students, and parents had a shared understanding of the school's mission/vision and learner profiles.

				Rich opportunities for exploration	18	Teachers were able to provide students with rich inquiry opportunities, including data collection and analysis.
				Learning experiences closer to the nature of the discipline (subject)	11	By engaging students in inquiry activities, teachers were able to provide learning experiences that were closer to the nature of each subject (discipline).
				Increase student-teacher interaction and teacher's understanding of students	7	Increased teacher-student interaction expanded teachers' understanding of students' knowledge, interests, and ways of thinking.
			Assessment	Increased assessment capacity	6	Teachers' overall assessment skills improved.
				Authentic practice of process-based assessment	9	Teachers were able to practice learning and performance-based assessment, including providing feedback on formative assessments.
				Securing systematic assessment	20	By utilizing the grading criteria, rubrics, etc., teachers were able to secure the systematicity of assessment that is difficult to achieve with the national curriculum standards alone.
				Increase assessment reliability	5	Teachers' confidence in student assessments was improved through clear grading criteria, collaborative

						assessment, and internal/external evaluation.
			Teacher professional development	Revitalization of formal and informal teacher learning communities	7	Formal and informal teacher learning communities were activated while teachers were participating in a collaborative practice of unit development and student assessment/evaluation.
				Increased professional development opportunities through teacher research	39	Teachers have expanded their professional development opportunities by participating in IBO trainings, district trainings, and teacher learning communities.
				Enhanced coherence among curriculum, instruction, assessment, and record through cross-grade/cross-departmental discussions	2	Teachers have enhanced coherence among their curriculum, instruction, assessment, and records through cross-grade/cross-departmental discussions.
				Changed perspectives on teaching and assessment	4	Teachers' perspectives on teaching and assessment have changed as a result of implementing the IB curriculum (they have become advocates of process-focused teaching and assessment)
RQ3	Challenges and issues	Student	Academic achievement	Burden of summative assessment volume, scope, and duration	6	Students perceived the large amount of tasks, scope and length of the IB summative assessment to be a burden on their studies.

				Burden of the dual assessment system (IB + Korean SAT)	9	Students struggled to prepare for IB assessments, midterm and final exams, and SATs at the same time in the current assessment system.
				Advantages and disadvantages depending on the new assessment method	20	Teachers and students perceived that IB assessments favored upper-middle-level girls who were more descriptive, self-directed, and had better time management skills, while disadvantaging lower-middle and lower-baseline boys.
		Teacher	Curriculum and instruction	Difficulties in implementing IB within the national curriculum system	23	Teachers found it challenging to implement the IB within the current school curriculum framework.
				Difficulties stemming from the different perspectives on good education between the National Curriculum and IB	13	Teachers found it difficult to satisfy both the knowledge-acquisition-based curriculum and the inquiry-based curriculum.
				Difficulties in designing units in conjunction with the National Curriculum	3	Teachers found it difficult to design IB units that align with the national curriculum content and standards.
				Difficulties in running IB/non-IB programs simultaneously	11	(Daegu) Teachers had difficulty balancing IB and non-IB programs in the school calendar.

				Difficulties arising from differences in teacher beliefs	43	Teachers had difficulty implementing the IB because some teachers had negative beliefs about the IB's educational philosophy, interdisciplinary curriculum, and research climate.
			Assessment	Difficulties with multiple assessments	2	The number of students assessed per teacher increased as multiple teachers were required to assess the same student.
				Difficulties with dual assessment	18	Teachers struggled to keep up with the assessment and recording of the NEIS.
				Difficulties with qualitative assessment	9	Teachers were challenged by a lack of experience and expertise in qualitative assessment.
				Difficulties with the rigor of the IB assessment criteria	6	Teachers found it difficult to write subject-specific assessment criteria or to align with the National Curriculum criteria due to the rigor of the IB assessment criteria.
				Difficulties with the lack of an assessment support system	11	Teachers perceived a lack of support systems (i.e., software) for creating and managing qualitative assessments.
				Teacher professional development	Difficulties with concepts and terminology used in the IB Guidelines	3
			Linguistic difficulties		17	Teachers experienced language difficulties with the IB guidelines,

						materials, and teacher training being delivered in English.
				Difficulties with prohibitions on sharing information between schools	2	Teachers found that the inability to share IB practices and information across schools exacerbated the challenges of implementing IB.
				Lack of practicality in district training	10	Teachers perceived that the teacher training programs provided by the Ministry of Education were mainly lecture-based and not practical in the field.
			Teacher placement	Absence of IB training in teacher preparation programs		Teachers who had completed pre-service teacher education programs centered on the national curriculum were facing challenges when they were placed in IB schools.
				Difficulties with teacher rotation	6	At the school level, there has been a loss of professional capital as teachers with experiential knowledge of IB have moved on to other schools.
				Difficulties with teacher assignments	7	When teachers who did not favor IB were assigned to IB schools, teachers struggled to implement the curriculum.
			University and career	Concerns about university entrance examination disadvantage	11	Teachers were concerned that IB would disadvantage their students' university applications.



			etc.	Competition between schools	9	The IB accreditation process has led to competition among schools and complaints to the local office of education to keep other schools in check.
RQ5	Changes	Teacher perception	Teaching and assessment	Changed perspectives on teaching and assessment	4	Teachers' perspectives on teaching and assessment have changed as a result of implementing the IB curriculum (from assessment for screening to assessment for cultivating).
			Job satisfaction	Increased teacher workload from running IB	25	Teachers' workload has increased because of the unit development, open lessons, dual assessment, collaborative assessment, consultation, evidence submission/archiving, and other tasks associated with IB implementation.
				Reduced job satisfaction	3	Teachers' overall job satisfaction decreased due to the increased workload.
			Teacher professional development	Increased commitment to professional development	7	Teacher commitment to professional development has increased.
				Increased authenticity in teacher learning communities	5	Teachers' professional learning communities increased their authenticity in teaching and assessment.

			School culture/climate	Creating a culture of student- and learning-centered deliberation and collaboration	35	A culture of collaboration centered on individual students and their learning was established among teachers.	
				Separation and conflict between teachers	15	(Daegu) Teachers struggled with increased separation and conflict between IB and non-IB teachers.	
		Parent perception	Parent perceptions	Improved parental awareness of IB	6	Parents' understanding and positive perceptions of IB increased.	
	Perception /beliefs			For successful IB implementation	Enhancing teacher belief and commitment	20	Teachers believed that teacher belief in and commitment to IB is critical for the success of IB implementation (i.e., sustainability of IB lies in internal teacher momentum.)
					Reducing administrative workload	7	Teachers suggested reducing their administrative workload.
					Reducing the number of students per teacher	6	Teachers suggested reducing the number of students per teacher.
					Reducing a total number of instructional hours per teacher	2	Teachers suggested reducing the number of instructional hours per teacher.
					Empowering principals and teacher leaders	8	Teachers advocated for strengthening the role of school principals and teacher leaders.
					Improving IBO-provided teacher training programs	7	Teachers suggested improving the quality of the IB teacher training instructor pool.

			Providing support for low learners	8	Teachers suggested that the IB programme should improve its support for slow learners.
			Changing teachers' epistemological perspectives	7	Teachers perceived that a fundamental shift in teachers' epistemological perspectives was needed.
	Implementation Practice	Sustainability of IB	Concerns about the sustainability of IB in Korea	22	Teachers were concerned that the IB programme would not be sustainable in the face of declining district support.
			Combining diagnostic and written assessments	5	Teachers combined IB assessments with district-provided diagnostic assessments and paper-based assessments.
			Combining lecture-style teaching with IB teaching	9	Teachers incorporated lecture-based instruction as needed.
			Intervening in students' group activities	7	Teachers intervened in students' group work to provide feedback, mediate conflicts, or accommodate level differences.
			Developing/operating interdisciplinary curriculum	4	Teachers from multiple disciplines worked together to develop/implement interdisciplinary curriculum.
			Designing/operating inquiry-based teaching and learning	5	Teachers designed and implemented inquiry-based lessons.

			Preparing/conducting summative assessments	9	Teachers engaged parents in preparing summative assessments.
			Engaging with the community	6	Teachers designed and implemented community engagement activities by using cross-curricular time.

**Appendix 3-2. Codebook of Parent Interviews**

<b>RQs</b>	<b>Categories</b>	<b>Stakeholders</b>	<b>Themes</b>	<b>Pattern Codes</b>	<b>Frequency (grounded)</b>	<b>Code Definition</b>
<b>RQ1</b>	School Context/Characteristics	School	School	School renovation	3	Schools have been expanding for educational conditions
				Shared culture	3	There is a culture in which students share learning materials at school.
		Parents	Parents	Efforts to Participate in School Education Programs	3	Parents make various efforts to participate in school education programs.
				Efforts to acquire information (parent)	7	IB-related information is being acquired on its own through the Internet and communities.
				Parental indifference	7	The degree of interest of parents was larger than expected, and the community was not active.
				Mistrust of existing public education	9	Disappointment and distrust of existing public education exist in parents.
				Willingness to enter an IB school	4	There is a willingness to go to IB school.

			Local communities	Community's negative perceptions and indifference	6	Public opinion is not good due to the perception of disadvantage to top students and inconsistency with existing education methods
				Sharp influx of outsiders	23	There is an influx of outsiders who wish to enter the IB
		Local communities	Private Tutoring	Anxiety to participate in private education	13	Parents decided to make students participate in private education due to lack of education, concerns about basic education, anxiety about falling behind in competition, and instability of the system
				Development of private education after IB	12	Private education has increased after the introduction of IB due to academic benefits and adaptation to education policies through private education

				Diverse Participation in Private Education	8	Students are participating in essay writing, reading, mathematics, speech, English, arts and sports, and Internet lectures
				Low compatibility between IB and private education	16	IB's inherent characteristics and assessment methods do not fit and students do not feel utility
RQ2	Opportunities and Merits	Student	Academic	Strengthening Self-Direction(Student agency)	10	Increasing self-directed learning and problem-solving skills for students to study on their own
				In-depth learning is possible through inquiry-discussion learning	12	In-depth learning and reflection are possible through inquiry-discussion learning
				Improvement of one's thinking and language skills	6	Language skills, discussion skills, expression skills, thinking skills, questioning skills, and communication skills are improved.
		Socio-emotional	Improving parent-child relationships	12	Parent-child understanding and relationships are improved	

				Efficacious children growth	1	The IB's assessment content sharing and feedback system can confirm the growth of not only children but also students of other ages.
				Personality growth through cooperative learning	19	Through cooperative learning, role division, mutually beneficial attitudes, empathy, consideration for others, and emotional growth are felt.
				Happy School Life	14	Students love to go to school, and relationship between friends and teachers gets better
			Career path	Advantage in university entrance exams	4	In the performance assessment-oriented and academic-oriented entrance examination system, it is advantageous in the method of writing a student record
				Open to study abroad	4	It has the advantage of being able to apply to both domestic and overseas universities.



				Good connectivity between IB schools	4	The connection between IB schools is excellent, which is a positive factor in entering higher schools.
				Long-term advantage after school	5	IB can develop necessary competencies after entering university or entering society.
		Teacher/School	Teacher/School	Satisfaction with the school's own program	3	There are many school-run programs, after-school programs.
				Teachers' efforts to extract student knowledge	2	Teachers try to withdraw knowledge, not just instill it in students.
				Teacher's dedication and consideration	9	Teacher commitment and consideration are felt in educational activities.
		Education Office/Institutions	Education Office/Institutions	Full support from the Office of Education	5	Full support from the Office of Education, such as educational equipment and free English/foreign language education programs, etc. has been provided.
				Breakthrough Role in Educational Reform	3	IB can make a breakthrough in Korea's education reform.

				Stable operation of IBO	1	It is stable for educational reforms and external changes because it has an IBO.
<b>RQ3</b>	Challenges and Issues	Student	Academic	High level of difficulty	14	Difficulty level, personality match with student, anxiety in academic background, disadvantage in assessment method
				Personalities fit for IB	8	There are students who fit IB according to characteristics such as student's personality or gender.
				Complaints about assessment/evaluation	8	Doubt and distrust of the IB's subjective and narrative assessment/evaluation method conducted by the teacher.
				Disadvantage at the educational level	13	It is disadvantageous compared to students taking the national curriculum in basic academic background, basic knowledge, English, etc.

				Stress and disadvantages in cooperative learning	8	They are stressed and disadvantaged by differences in skills between students, problems reflecting the degree of contribution, and problems with free rides.
				Questions of student growth direction	6	I admit that the student has grown, but I have questions about the direction.
			Career path	Transfer/drop/give up because it doesn't fit the IB	3	I heard that students who expected IB but didn't get it transferred and dropped out.
				Disadvantage in Korean university entrance	33	IB is at a disadvantage due to subject matter, realistic test preparation, school record recognition, and university indifference
				Lack of IB linkage in Korea	4	The link between PYP->MYP->DP and university entrance is not properly established
				Lack of university information	2	Lack of information on university entrance and overseas entrance provided by schools.

				Difficult to commute to and from school	5	It is difficult to commute to school geographically because not many schools run IB.
		Teacher /School	Teacher /School	Some Teachers' Skepticism toward IB	5	Disadvantage in university admission, exclusive attitude toward entering IB school
				Concern about teacher burnout	3	Teachers are working overtime and overtime and are committed to IB education with a sacrificial attitude, but they are concerned about burnout.
				Poor information for parents	6	Parents feel brochures and information from schools insufficient
		Institutions	Institutions	Instability of Elected Superintendents	1	I am anxious that the IB policy will change depending on the election results.
				IB's inherent problems	1	There is instability in the school recertification problem of the IB system.

