



Implementation and Impact of the Dual Language IB DP Programme in Japanese Secondary Schools

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Table 0.1 Terms used in this report

Glossary	
Article One schools	Mainstream schools, public and private, mandated to offer the Japanese National Curriculum
Global Jinzai	Global human resources
IB	International Baccalaureate
IBO	International Baccalaureate Organization
Juku	Private supplementary education ('cram schools')
Kikokushijo or returnees	Students who have studied outside Japan for a prolonged period usually due to their one parent's work
MEXT	Japanese Ministry of Education, Culture, Sports, Science and Technology
METI	Ministry of Economy, Trade and Industry
MHLW	Ministry of Health, Labour and Welfare
MOFA	Ministry of Foreign Affairs of Japan
SGH	Super Global High School (SGH) is an internationalization project for high schools launched in 2014 to nurture global leaders with problem solving skills as well as communication skills.
SGU (TGU)	Super Global University funding or Top Global University funding as the project was subsequently re-named in English (the Japanese version of the name is confusingly still shortened to SGU so we use this (abbreviation in this study) is a 10-year funding project launched in April 2014 that aims to enhance the international compatibility and competitiveness of higher education in Japan.
Renraku-Kyōgikai	Liaison Committee for the International Baccalaureate - Japanese Dual Language Diploma Programme
CPHRGD	Council for the Promotion of Human Resource for Globalization Development

Executive Summary

In June 2011, the Japanese government announced in *An Interim Report of the Council for the Promotion of Human Resources for Globalization Development* its plan to introduce the International Baccalaureate Diploma Programme (IB DP) into 200 Japanese secondary schools over the next five years. At that time there were only 14 schools offering the IB DP; 5 were Article One schools and the remainder were international schools. As of 1st February, 2016, there were 26 schools in Japan offering the IB Diploma; 12 Article One schools and 14 international schools (MEXT, 2016). The initial timeline of five years from 2011 was subsequently revised in 2012 and then again in 2013. Currently, the target year for establishing 200 International Baccalaureate (IB) schools in Japan is 2018. Clearly there is a long way to go, but the increase in Article One schools offering the Diploma Programme in particular is a very promising sign.

An important step toward the expansion of the IB DP in Japan was the creation of a Dual Language (English and Japanese) Diploma. The launch of the Dual Language IB DP was announced in May 2013, with the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) and International Baccalaureate Organisation (IBO) undertaking a commitment to work together. Initial investigations made clear that a Dual Language IB DP would help facilitate the growth of the IB DP into Japanese Article One secondary schools. It allows Japanese schools to offer up to four of the six required subject areas at Diploma level in Japanese.

The research project **The Implementation and Impact of the Dual Language IB DP Programme in Japanese Secondary Schools** ran from May 2014 to June 2015 with Professor Beverley A Yamamoto, Osaka University as principal investigator. She was joined by Professor Maki Shibuya, Nara University of Education, and Associate Professor Takahiro Saito, Assistant Professor Yukiko Ishikura, Assistant