				Policy instability	5	The volatility of Korean education policy is severe, which is expected to negatively affect students attending IB schools.
				Lack of adjustment of IB to domestic system	5	Since the domestic academic system is centered on general schools, the academic schedule on campus is operated based on general classes, or IB-related compatibility is not good.
				Not in line with the Korean context	6	It is unsatisfactory that the learning profile pursued by the IB and the student image to be raised do not fit the Korean context and are not centered on Korean even though it is conducted in Korea.
<b>RQ4</b>	Perceived Changes	Parents	Parents	Improving trust through student growth	12	Increased satisfaction with school and trust in school education programs.
				More participation in school	3	Parents' participation in school education increases

				Increasing interest in children's education	4	Interest in children's education and feedback on the curriculum are increasing.
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### Appendix 3-3. Codes of Student Interview Data by IB Programme

RQ	Code	PYP	MYP	DP	Total
RQ2	Satisfied with the IB curriculum	1	0	0	1
	Benefits of extracurricular activities	0	0	1	1
	Improve relationships with teachers	0	5	3	8
	Benefits of non-IB courses for teachers	0	0	1	1
	Pride in IB	4	3	0	7
	Improve your writing skills	0	3	5	8
	Benefits of deep exploration (thinking, focus)	4	3	5	12
	Cultivate persistence and patience	0	1	0	1
	Lower stress and happiness	0	3	3	6
	Increase logical thinking skills	3	0	5	8
	Growing Together (guiding slow learners)	1	4	3	8
	Assessments with no set answers, share your thoughts with each other	1	1	1	3
	Resolving conflict through dialog and collaboration	4	3	0	7
	Improve your speaking skills (confidence)	2	5	2	9
	Increase conversations with parents	3	2	1	6
	Feeling untutored	0	2	0	2
	Advantageous for advanced schooling	5	1	0	6
	Increase global citizenship	9	6	6	21
	Enjoy the class itself	2	3	1	6
	Self-reflection	0	2	5	7
	Better time management, more accountability	0	0	1	1
	Improve your English	1	0	2	3
	Improve your expression	4	0	0	4
	Help with more than just admissions	4	6	9	19
	Admissions advantages	2	0	4	6
	Fostering self-direction (self-paced learning)	26	8	8	42
	Build your research skills	0	1	2	3
	Increased access to specialized textbooks and lab equipment	0	0	1	1
	Foster professionalism and major fit	0	0	2	2
	Advantages over induction training	8	20	11	39
Boost your creativity	1	0	1	2	

	Better relationships with friends (collaboration, feedback)	6	3	6	15
	Relaxed classroom atmosphere	3	0	0	3
RQ3	Lack of opportunities to learn about non-IB topics	3	0	1	4
	Difficulties with IB Exploratory Topics	5	0	0	5
	Concerns about the proliferation of private education as IB spreads	0	0	4	4
	IB is an option for students with failing first-year GPAs	0	0	4	4
	Difficulty juggling IB with private school studies	2	0	0	2
	The difficulty of the IB content itself	0	0	3	3
	Complaints about textbook translations	0	0	1	1
	Challenges with the National Curriculum	1	2	2	5
	Writing difficulties	0	1	1	2
	Difficulty understanding terminology	2	0	0	2
	Complaints about speaking-oriented English classes	1	0	0	1
	Difficulties with moderated activities	12	5	1	18
	Conflict in moderated activities	4	3	1	8
	Pressure to present	1	0	0	1
	Segregation experience with non-IB students	0	0	2	2
	Supplement with tutoring	2	0	3	5
	I gave up IB at my upper secondary school	4	3	0	7
	Concerns about being at a disadvantage in advanced schooling (inquiry-based learning)	6	4	0	10
	Lack of electives	0	2	6	8
	Complaints about lecture-style classes still persist	0	1	0	1
	Complaints about consecutive assessments	0	11	0	11
	Doesn't help me improve my English much	0	0	3	3
	Heavy workload compared to traditional schools	0	6	4	10
	Admissions disadvantage	4	5	28	37
	Difficulty juggling admissions and IB	0	3	12	15
	Challenges with data collection	1	0	4	5
	Inability to objectify your own skills	1	0	1	2
	Difficulty finding direction on a topic	1	0	0	1
Feeling a lack of knowledge transfer	2	5	7	14	
Decreased creativity	0	1	0	1	
RQ5	Increased complaints about assessment weight or NEIS equivalent scores	0	4	0	4



	Differences in assessment methods	3	7	15	25
	Increase confidence in your assessments	0	4	0	4
	Lessons matched to assessments	0	2	0	2
	Concerns about unfairness in assessments	1	0	2	3
	Enjoy school	2	0	0	2
	I feel like I'm trying to fit my students into the IB Learner box.	1	4	0	5
	Concerned that IB education has not taken hold in South Korea	0	0	7	7
	Learn how to resolve conflict through dialog or collaboration	0	1	0	1
	Differences in teaching methods	0	3	0	3
<b>Total</b>		<b>154</b>	<b>162</b>	<b>203</b>	<b>519</b>

## Appendix 4-1. Teacher Survey Questionnaire

### IMPLEMENTATION OF IB PROGRAMMES IN SOUTH KOREA

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## IB Teacher Survey of Programme Implementation

This survey has been developed by the research team from the Department of Education at Yonsei University as part of a commissioned study by the IBO. The content of this survey pertains to the perceptions of teachers who have experienced IB education in South Korea. The purpose of this survey is to enhance the quality of IB education. Your responses will be kept strictly confidential in accordance with research ethics and will not be used for any purposes other than this research. The survey is expected to take approximately 10-15 minutes to complete.

If you have any questions about the survey, please contact the research team at the Department of Education, Yonsei University (leemoosung@yonsei.ac.kr).

Thank you for your participation despite your busy schedule.

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**Do you agree to participate in this survey?**

① Yes [ ]      ② No [ ]

The following are questions regarding your basic information. Please respond to the applicable sections.

Question	List
<b>1. School Name</b>	
<b>2. Gender</b>	① Male [ ]      ② Female [ ]
<b>3. Teaching Experience (as of June 2024):</b>	[__] Years
<b>4. Homeroom Teacher</b>	① Yes [ ]      ② No [ ]
<b>5. Main Subject(s)</b>	[_____]      Not Applicable [ ]
<b>6. Current Position</b>	① Teacher [ ]   ② Head Teacher/ IB Coordinator [ ] ③ Master Teacher [ ]
<b>7. Currently Teaching an IB Class</b>	① Yes [ ]      ② No [ ]

1. The following statements refer to "student competencies" IB programmes aim to enhance. Please indicate your level of agreement.

	IB programmes...	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	Increase students' participation in class						

b.	Develop students' creative thinking skills						
c.	Enhance students' analytical and critical thinking skills						
d.	Cultivate students' inquiry skills (data collection and analysis)						
e.	Improve students' problem-solving abilities (understanding and application of knowledge)						
f.	Strengthen students' self-expression abilities						
g.	Encourage students to take initiative in learning						
h.	Enable students to gain deeper understanding through self-directed inquiry and discussions						
i.	Enhance students' ability to connect learning with their real-life contexts						
j.	Improve students' English language skills						
k.	Foster students' self-management skills						

**2. The following are aspects referred to as "changes in the school's teaching and learning environment" through IB education. Please indicate your level of agreement.**

IB programmes...	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
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a.	Mitigate competition among students through absolute assessment (i.e., criteria-based assessment)						
b.	Promote collaboration among students						
c.	Enhance communication and understanding between teachers and students						
d.	Encourage teachers' commitment and care for students						
e.	Improve students' overall happiness and satisfaction with school life						
f.	Enhance teachers' professionalism or competence in curriculum and instruction						
g.	Enhance teachers' professionalism or competence in assessment						
h.	Expand teachers' autonomy in curriculum design and instruction						
i.	Expand teachers' autonomy in assessment						
j.	Ensure reliability and validity of assessments						
k.	Facilitate alignment curriculum with assessment						
l.	Focus on the implementation of curriculum and instruction aligned with the essence of the subject (discipline)						
m.	Activate formal or informal teacher learning communities						

n.	Improve lessons and assessments through consultations with colleague teachers						
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**3. Please indicate the extent to which you agree with the following statements about IB education.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	The educational goals and desired outcomes of the IB programme are similar to those of the national curriculum						
b.	The introduction of the IB programme increases students' (and parents') burden of private tutoring						
c.	The IB programme should be introduced in as many public schools as possible						
d.	The IB programme should only be implemented in schools that want to pursue it						
e.	The IB programme should eventually be replaced by a so-called KB (Korean Baccalaureate)						

**4. Please rate the IB professional development activities you participated in. If you have not participated in any of the activities listed below, please choose N/A.**

	<b>Statements</b>	<b>Not Useful At All</b>	<b>Not Useful</b>	<b>Average (So So)</b>	<b>Useful</b>	<b>Very Useful</b>	<b>N/A</b>
a.	Professional development provided by the IBO						
b.	IB-related professional development provided by the local education office						
c.	Professional learning communities (PLCs) related to IB among same-grade or same-subject teachers within the school						
d.	Meetings with IB teachers from other schools						
e.	International conferences hosted by the IBO						
f.	IB-related seminars/forums provided by domestic academic societies, local education offices, and/or related organizations						
g.	IBEC courses offered by some universities in South Korea						

**5. Please indicate the extent to which you agree with the following statements about the challenges related to IB education.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	The scope of IB courses/subjects is excessively broad						
b.	The level of IB courses/subjects is excessively high						
c.	The scope of IB assessments is excessively broad						
d.	The level of IB assessments is excessively high						
e.	As a teacher, my competence for IB assessments is not sufficient						
f.	The criteria in IB assessments are ambiguous						
g.	Dual assessments (midterms, finals, and/or college entrance exams, alongside IB assessments) are difficult to conduct						
h.	Collaborative assessments among multiple teachers take too much time						
i.	Qualitative assessments (providing meaningful feedback, not just scores) are difficult to conduct						
j.	There is a lack of an online information system in the school to manage teaching, learning, assessment, and student records.						
k.	The current Korean college entrance system disadvantages IB students						
l.	Basic (subject) knowledge is insufficiently delivered						
m.	Implementing IB (annual fees, professional development, etc.) is excessively costly for schools						
n.	Implementing IB in the Korean cultural context is challenging						
o.	Compatibility with the NEIS system is difficult (e.g., registering IB programmes in the NEIS system is problematic)						



p.	There is a lack of curriculum and assessment materials provided by the IB for classes						
q.	There are language barriers in textbooks, reference materials, and/or teacher training (e.g., poor translation, unavailable in Korean)						
r.	Sharing materials with outsiders (teachers from other schools, etc.) is difficult						
s.	Operating IB within the national curriculum framework is difficult.						
t.	Collaborating with teachers in the school who have different educational perspectives from the IB is difficult						

**6. On average, how often do you do the following in your school?**

	<b>Statements</b>	<b>Never</b>	<b>Once a year or less</b>	<b>2-4 times a year</b>	<b>5-10 times a year</b>	<b>1-3 times a month</b>	<b>Once a week or more</b>
a.	Teach jointly as a team in the same class						
b.	Observe other teachers' classes and provide feedback						
c.	Engage in joint activities across different classes and age groups.						
d.	Exchange teaching materials with colleagues						
e.	Engage in discussions about the learning development of specific students						
f.	Work with other teachers to ensure common standards for assessing student progress						
g.	Attend team conferences						
h.	Take part in collaborative professional learning						

**7. What are the major benefits from working as an IB teacher? Please rank below in the order of importance. 1 is the most beneficial feature and 5 is the least beneficial feature.**

	<b>Item</b>	<b>Rank</b>
a.	High quality professional development that encourages critical thinking, self-reflection and dedication to lifelong learning and continuous improvement	
b.	Innovative and diverse teaching materials, unit planners, teaching resources and assessment tools.	
c.	Global recognition as an IB teacher.	
d.	A pedagogy known to support students who are motivated to continue inquiry and lifelong learning beyond national curriculum.	
e.	Global networks with other IB educators and international school communities.	

**8. How strongly do you agree or disagree that you have autonomy over the following areas of your planning and teaching in this class?**

	<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Determining course content				
b.	Selecting teaching methods				
c.	Assessing students' learning				
d.	Disciplining students				
e.	Determining the amount of homework to be assigned				

**9. How often do you use the following methods of assessing student learning in the class?**

	<b>Statement</b>	<b>Never or almost never</b>	<b>Occasionally</b>	<b>Frequently</b>	<b>Always</b>
a.	I administer my own assessment <i.e. self-developed assessments>.				
b.	I provide written feedback on student work in addition to a <mark, i.e. numeric score or letter grade>				
c.	I encourage students to evaluate their own progress.				
d.	I observe students when working on particular tasks and provide immediate feedback.				

**10. Thinking about your job at this school, to what extent are the following sources of stress in your work?**

	<b>Statements</b>	<b>Not at all</b>	<b>To some extent</b>	<b>Quite a bit</b>	<b>A lot</b>
a.	Having too much lesson preparation				
b.	Having too many lessons to teach				
c.	Having too much marking to do				
d.	Having too much administrative work to do (e.g. filling out forms)				
e.	Having extra duties due to absent teachers				
f.	Being held responsible for students' achievement				
g.	Maintaining classroom discipline				
h.	Being intimidated or verbally abused by students				

I.	Keeping up with changing requirements from <local, municipality/regional, state, or national/federal> authorities				
j.	Addressing parent or guardian concerns				
k.	Modifying lessons for students with special needs				
l.	Grey areas in interpreting the IB curriculum (framework)				
m.	Disconnection or separation from local community				
n.	Conflict and/or tension with parents due to different perspectives of education				

**11. We would like to know how you generally feel about your job. How strongly do you agree or disagree with the following statements?**

	Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
a.	The advantages of being a teacher clearly outweigh the disadvantages.				
b.	If I could decide again, I would still choose to work as a teacher.				
c.	I would like to change to another school if that were possible.				
d.	I regret that I decided to become a teacher.				
e.	I enjoy working at this school.				
f.	I wonder whether it would have been better to choose another profession.				

g.	I would recommend this school as a good place to work.				
h.	I think that the teaching profession is valued in society.				
i.	I am satisfied with my performance in this school.				
j.	All in all, I am satisfied with my job.				

**12. How strongly do you agree or disagree with these statements, as applied to this school?**

	Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
a.	This school provides staff with opportunities to actively participate in school decisions.				
b.	This school provides parents or guardians with opportunities to actively participate in school decisions.				
c.	This school provides students with opportunities to actively participate in school decisions.				
d.	This school has a culture of shared responsibility for school issues.				
e.	There is a collaborative school culture which is characterised by mutual support.				
f.	The school staff share a common set of beliefs about teaching and learning.				
g.	The school staff enforces rules for student behaviour consistently throughout the school.				
h.	This school encourages staff to lead new initiatives.				

**13. Please indicate the extent to which you agree with the following statements.**

	Statements	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
a.	Our school members recognize the balanced growth and development of students as an important educational goal.					
b.	Our school members practice education aimed at the balanced growth and development of students.					

**14. Please indicate the extent to which you agree with the following statements.**

	Statements	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
a.	Our school's curriculum provides appropriate opportunities for students to make independent judgments and choices (e.g., class meetings, elective activities, subject choices, etc.)					
b.	Our school's classes help students develop the ability to set their own goals, make learning plans, monitor progress, and evaluate themselves					
c.	Our school uses assessment methods and tools that allow students to monitor and improve their learning process on their own (e.g., formative assessment, portfolios, self-assessment, peer assessment, checklists, etc.)					
d.	Our school provides individualized feedback based on assessment results, giving students the opportunity to monitor and improve their own learning					

**15. If you have any additional comments or suggestions as an IB teacher regarding the implementation of the IB programme, please feel free to share them.**

The survey is now complete.

Please review your responses to ensure that you have not missed any questions or provided any inaccurate answers.

Thank you for your participation in the survey.

## Appendix 4-2. DP Student Survey Questionnaire

### IMPLEMENTATION OF IB PROGRAMMES IN SOUTH KOREA



## IB DP Student Survey of Programme Implementation

This survey has been developed by the research team from the Department of Education at Yonsei University as part of a commissioned study by the IB headquarters. The content of this survey pertains to the perceptions of students who have experienced MYP education. The purpose of this survey is to collect data to enhance the quality of MYP education in South Korea. Your responses will be kept strictly confidential in accordance with research ethics and will not be used for any purposes other than this research.

The survey is expected to take approximately 10 minutes to complete. If you have any questions about the survey, please contact the research team at the Department of Education, Yonsei University (leemoosung@yonsei.ac.kr).

Thank you for your participation.

**Do you agree to participate in this survey?**

① Yes [ ]      ② No [ ]

**The following are questions regarding your basic information. Please respond to the applicable sections.**

Question	List
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<p><b>1. Which school do you currently attend?</b></p>	
<p><b>2. What is your gender?</b></p>	<p>① Male [ ]      ② Female [ ]</p>
<p><b>3. What year are you currently in?</b></p>	<p>① 1<sup>st</sup> year [ ]    ② 2<sup>nd</sup> year [ ]    ③ 3<sup>rd</sup> year [ ]</p>

**1. Please indicate the extent to which you agree with the statements on changes you may have experienced in yourself through IB education.**

<b>(Knowledgeable) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
<p>a.</p>	<p>Explore ideas and information from a range of different sources.</p>						
<p>b.</p>	<p>Explore ideas from a number of different perspectives and/or subject areas.</p>						
<p>c.</p>	<p>Appreciate the strengths and limitations of other peoples' ideas.</p>						
<p>d.</p>	<p>Change my mind on issues after considering new evidence.</p>						

e.	Apply ideas and concepts to understand how things work in new situations.						
f.	Analyze and present information and ideas found in different subject areas.						
g.	Build on others' ideas to form my own opinion.						
h.	Apply familiar ideas and concepts in new ways in order to extend my own opinion.						
<b>(Inquirers) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Become curious about the things I read, see and hear.						
b.	Find out if there are more complex reasons for what appears to be a simple idea or belief.						
c.	Know how to systematically research a problem or a question.						
d.	Evaluate and use feedback from a variety of people to improve my learning.						

e.	Use a range of research strategies to investigate a problem.						
f.	Know how to research a problem independently.						
g.	Enjoy learning for myself, not just because it's required.						
h.	Want to keep on learning new things throughout my life (e.g., outside of the required school timetable).						
<b>(Caring) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Empathize with the feelings and needs of others in my local community.						
b.	Respect the feelings and needs of others in my local community.						
c.	Commit time and energy to help those in need.						
d.	Show care and compassion for my peers.						
e.	Make a positive difference in other peoples' lives.						
f.	Empathize with the feelings and needs of people living in different communities and countries.						
<b>(Open-minded) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Critically examine my own cultural values and beliefs.						

b.	Critically explore the ways different individuals and cultures see the world.						
c.	Learn about the values and beliefs of different cultures.						
d.	Examine my own values and beliefs through learning how people from other cultures think and act.						
e.	Consciously seek more knowledge about different cultures.						
f.	Encourage others to learn about different countries and cultures.						

**2. The following are aspects referred to as “skills enhanced through IB education”. Please indicate the extent to which you agree.**

	<b>Statements</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	IB education has increased my class participation.						
b.	IB education has developed my open-minded and creative thinking skills.						
c.	IB education has developed my analytical and critical thinking skills.						
d.	IB education has developed my inquiry skills (data collection and analysis).						
e.	IB education has developed my problem-solving skills (understanding and application of knowledge).						
f.	IB education has developed my expressive communication skills.						
g.	IB education has enhanced my ability to take initiative in learning.						
h.	IB education has enabled me to achieve deeper learning through self-directed inquiry and discussions.						
i.	IB education has developed my ability to connect learning with my daily life.						
j.	IB education has improved my English language skills.						
k.	IB education has developed my self-reflection abilities.						
l.	IB education has fostered my creative thinking skills.						

**3. The following statements pertain to your classes and school life in the IB programme. Please indicate the extent to which you agree with each statement.**

	<b>Statements</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	IB education reduces competition among students by using an absolute assessment system.						
b.	IB education increases collaboration and communication among students.						
c.	IB education increases communication between teachers and students.						
d.	IB education makes school life happier.						
e.	IB classes are enjoyable.						
f.	The atmosphere in IB classes is relaxed.						
g.	I feel a lot of stress due to group activities in IB education (i.e., free-riding problem).						
h.	I feel there is a lack of knowledge delivery on topics outside the prescribed IB subjects.						

**4. The following statements pertain to assessment in IB education. Please indicate the extent to which you agree with each statement**

	<b>Statements</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	I am generally satisfied with the IB assessment methods.						
b.	IB assessments are objective.						
c.	IB assessments are reliable.						
d.	IB assessment results tend to be generous.						
e.	The scope of IB lessons is excessively large.						
f.	The scope of IB assessments is excessively large.						
g.	The level of IB assessments is excessively high.						
h.	The criteria for IB assessments are ambiguous.						
i.	It is difficult to compare abilities because IB assessments are based on absolute assessment (i.e., criteria-based assessment).						
j.	The study load is heavy because of midterms and finals alongside the IB programme.						

**5. Are you currently receiving private supplementary tutoring? If you answered "Yes," please start from question 6. If you answered "No," please start from question 7.**

- ① Yes [ ]      ② No [ ]

**6. If yes, for what purpose(s) are you receiving private supplementary tutoring? Please respond to this question only if you are currently receiving private education. Select all that apply.**

- ① Preparatory studies for the college entrance exam (subject-centered) [ ]  
 ② University admission consulting (for comprehensive student records) [ ]  
 ③ Specialized private supplementary tutoring for career paths such as arts, sports, or technical skills [ ]  
 ④ Private supplementary tutoring to develop skills such as writing and debating [ ]  
 ⑤ Private supplementary tutoring to supplement difficult school subjects [ ]  
 ⑥ Private supplementary tutoring for IB subjects [ ]  
 ⑦ Private supplementary tutoring for the IB Extended Essay [ ]  
 ⑧ Private supplementary tutoring for IB Theory of Knowledge (TOK) [ ]  
 ⑨ Other, please specify (\_\_\_\_\_)

**7. Please indicate the extent to which you agree with the following statements regarding tutoring. If you are not currently receiving private supplementary tutoring, please respond based on the situations of your peers.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	Private supplementary tutoring is necessary to keep up with IB education.						
b.	The introduction of IB education in Korea has increased the need for private supplementary tutoring.						

**8. Please indicate the extent to which you agree with the following statements regarding IB education and university entrance exams.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree



a.	There was hesitation in choosing an IB school due to uncertainties in the university admission process with IB education.						
b.	IB education is separate from the university entrance exams, so additional preparation for the exams is necessary.						
c.	IB education is advantageous in university admissions, such as comprehensive student record evaluations.						
d.	University admission through IB education is disadvantageous for students with high internal school grades.						
e.	IB education is disadvantageous because it does not prepare students for the national college entrance exam (CSAT).						

9. Below is a list of characteristics related to IB education. Please choose the three characteristics you perceive as the greatest 'advantages' to yourself as a student, and list them in order from 1st to 3rd. For example, "1" is the greatest advantage you think.

	Statements	Top 3 Advantages
a.	Increased participation and engagement in classes	
b.	Enhanced thinking skills	
c.	Improved self-directed learning skills	
d.	Enhanced global citizenship	

e.	Improved student-teacher relationships	
f.	Happier school life	
g.	Trust in IB assessment methods	
h.	Advantage in Korean university admission with IB	

**10. Below is a list of the characteristics of IB education. Please choose the three characteristics you perceive as the greatest 'challenges' to yourself as a student, and list them in order from 1st to 3rd. For example, "1" is the greatest disadvantage you think.**

	Statements	Top 3 Challenges
a.	The scope of subjects covered in my IB education is too broad.	
b.	The amount of knowledge covered in IB classes is too little.	
c.	The assessments conducted in IB education are less trustworthy.	
d.	The difficulty level of the content covered in IB education is high	
e.	IB education is disadvantageous for Korean university admission.	
f.	There are too many assignments in my IB classes.	
g.	The stress from group activities in IB education is high.	
h.	It is difficult to pursue IB education if one does not have a personality suited for it.	

**11. What is your academic performance level in your class?**

- ① I currently fall in the top 25% in my class. [ ]
- ② I currently fall in the upper middle 25% in my class. [ ]
- ③ I currently fall in the lower middle 25% in my class. [ ]
- ④ I currently fall in the bottom 25% in my class. [ ]

**12. If you have any additional comments or thoughts about your experiences with IB education that you would like to share, please feel free to write them below.**

The survey is now complete.  
Please review your responses to ensure that you have not missed any questions or provided any inaccurate answers.  
Thank you for your participation in the survey.

## IMPLEMENTATION OF IB PROGRAMMES IN SOUTH KOREA

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### IB MYP Student Survey of Programme Implementation

This survey has been developed by the research team from the Department of Education at Yonsei University as part of a commissioned study by the IB headquarters. The content of this survey pertains to the perceptions of students who have experienced MYP education. The purpose of this survey is to collect data to enhance the quality of MYP education in South Korea. Your responses will be kept strictly confidential in accordance with research ethics and will not be used for any purposes other than this research.

The survey is expected to take approximately 10 minutes to complete. If you have any questions about the survey, please contact the research team at the Department of Education, Yonsei University (leemoosung@yonsei.ac.kr).

Thank you for your participation.

**Do you agree to participate in this survey?**

- ① Yes [ ]      ② No [ ]

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**The following are questions regarding your basic information. Please respond to the applicable sections.**

Question	List
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<b>1. Which school do you currently attend?</b>	
<b>2. What is your gender?</b>	① Male [ ]      ② Female [ ]
<b>3. What year are you currently in?</b>	① 1 <sup>st</sup> year [ ]    ② 2 <sup>nd</sup> year [ ]    ③ 3 <sup>rd</sup> year [ ]

**1. Please indicate the extent to which you agree with the statements on changes you may have experienced in yourself through IB education.**

<b>(Knowledgeable) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Explore ideas and information from a range of different sources.						
b.	Explore ideas from a number of different perspectives and/or subject areas.						
c.	Appreciate the strengths and limitations of other peoples' ideas.						
d.	Change my mind on issues after considering new evidence.						

e.	Apply ideas and concepts to understand how things work in new situations.						
f.	Analyze and present information and ideas found in different subject areas.						
g.	Build on others' ideas to form my own opinion.						
h.	Apply familiar ideas and concepts in new ways in order to extend my own opinion.						
<b>(Inquirers) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Become curious about the things I read, see and hear.						
b.	Find out if there are more complex reasons for what appears to be a simple idea or belief.						
c.	Know how to systematically research a problem or a question.						
d.	Evaluate and use feedback from a variety of people to improve my learning.						

e.	Use a range of research strategies to investigate a problem.						
f.	Know how to research a problem independently.						
g.	Enjoy learning for myself, not just because it's required.						
h.	Want to keep on learning new things throughout my life (e.g., outside of the required school timetable).						
<b>(Caring) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Empathize with the feelings and needs of others in my local community.						
b.	Respect the feelings and needs of others in my local community.						
c.	Commit time and energy to help those in need.						
d.	Show care and compassion for my peers.						
e.	Make a positive difference in other peoples' lives.						
f.	Empathize with the feelings and needs of people living in different communities and countries.						
<b>(Open-minded) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>

a.	Critically examine my own cultural values and beliefs.						
b.	Critically explore the ways different individuals and cultures see the world.						
c.	Learn about the values and beliefs of different cultures.						
d.	Examine my own values and beliefs through learning how people from other cultures think and act.						
e.	Consciously seek more knowledge about different cultures.						
f.	Encourage others to learn about different countries and cultures.						

**2. The following are aspects referred to as “skills enhanced through IB education”. Please indicate the extent to which you agree.**

	<b>Statements</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	IB education has increased my class participation.						
b.	IB education has developed my open-minded and creative thinking skills.						
c.	IB education has developed my analytical and critical thinking skills.						
d.	IB education has developed my inquiry skills (data collection and analysis).						
e.	IB education has developed my problem-solving skills (understanding and application of knowledge).						
f.	IB education has developed my expressive communication skills.						



g.	IB education has enhanced my ability to take initiative in learning.						
h.	IB education has enabled me to achieve deeper learning through self-directed inquiry and discussions.						
i.	IB education has developed my ability to connect learning with my daily life.						
j.	IB education has improved my English language skills.						
k.	IB education has developed my self-reflection abilities.						
l.	IB education has fostered my creative thinking skills.						

**3. The following statements pertain to your classes and school life in the IB programme. Please indicate the extent to which you agree with each statement.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	IB education reduces competition among students by using an absolute assessment system.						
b.	IB education increases collaboration and communication among students.						
c.	IB education increases communication between teachers and students.						
d.	IB education makes school life happier.						

e.	IB classes are enjoyable.						
f.	The atmosphere in IB classes is relaxed.						
g.	I feel a lot of stress due to group activities in IB education (i.e., free-riding problem).						
h.	I feel there is a lack of knowledge delivery on topics outside the prescribed IB subjects.						

**4. The following statements pertain to assessment in IB education. Please indicate the extent to which you agree with each statement**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	I am generally satisfied with the IB assessment methods.						
b.	IB assessments are objective.						
c.	IB assessments are reliable.						
d.	IB assessment results tend to be generous.						
e.	The scope of IB lessons is excessively large.						
f.	The scope of IB assessments is excessively large.						

g.	The level of IB assessments is excessively high.						
h.	The criteria for IB assessments are ambiguous.						
i.	It is difficult to compare abilities because IB assessments are based on absolute assessment (i.e., criteria-based assessment).						
j.	The study load is heavy because of midterms and finals alongside the IB programme.						

**5. Are you currently receiving private supplementary tutoring? If you answered "Yes," please start from question 6. If you answered "No," please start from question 7.**

- ① Yes [ ]      ② No [ ]

**6. If yes, for what purpose(s) are you receiving private supplementary tutoring? Please respond to this question only if you are currently receiving private education. Select all that apply.**

- ① Preparatory studies for the college entrance exam (CSAT) [ ]
- ② Private supplementary tutoring for extracurricular activities for university admissions (i.e., comprehensive student records) [ ]
- ③ Specialized private supplementary tutoring for career paths such as arts, sports, or technical skills [ ]
- ④ Private supplementary tutoring to develop skills such as writing and debating [ ]
- ⑤ Private supplementary tutoring to supplement difficult school subjects [ ]
- ⑥ Private supplementary tutoring for IB subjects [ ]
- ⑦ Other, please specify (\_\_\_\_\_)

**7. Please indicate the extent to which you agree with the following statements. If you are not currently receiving private supplementary tutoring, please respond based on the situations of your peers.**

Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

a.	Private supplementary tutoring is necessary to keep up with IB education.						
b.	The introduction of IB education in Korea has increased the need for private supplementary tutoring.						

**8. Please tell us how much you agree with the following statements about IB education and moving on to higher grades.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	After graduation, I would like to continue choosing IB education in middle school.						

**9. Below is a list of characteristics related to IB education. Please choose the three characteristics you perceive as the greatest 'advantages' to yourself as a student, and list them in order from 1st to 3rd. For example, "1" is the greatest advantage you think.**

	Statements	Rank
a.	Increased participation and engagement in classes	
b.	Enhanced thinking skills and language abilities	
c.	Improved self-directed learning skills	
d.	Enhanced global citizenship	
e.	Improved relationships with students and teachers	
f.	Happier school life	
g.	Trust in IB assessment methods	

h.	Advantage in Korean university admissions with IB	
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**10. Below is a list of the characteristics of IB education. Please choose the three characteristics you perceive as the greatest 'challenges' to yourself as a student, and list them in order from 1st to 3rd. For example, "1" is the greatest disadvantage you think.**

	Statements	Top 3 Challenges
a.	The scope of subjects covered in my IB school is too broad.	
b.	The amount of knowledge covered in IB classes is too little.	
c.	The assessments conducted in IB education are less trustworthy.	
d.	The difficulty level of the content covered in IB education is high.	
e.	IB education is disadvantageous for Korean university admissions.	
f.	There are too many assignments in my IB classes.	
g.	The stress from group activities in IB education is high.	
h.	It is difficult to pursue IB education if one does not have a personality suited for it.	

**11. What is your academic performance level in your class?**

- ① I currently fall in the top 25% in my class. [ ]
- ② I currently fall in the upper middle 25% in my class. [ ]
- ③ I currently fall in the lower middle 25% in my class. [ ]
- ④ I currently fall in the bottom 25% in my class. [ ]

**12. If you have any additional comments or thoughts about your experiences with IB education that you would like to share, please feel free to write them below.**

The survey is now complete.

Please review your responses to ensure that you have not missed any questions or provided any inaccurate answers.

Thank you for your participation in the survey.

**IMPLEMENTATION OF IB PROGRAMMES IN SOUTH KOREA**

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**IB PYP Student Survey of Programme Implementation**

(For 5th & 6th Graders)

This survey has been developed by the research team from the Department of Education at Yonsei University as part of a commissioned study by the IB headquarters. The content of this survey pertains to the perceptions of students who have experienced MYP education. The purpose of this survey is to collect data to enhance the quality of MYP education in South Korea. Your responses will be kept strictly confidential in accordance with research ethics and will not be used for any purposes other than this research.

The survey is expected to take approximately 10 minutes to complete. If you have any questions about the survey, please contact the research team at the Department of Education, Yonsei University (leemoosung@yonsei.ac.kr).

Thank you for your participation.

**Do you agree to participate in this survey?**

- ① Yes [ ]      ② No [ ]

**The following are questions regarding your basic information. Please respond to the applicable sections.**

Question	List
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<p><b>1. Which school do you currently attend?</b></p>	
<p><b>2. What is your gender?</b></p>	<p>① Male [ ]      ② Female [ ]</p>
<p><b>3. What year are you currently in?</b></p>	<p>① 5<sup>th</sup> year [ ]      ② 6<sup>th</sup> year [ ]</p>

**1. Please indicate the extent to which you agree with the changes you may have experienced in yourself through IB education.**

<p><b>(Knowledgeable)</b> The IB programme has helped me to:</p>		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	Explore ideas and information from a range of different sources.						
b.	Explore ideas from a number of different perspectives and/or subject areas.						
c.	Appreciate the strengths and limitations of other peoples' ideas.						
d.	Change my mind about issues after considering new evidence.						

e.	Apply ideas and concepts to understand how things work in new situations.						
f.	Analyze and present information and ideas found in different subject areas.						
g.	Build on others' ideas to form my own opinion.						
h.	Apply familiar ideas and concepts in new ways in order to extend my own opinion.						
<b>(Inquirers) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Become curious about the things I read, see and hear.						
b.	Find out if there are more complex reasons for what appears to be a simple idea or belief.						
c.	Know how to systematically research a problem or a question.						
d.	Evaluate and use feedback from a variety of people to improve my learning.						
e.	Use a range of (research) strategies to investigate a problem.						



f.	Know how to research a problem independently.						
g.	Enjoy learning for myself, not just because it's required.						
h.	Want to keep on learning new things throughout my life (e.g., outside of the classroom lessons).						
<b>(Caring) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Empathize with the feelings and needs of others in my local community.						
b.	Respect the feelings and needs of others in my local community.						
c.	Commit time and energy to help those in need.						
d.	Show care and compassion for my peers.						
e.	Make a positive difference in other peoples' lives.						
f.	Empathize with the feelings and needs of people living in different communities and countries.						
<b>(Open-minded) The IB programme has helped me to:</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	Critically examine my own cultural values and beliefs.						

b.	Critically explore the ways different individuals and cultures see the world.						
c.	Learn about the values and beliefs of different cultures.						
d.	Examine my own values and beliefs through learning how people from other cultures think and act.						
e.	Consciously seek more knowledge about different cultures.						
f.	Encourage others to learn about different countries and cultures.						

**2. The following are aspects referred to as skills enhanced through IB education. Please indicate the extent to which you agree.**

	<b>Statements</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	IB education has increased my class participation.						
b.	IB education has developed my open-minded and creative thinking skills.						
c.	IB education has developed my analytical and critical thinking skills.						
d.	IB education has developed my inquiry skills (data collection and analysis).						
e.	IB education has developed my problem-solving skills (understanding and application of knowledge).						
f.	IB education has developed my expressive communication skills.						

g.	IB education has enhanced my ability to take initiative in learning.						
h.	IB education has enabled me to achieve deeper learning through self-directed inquiry and discussions.						
i.	IB education has developed my ability to connect learning with my daily life.						
j.	IB education has improved my English language skills.						
k.	IB education has developed my self-reflection abilities.						
l.	IB education has fostered my creative thinking skills.						

**3. The following statements pertain to your classes and school life in the IB programme. Please indicate the extent to which you agree with each statement.**

	<b>Statements</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a.	IB education reduces competition among students by using an absolute assessment system.						
b.	IB education increases collaboration and communication among students.						
c.	IB education increases communication between teachers and students.						
d.	IB education makes school life happier.						
e.	IB classes are enjoyable.						
f.	The atmosphere in IB classes is relaxed.						
g.	I feel a lot of stress due to group activities in IB education (i.e., free-riding problem).						
h.	I feel there is a lack of knowledge delivery on topics outside the prescribed IB subjects.						

**4. The following statements pertain to the assessment in IB education. Please indicate the extent to which you agree with each statement.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	I am generally satisfied with the IB assessment methods.						
b.	IB assessments are objective.						
c.	IB assessments are reliable.						
d.	IB assessment results tend to be generous.						
e.	The scope of IB lessons is excessively large.						
f.	The scope of IB assessments is excessively large.						
g.	The level of IB assessments is excessively high.						
h.	The criteria for IB assessments are ambiguous.						
i.	It is difficult to compare abilities because IB assessments are based on absolute assessment (i.e., criteria-based assessment).						

**5. Are you currently receiving private supplementary tutoring? If you answered "Yes," please start from question 6. If you answered "No," please start from question 7.**

① Yes [ ]      ② No [ ]

**6. If yes, for what purpose(s) are you receiving private supplementary tutoring? Please respond to this question only if you are currently receiving private education. Select all that apply.**

- ① Subject-centered preparatory studies [   ]
- ② Private supplementary tutoring for arts, music, and physical education [   ]
- ③ Private supplementary tutoring for specific skills or certifications [   ]
- ④ Private supplementary tutoring to develop skills such as writing and debating [   ]
- ⑤ Private supplementary tutoring to supplement difficult school subjects [   ]
- ⑥ Other(Please write in detail \_\_\_\_\_ )

**7. Please indicate the extent to which you agree with the following statements. If you are not currently receiving private supplementary tutoring, please respond based on the situations of your peers.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	Private supplementary tutoring is necessary to keep up with IB education.						
b.	The introduction of IB education in Korea has increased the need for private supplementary tutoring.						

**8. Please tell us how much you agree with the following statements about IB education and moving on to higher grades.**

	Statements	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
a.	After graduation, I would like to continue choosing IB education in middle school.						

9. Below is a list of characteristics related to IB education. Please choose the three characteristics you perceive as the greatest 'advantages' to yourself as a student, and list them in order from 1st to 3rd. For example, "1" is the greatest advantage you think.

	Statements	Rank
a.	Increased participation and engagement in classes	
b.	Enhanced thinking skills and language abilities	
c.	Improved self-directed learning skills	
d.	Enhanced global citizenship	
e.	Improved relationships with students and teachers	
f.	Happier school life	
g.	Trust in IB assessment methods	
h.	Advantage in Korean university admissions with IB	

10. Below is a list of the characteristics of IB education. Please choose the three characteristics you perceive as the greatest 'challenges' to yourself as a student, and list them in order from 1st to 3rd. For example, "1" is the greatest disadvantage you think.

	Statements	Top 3 Challenges
a.	The scope of subjects covered in my IB school are too broad.	
b.	The amount of knowledge covered in my IB classes are too little.	
c.	The assessments conducted in IB education are less trustworthy.	
d.	The difficulty level of the content covered in IB education is high.	
e.	IB education is disadvantageous for Korean university admissions.	
f.	There are too many assignments in my IB classes.	

g.	The stress from group activities in IB education is high.	
h.	It is difficult to pursue IB education if one does not have a personality suited for it.	

**11. What is your academic performance level in your class?**

- ① I currently fall in the top 25% in my class. [ ]
- ② I currently fall in the upper middle 25% in my class. [ ]
- ③ I currently fall in the lower middle 25% in my class. [ ]
- ④ I currently fall in the bottom 25% in my class. [ ]

**12. If you have any additional comments or thoughts about your experiences with IB education that you would like to share, please feel free to write them below.**

The survey is now complete.

Please review your responses to ensure that you have not missed any questions or provided any inaccurate answers.

Thank you for your participation in the survey.



**Appendix 4-5. Response Rates of the Two Surveys**

Schools	Student Response Rate	No. of Respondents	Total No. of Students	Teacher Response Rate	No. of Respondents	Total No. of Teachers
D1	61.8%	42	68	100.0%	29	29
D2	60.0%	315	525	62.8%	27	43
D3	80.4%	152	189	18.8%	6	32
D4	72.4%	42	58	47.6%	10	21
D5	73.5%	86	117	63.0%	17	27
D6	70.6%	77	109	33.3%	8	24
D7	69.8%	125	179	61.5%	24	39
D8	95.6%	677	708	51.0%	26	51
D9	79.2%	95	120	66.7%	16	24
D10	94.6%	333	352	76.0%	19	25
D11	54.3%	19	35	76.0%	19	25
D12	35.2%	279	793	71.2%	37	52
D13	21.6%	59	273	57.7%	15	26
D14	55.3%	21	38	52.9%	9	17
J1	55.6%	10	18	100.0%	8	8
J2	54.2%	116	214	40.7%	11	27
J3	71.7%	320	446	72.2%	26	36
J4	75.9%	107	141	50.0%	13	26
<b>Total</b>	<b>65.6%</b>	<b>2,875</b>	<b>4383</b>	<b>60.2%</b>	<b>320</b>	<b>532</b>

## Appendix 4-6. Chi-Square Tests of Benefits of IB Programme Implementation

### Benefits of Professional Development

Category	Subcategory	1	2	3	4	5	Total	$\chi^2$
Programmes	PYP	53	31	12	2	2	100	3.46
	MYP	71	33	14	3	1	122	
	DP	34	18	7	0	2	61	
Leadership Positions	Regular Teachers	111	52	18	4	2	187	5.40
	Teachers in Leadership Positions	47	30	15	1	3	96	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. Also, 1 indicates the most important benefit, 5: the least important benefit. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Benefits of Access to Innovative and Diverse Educational Tools

Category	Subcategory	1	2	3	4	5	Total	$\chi^2$
Programmes	PYP	20	46	24	8	2	100	3.46
	MYP	24	54	33	9	2	122	
	DP	12	20	19	5	5	61	
Leadership Positions	Regular Teachers	36	75	52	17	7	187	5.40
	Teachers in Leadership Positions	20	45	24	5	2	96	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. Also, 1 indicates the most important benefit, 5: the least important benefit. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Benefits of International Recognition

Category	Subcategory	1	2	3	4	5	Total	$\chi^2$
Programmes	PYP	6	2	20	41	31	100	12.06
	MYP	5	10	20	34	53	122	
	DP	3	4	7	26	21	61	
Leadership Positions	Regular Teachers	9	13	33	62	70	187	3.03
	Teachers in Leadership Positions	5	3	14	39	35	96	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. Also, 1 indicates the most important benefit, 5: the least important benefit. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Benefits of Pedagogical Practice Beyond National Curriculum

Category	Subcategory	1	2	3	4	5	Total	$\chi^2$
Programmes	PYP	18	19	37	21	5	100	5.64
	MYP	21	21	48	25	7	122	
	DP	11	16	26	6	2	61	
Positions	Regular teachers	27	41	74	38	7	187	7.29
	Teachers in Leadership positions	23	15	37	14	7	96	

Note. 1: the most important benefit, 5: the least important benefit. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Benefits of International Educational Network

Category	Subcategory	1	2	3	4	5	Total	$\chi^2$
Programmes	PYP	3	2	7	28	60	100	7.97
	MYP	1	4	7	51	59	122	
	DP	1	3	2	24	31	61	
Leadership Positions	Regular Teachers	4	6	10	66	101	187	0.81
	Teachers in Leadership Positions	1	3	6	37	49	96	

Note. 1 indicates the most important benefit, 5: the least important benefit. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Appendix 4-7. Chi-Square Tests of Usefulness of Professional Development

### IB Teacher Training

Category	Sub category	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	Neutral (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	10	2	3	10	30	53	108	6.81
	MYP	13	3	2	12	46	48	124	
	DP	6	1	4	7	19	25	62	
Leadership Positions	Regular Teachers	25	5	7	23	64	70	194	15.13*
	Teachers in Leadership Positions	4	1	2	6	31	56	100	

Note. \*p<.05, \*\*p<.01, \*\*\*p<.001,

### From Local Education Office

Category	Sub category	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	Neutral (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	8	2	3	18	37	40	108	8.81
	MYP	11	1	3	29	43	37	124	
	DP	7	0	1	6	27	21	62	
Leadership Positions	Regular Teachers	20	2	6	38	70	58	194	5.41
	Teachers in Leadership Positions	6	1	1	15	37	40	100	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. \*p<.05, \*\*p<.01, \*\*\*p<.001

### School-Based PLC

Category	Sub category	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	Neutral (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	5	0	0	3	21	79	108	21.43*
	MYP	5	2	1	15	30	71	124	
	DP	7	0	1	4	19	31	62	
Leadership Positions	Regular Teachers	13	1	2	12	52	114	194	6.25

	Teachers in Leadership Positions	4	1	0	10	18	67	100	
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Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. \*p<.05, \*\*p<.01, \*\*\*p<.001

### Training at Other Schools

Category	Sub category	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	Neutral (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	6	3	4	10	31	54	108	30.34 **
	MYP	14	3	1	28	38	40	124	
	DP	13	0	0	5	24	20	62	
Leadership Positions	Regular Teachers	27	5	3	27	65	67	194	8.04
	Teachers in Leadership Positions	6	1	2	16	28	47	100	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. \*p<.05, \*\*p<.01, \*\*\*p<.001

### International Conferences

Category	Sub category	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	Neutral (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	40	4	3	10	15	36	108	9.92
	MYP	42	4	7	19	28	24	124	
	DP	22	2	2	8	12	16	62	
Positions	Regular teachers	79	8	8	23	31	45	194	9.55
	Teachers in Leadership positions	25	2	4	14	24	31	100	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. \*p<.05, \*\*p<.01, \*\*\*p<.001

## Seminars

Category	Sub category	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	So So (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	32	4	5	11	25	31	108	4.62
	MYP	33	3	4	22	33	29	124	
	DP	18	1	2	10	16	15	62	
Leadership Positions	Regular Teachers	60	4	7	32	45	46	194	5.38
	Teachers in Leadership Positions	23	4	4	11	29	29	100	

Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. \*p<.05, \*\*p<.01, \*\*\*p<.001

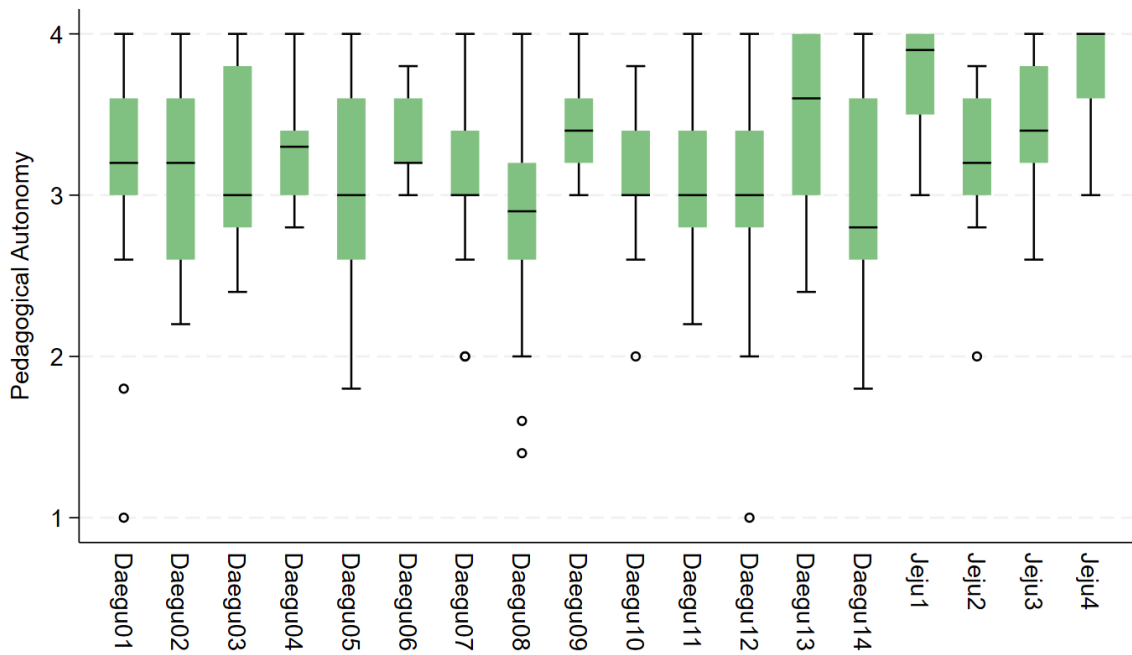
## IBEC

Category	Subcategory	N/A (0)	Not Helpful At all (1)	Not Helpful (2)	So So (3)	Helpful (4)	Very Helpful (5)	Total	$\chi^2$
Programmes	PYP	45	4	4	15	21	19	108	13.05
	MYP	55	4	4	29	25	7	124	
	DP	33	2	2	8	11	6	62	
Leadership Positions	Regular Teachers	86	5	7	37	39	20	194	2.26
	Teachers in Leadership Positions	47	5	3	15	18	12	100	

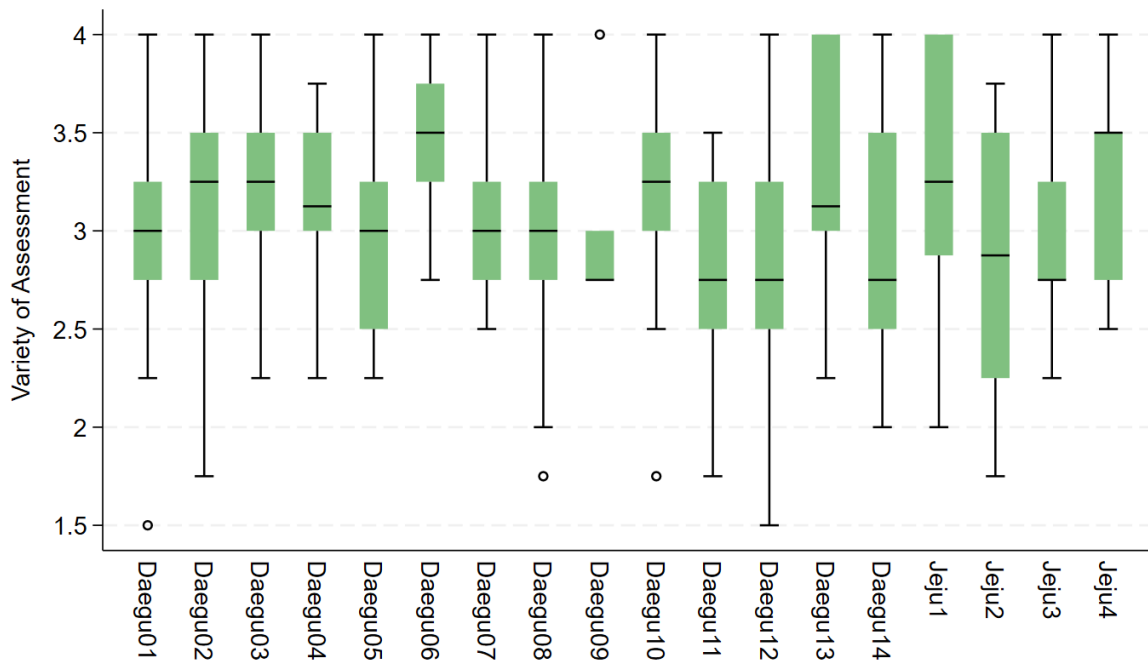
Note. We note that there were a few cells where the frequency is 0. We acknowledge that this can lead to issues such as reduced validity, which requires additional adjustments such as Fisher's Exact test. However, since the purpose of chi-square analysis here was supplementary information, we present the chi-square test result without adjustments. \*p<.05, \*\*p<.01, \*\*\*p<.001

## Appendix 4-8. Box Plot by Individual School – IB Teachers

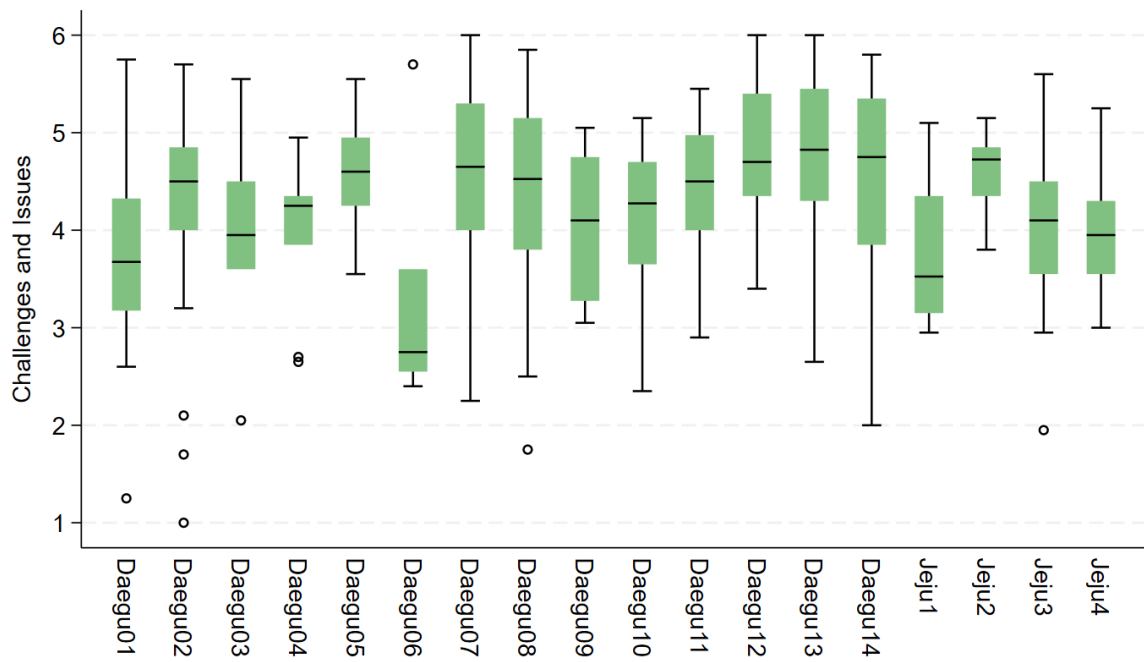
### Pedagogical Autonomy



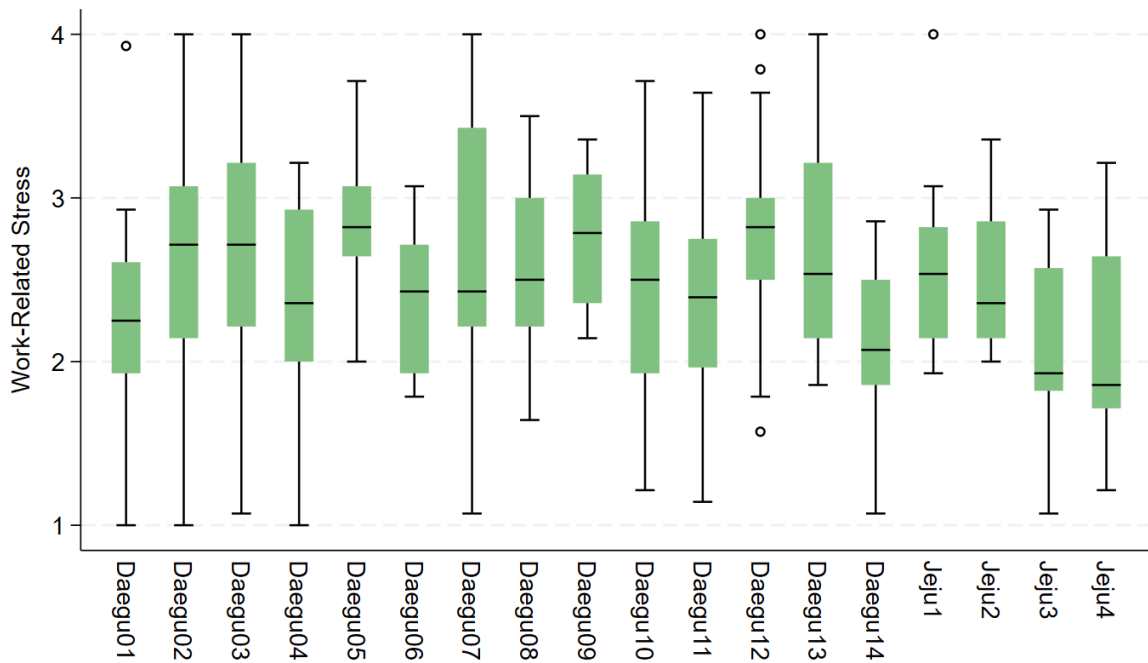
### Variety of Assessment



### Challenges and Issues in IB Programme Implementation

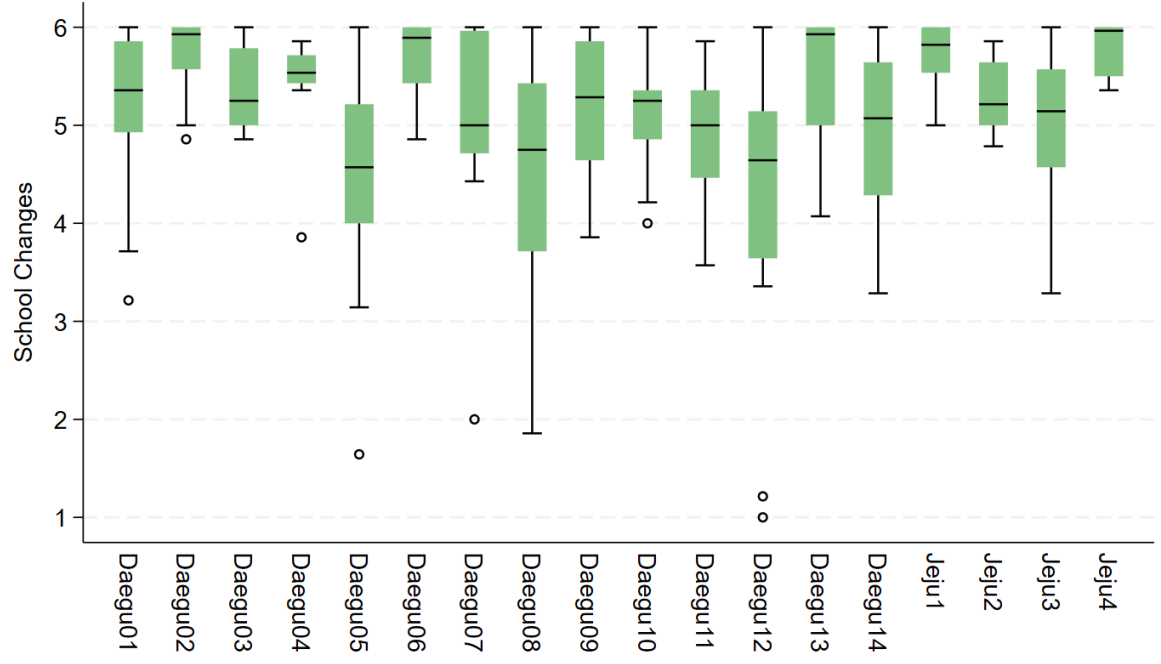


### Work-Related Stress

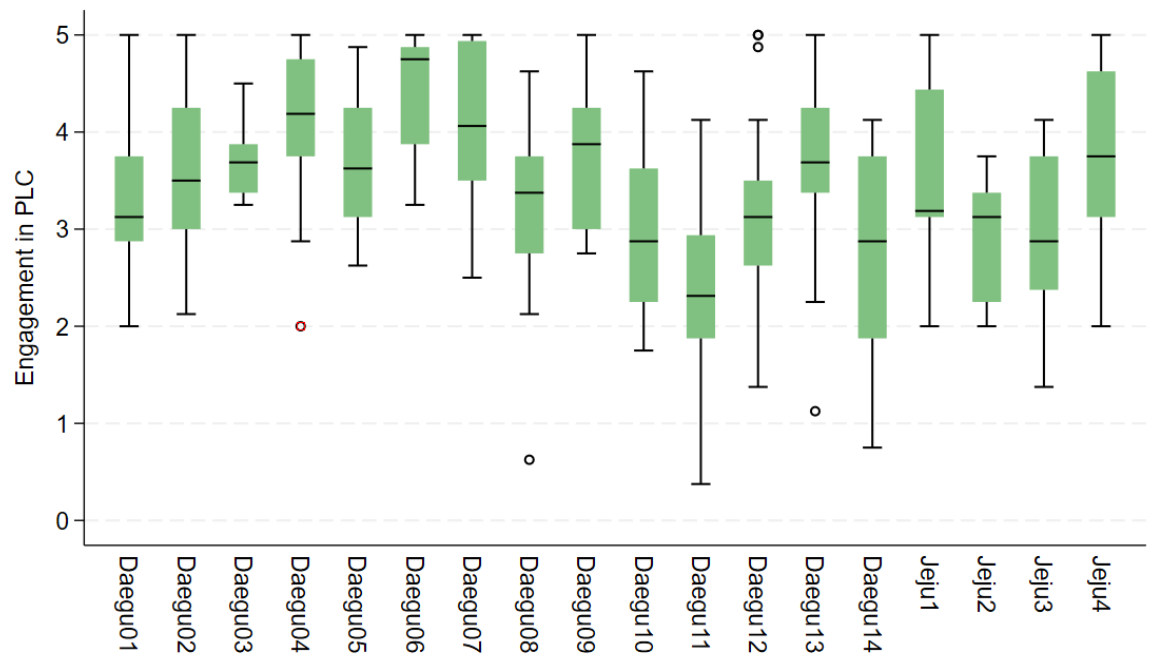


### School Changes by IB Programme Implementation

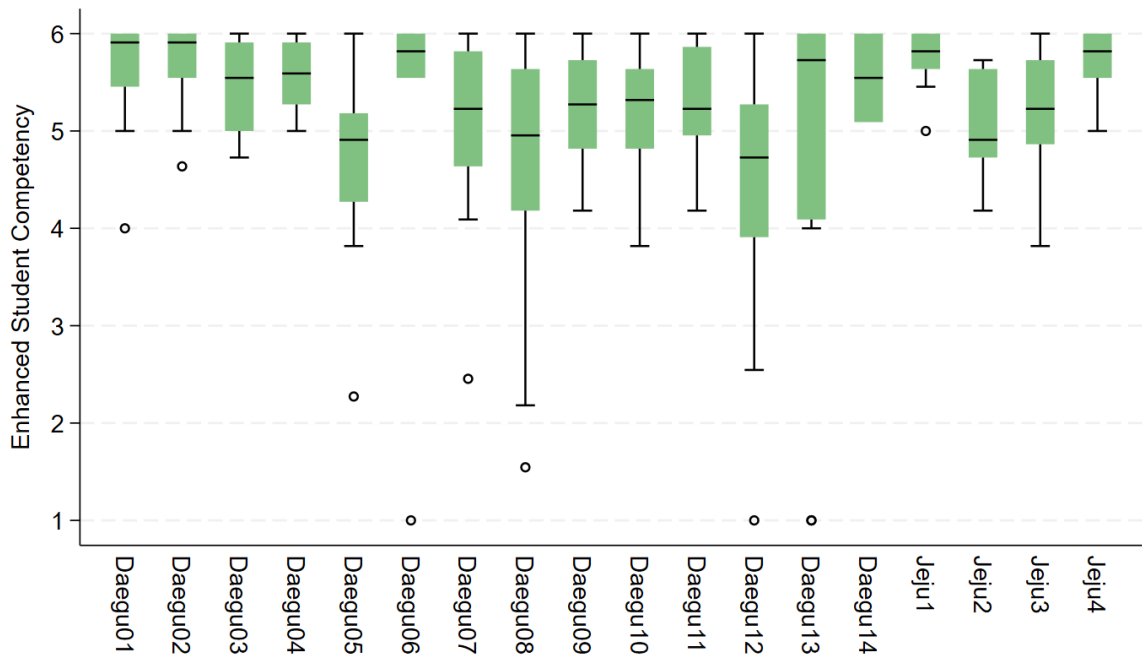




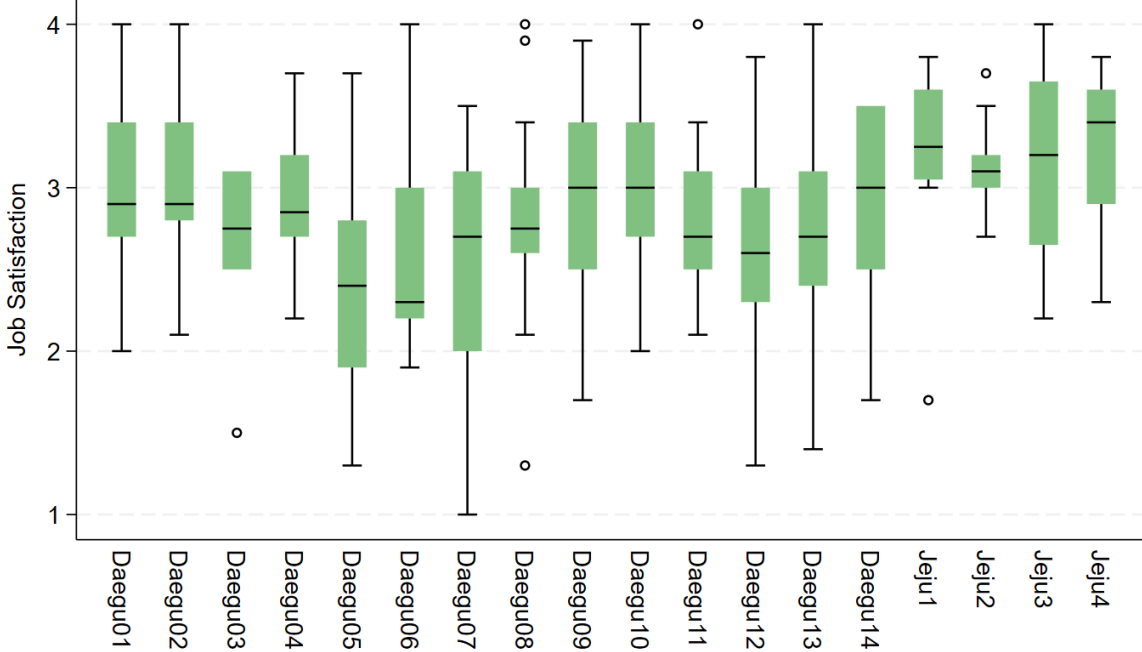
Engagement in PLC



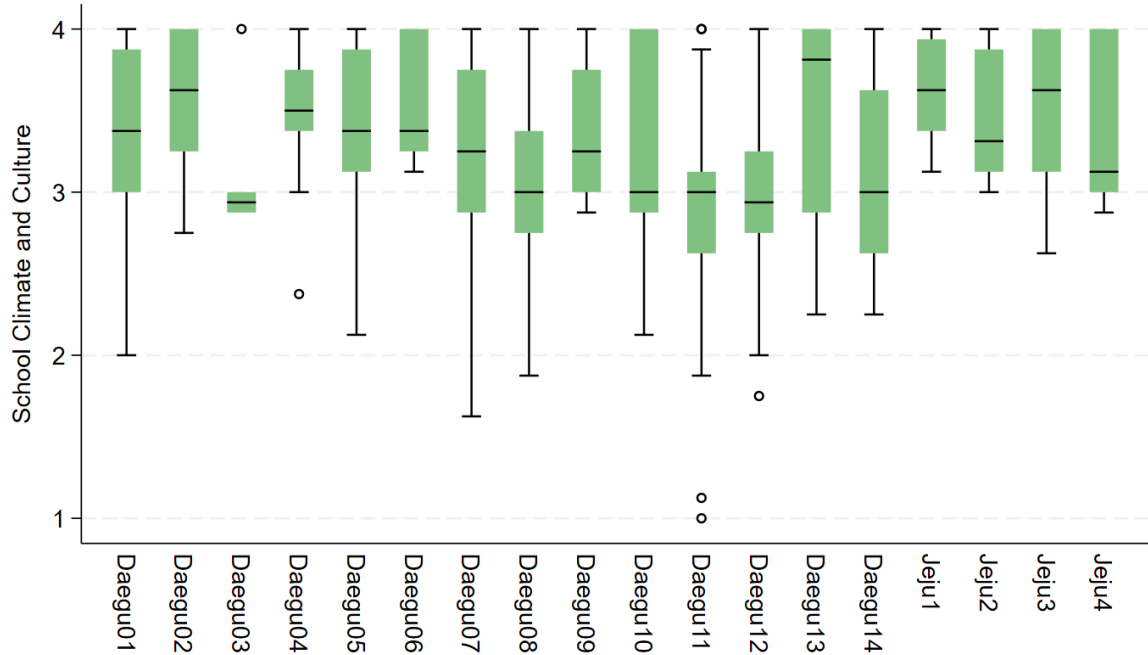
### Enhanced Student Competencies



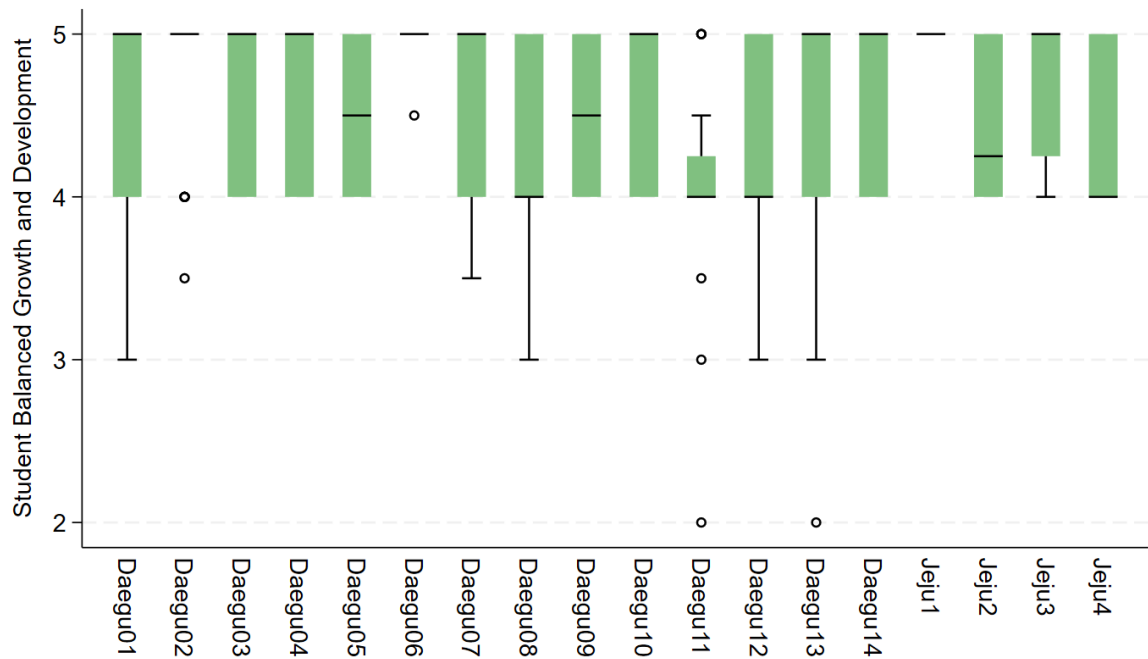
### Job Satisfaction



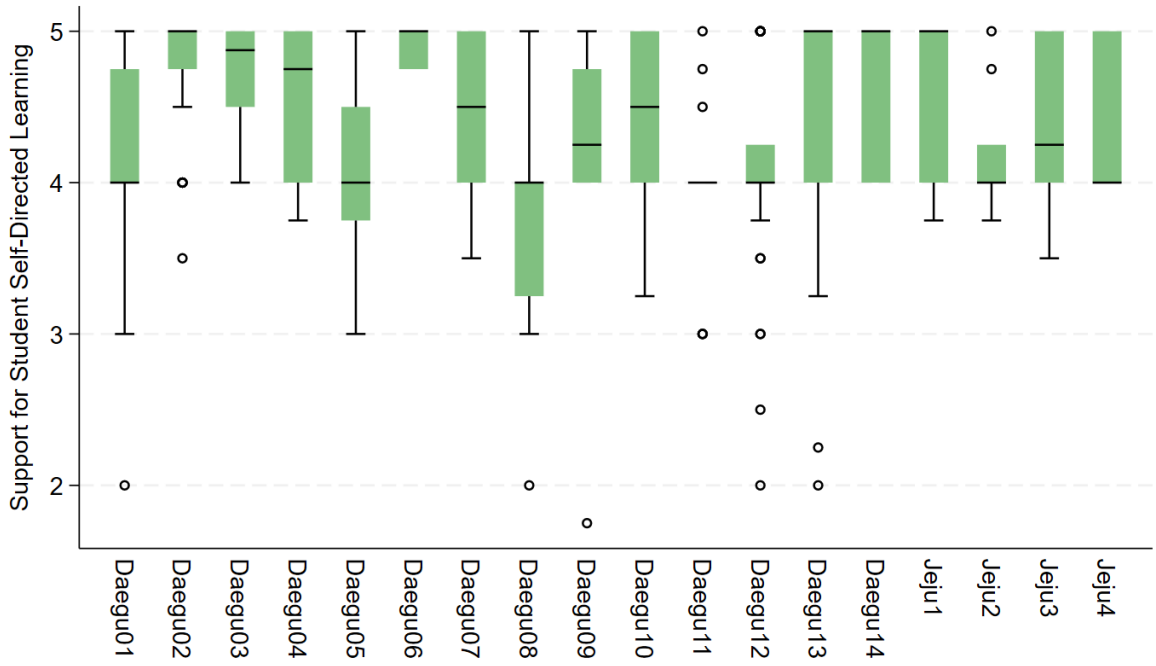
### School Climate and Culture



### Focusing on Student Balanced Growth and Development



### Support for Student Self-Directed Learning



#### Appendix 4-9. Reliability of Measured Areas with Cronbach's alpha

Areas	IB teachers		All teachers	
	Cronbach's alpha	N	Cronbach's alpha	N
Pedagogical Autonomy	0.8121	283	0.83	342
Variety of Assessment	0.7166	283	0.75	342
Challenges and Issues	0.9259	290	0.93	353
Work-Related Stress	0.8925	282	0.89	340
Job Satisfaction	0.8838	282	0.88	340
School Climate and Culture	0.9187	281	0.92	339
Perceived School Changes	0.9546	297	0.96	366
Engagement in PLC	0.7989	287	0.86	346
Enhanced Student Competencies	0.9647	302	0.96	372
Focusing on Student Balanced Growth and Development	0.9279	280	0.94	338
Support for Student Self-Directed Learning	0.9141	278	0.92	336

Note. All teachers included IB teachers and other teachers not involved in IB programmes in the sampled IB schools.

**Appendix 4-10. Demographics of the Survey Respondents Including Both IB and Non-IB Students**

Category	Subcategory	Freq.	Prop.
<b>School</b>	Daegu 1	76	2.6%
	Daegu 2	315	10.8%
	Daegu 3	152	5.2%
	Daegu 4	42	1.4%
	Daegu 5	86	2.9%
	Daegu 6	77	2.6%
	Daegu 7	125	4.3%
	Daegu 8	677	23.1%
	Daegu 9	95	3.2%
	Daegu 10	333	11.4%
	Daegu 11	34	1.2%
	Daegu 12	279	9.5%
	Daegu 13	59	2.0%
	Daegu 14	23	0.8%
	Jeju 1	10	0.3%
	Jeju 2	116	4.0%
	Jeju 3	320	10.9%
	Jeju 4	107	3.7%
<b>Region</b>	Daegu	2,373	81.1%
	Jeju	553	18.9%
<b>Program</b>	PYP	753	25.7%
	MYP	1,924	65.8%
	DP	198	6.8%
	Non-DP	51	1.7%
<b>Gender</b>	Female	1,329	45.4%
	Male	1,597	54.6%
<b>Total</b>		<b>2,926</b>	<b>100.0%</b>

**Appendix 4-11. Academic Performance Groups**

<b>Only IB</b>			<b>All</b>		
<b>Group</b>	<b>Freq.</b>	<b>Prop.</b>	<b>Group</b>	<b>Freq.</b>	<b>Prop.</b>
Top 25%	817	29.7%	Top 25%	834	29.9%
Upper-Middle 25%	972	35.4%	Upper-Middle 25%	985	35.3%
Lower-Middle 25%	696	25.3%	Lower-Middle 25%	701	25.2%
Bottom 25%	264	9.6%	Bottom 25%	267	9.6%
Total	2749	100.0%	Total	2787	100.0%
<b>PYP</b>			<b>MYP</b>		
Top 25%	272	37.0%	Top 25%	495	26.9%
Upper-Middle 25%	306	41.6%	Upper-Middle 25%	605	32.9%
Lower-Middle 25%	126	17.1%	Lower-Middle 25%	525	28.5%
Bottom 25%	31	4.2%	Bottom 25%	214	11.6%
Total	735	100.0%	Total	1839	100.0%
<b>DP</b>			<b>Non-DP</b>		
Top 25%	50	28.6%	Top 25%	17	44.7%
Upper-Middle 25%	61	34.9%	Upper-Middle 25%	13	34.2%
Lower-Middle 25%	45	25.7%	Lower-Middle 25%	5	13.2%
Bottom 25%	19	10.9%	Bottom 25%	3	7.9%
Total	175	100.0%	Total	38	100.0%

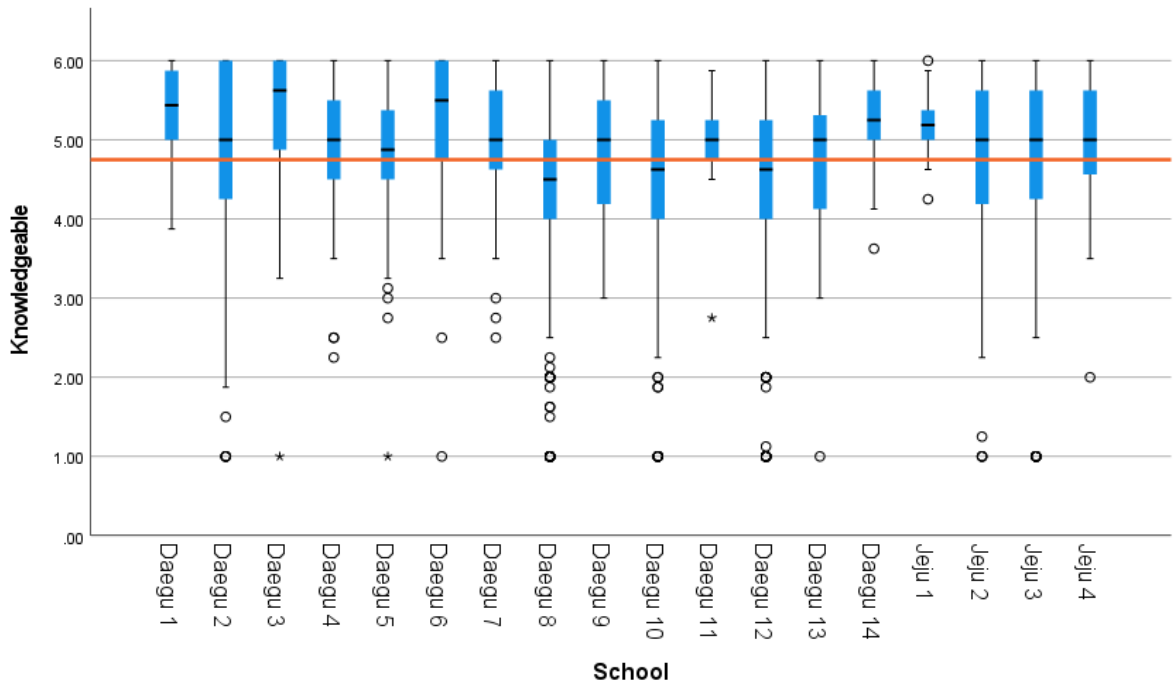
**Appendix 4-12. Reliability of Measured Areas with Cronbach's alpha**

Areas		IB Students		All	
		Cronbach alpha	N	Cronbach alpha	N
LP	Knowledgeable	0.957	2,875	0.959	2,926
	Inquirers	0.952	2,875	0.954	2,926
	Caring	0.954	2,875	0.955	2,926
	Open-minded	0.951	2,875	0.952	2,926
Enhanced Skills		0.974	2,826	0.975	2,868
IB Classes and School Life	Positive	0.942	2,800		
	Negative	0.773	2,800		
IB Assessments	Positive	0.896	2,781		
	Negative	0.864	2,781		



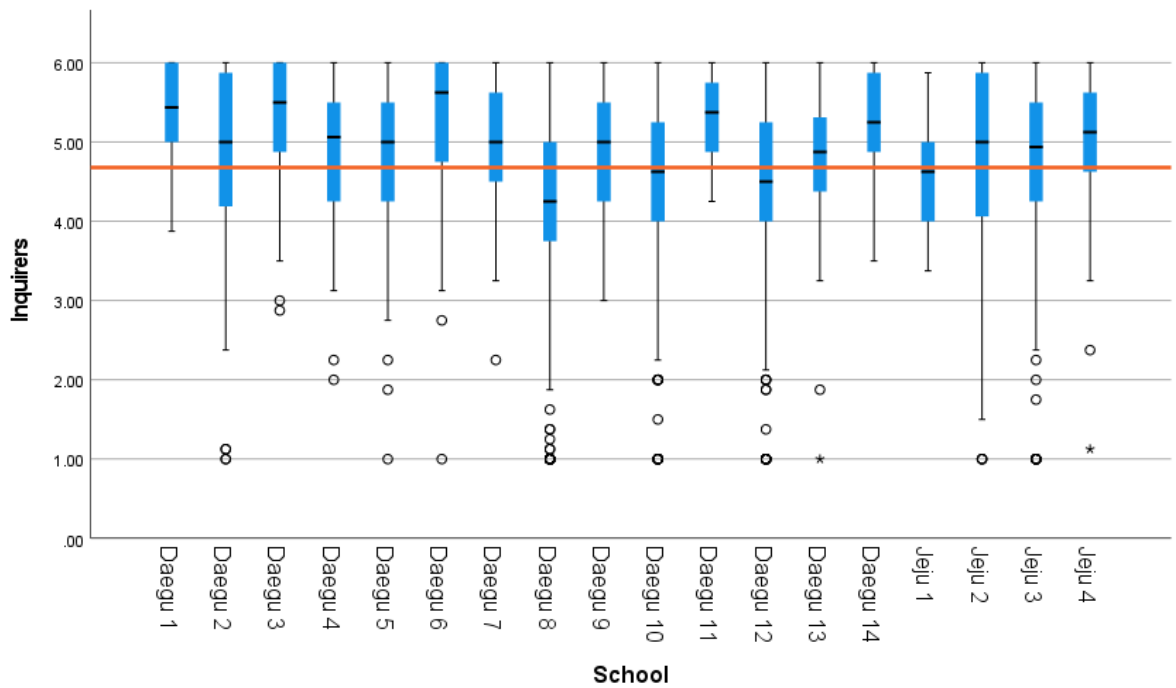
### Appendix 4-13. Box Plot by Individual School – Students

Knowledgeable

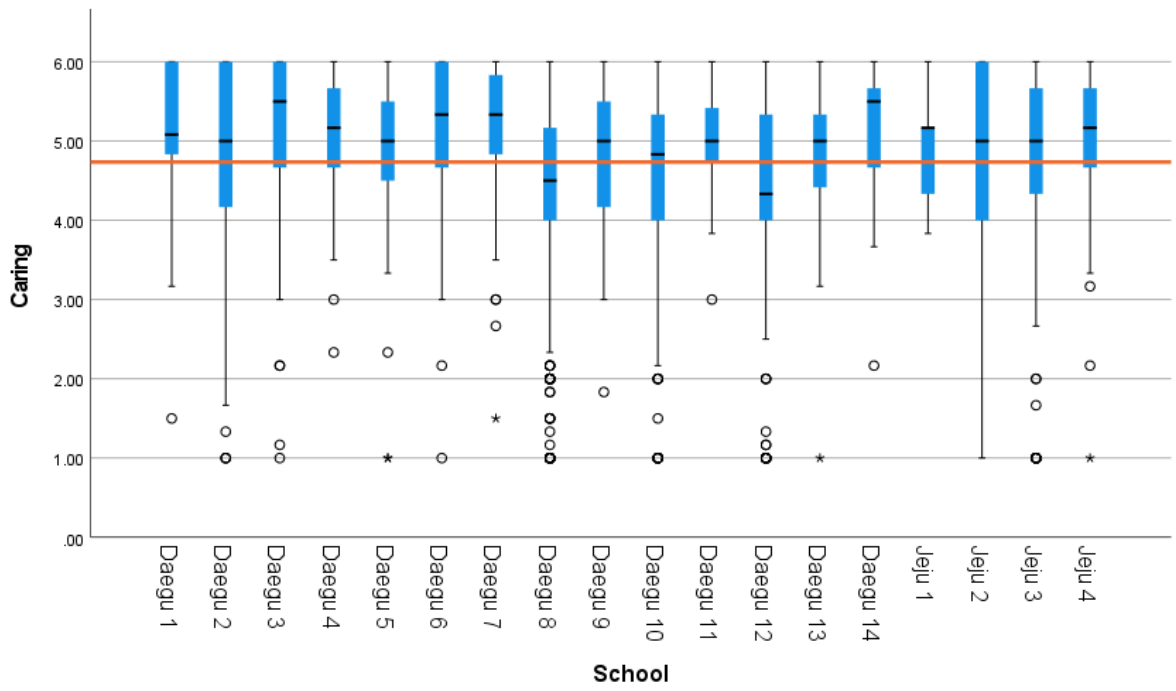


Note. The orange color line is average of all schools.

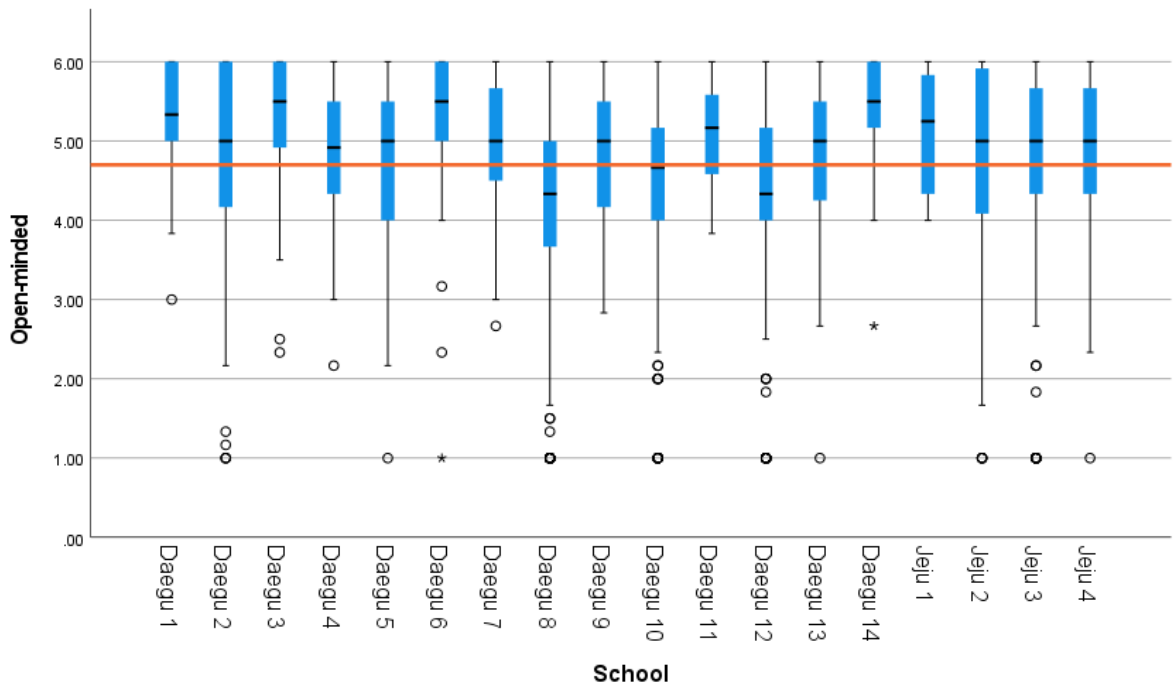
Inquirers



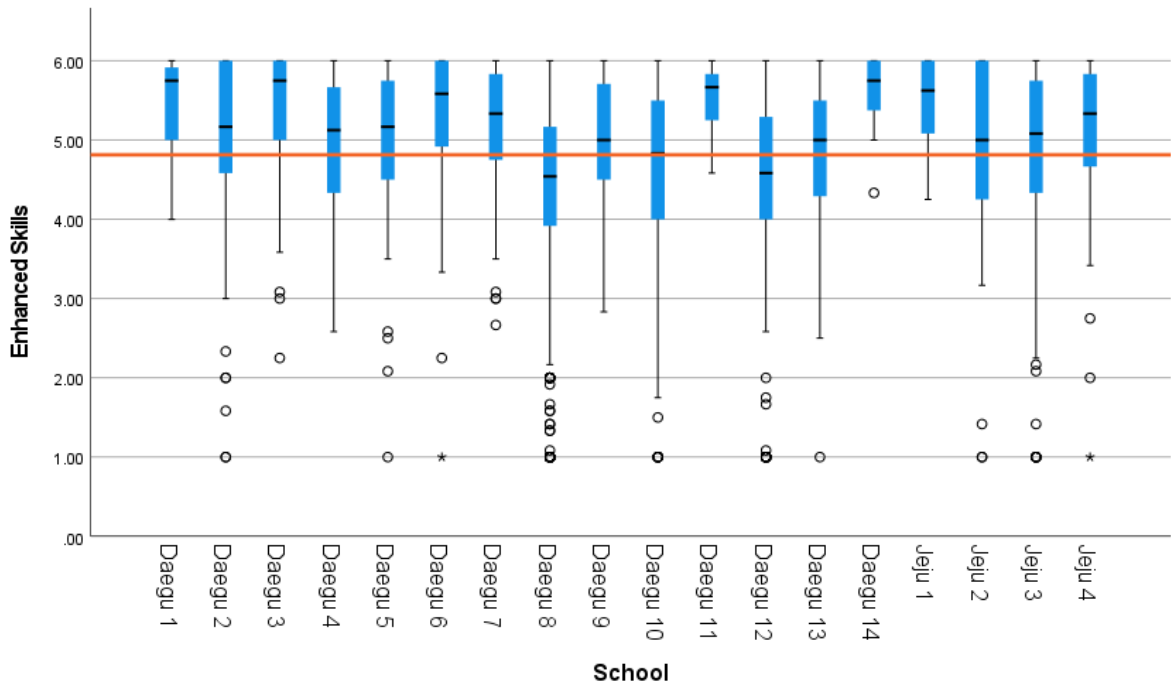
### Caring



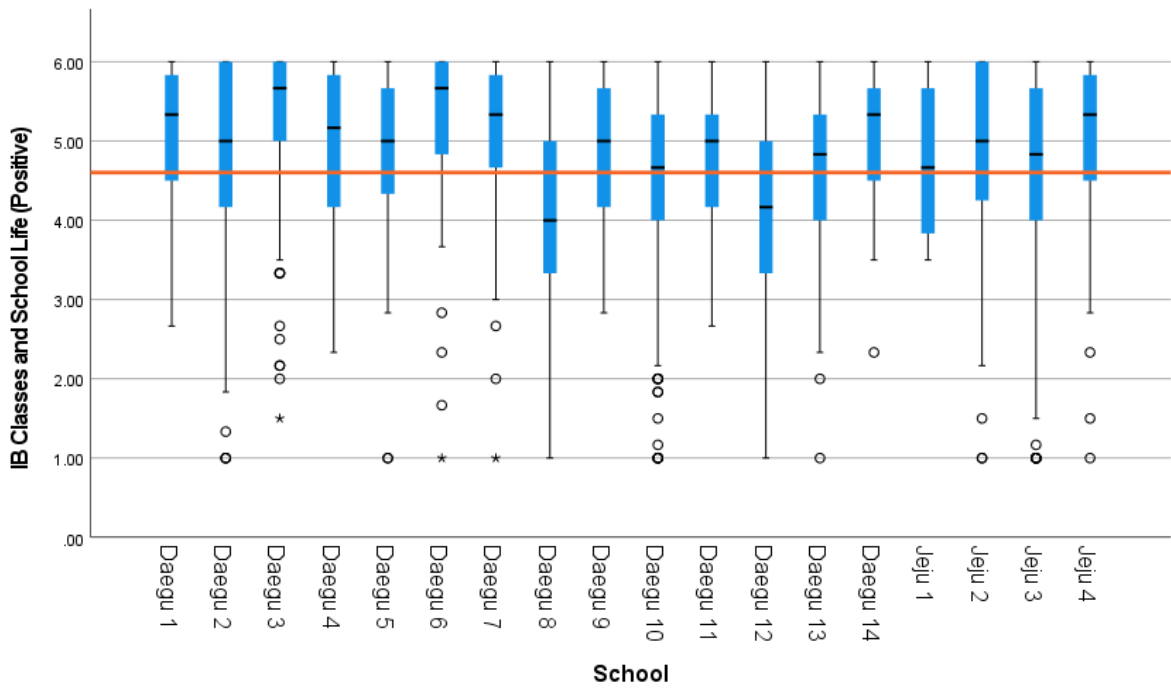
### Open-minded



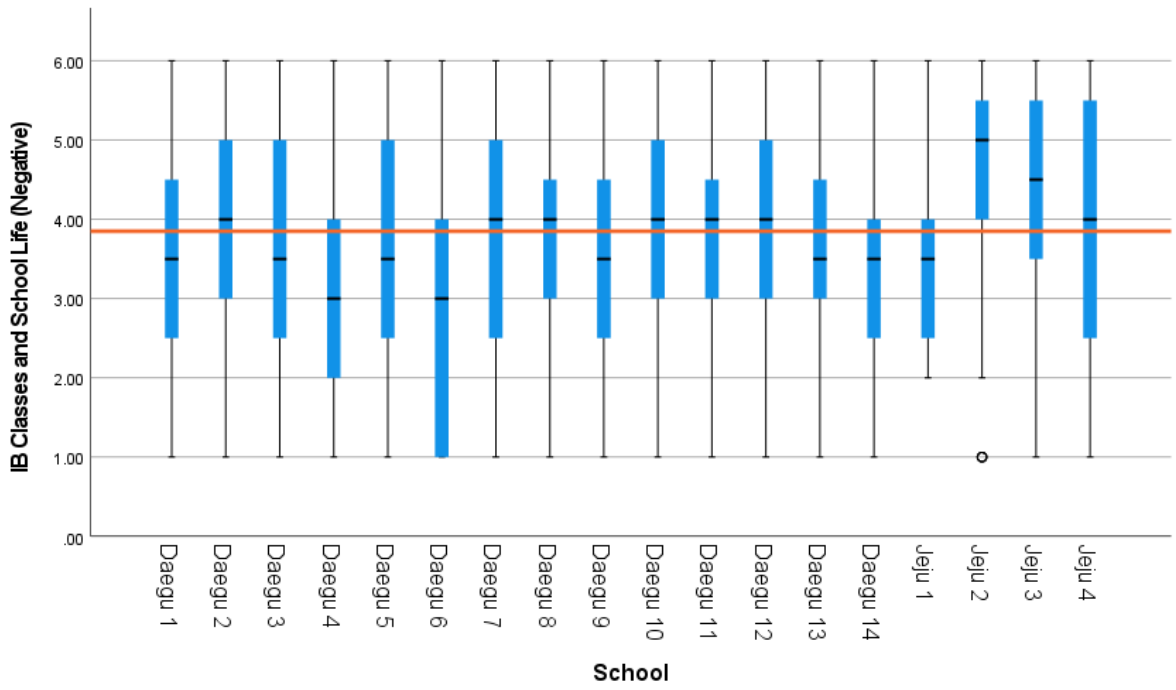
## Enhanced Skills



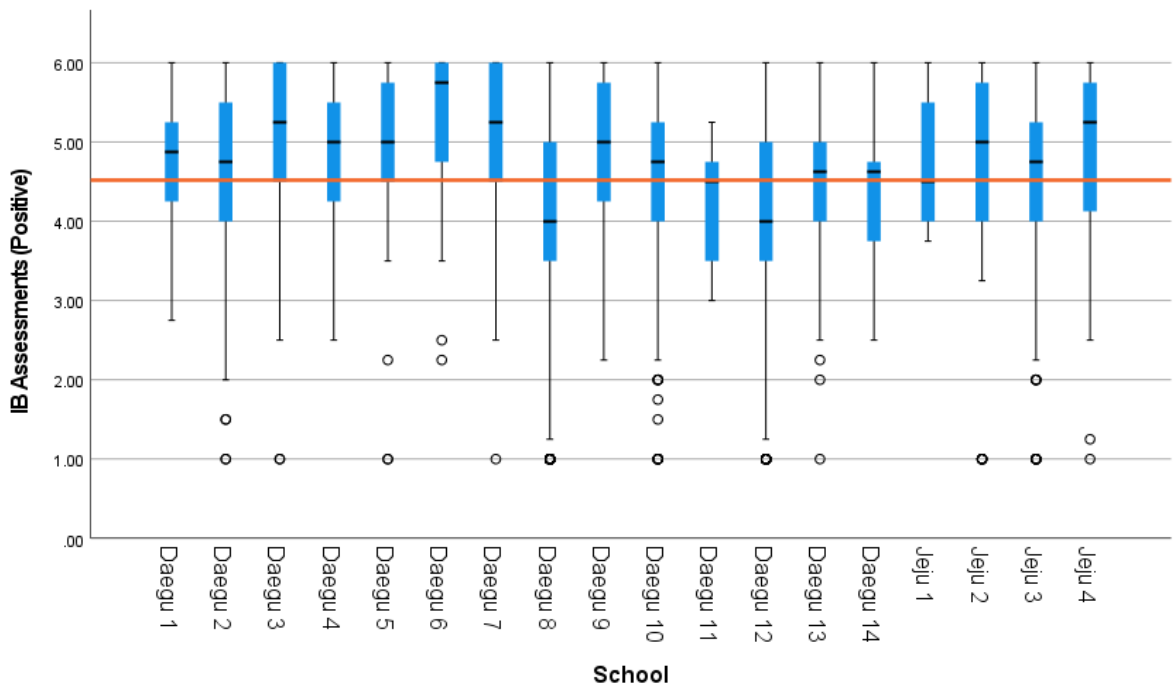
## IB Classes and School Life (Positive)



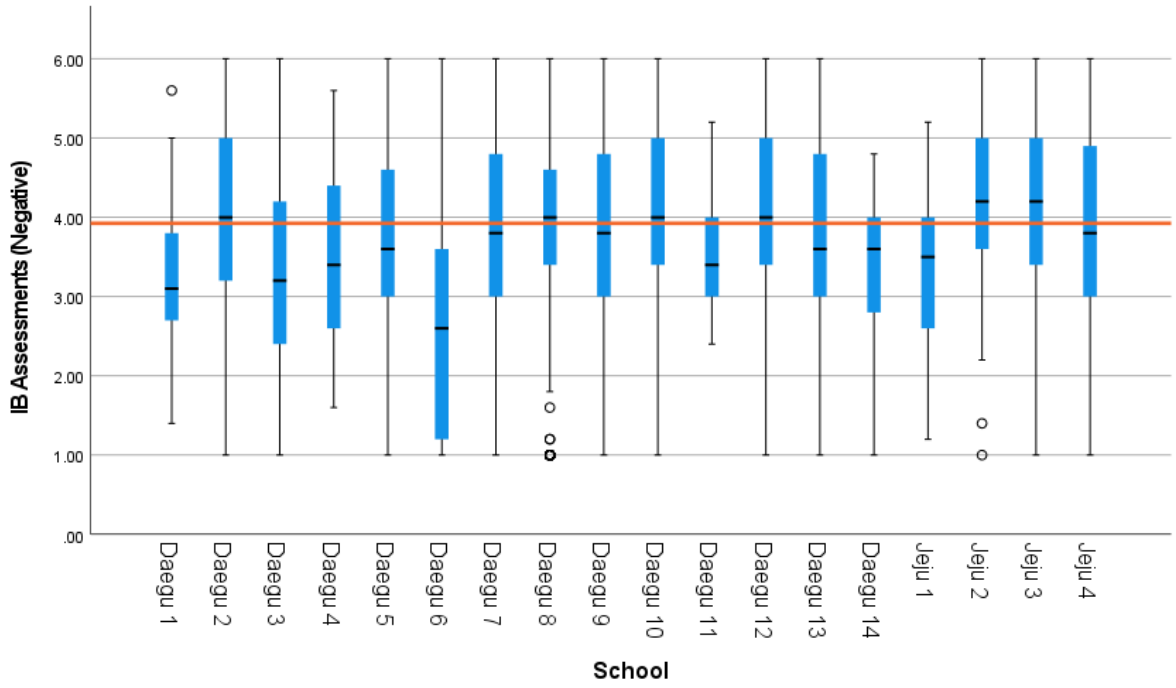
IB Classes and School Life (Negative)



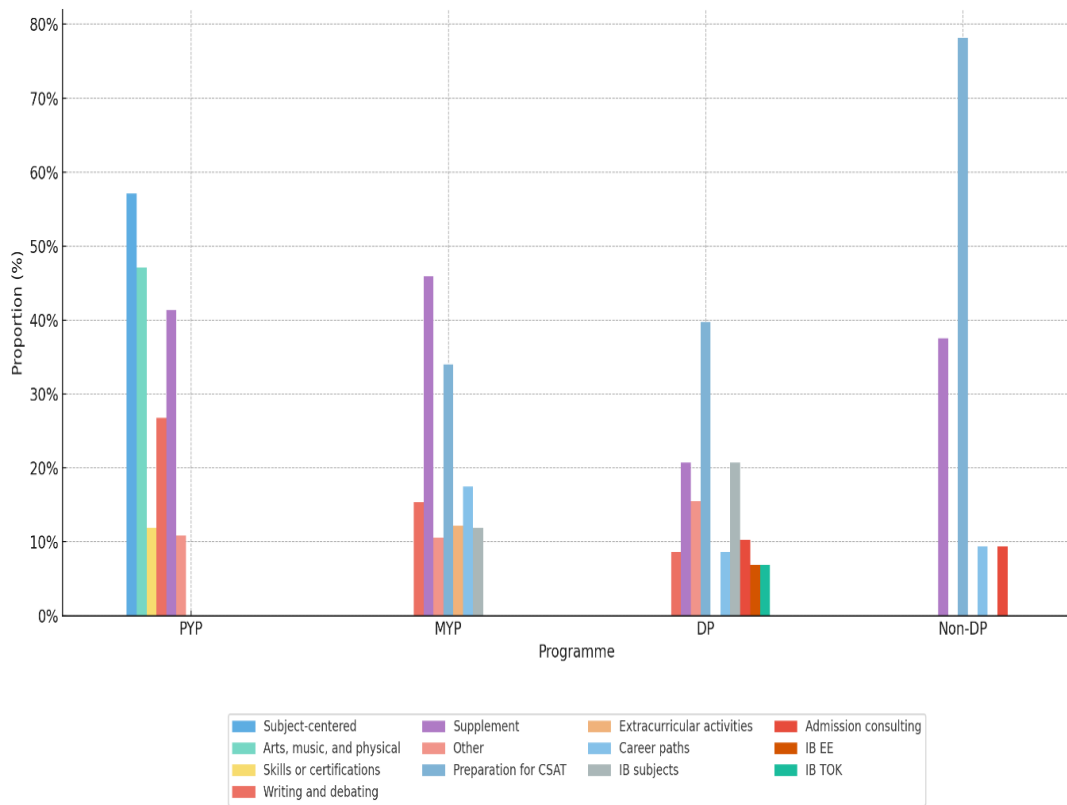
Boxplot of IB Assessments (Positive)



### IB Assessments (Negative)



## Appendix 4-14. Types of Private Supplementary Tutoring Received



Note. Multiple responses to different types of private supplementary tutoring were applied.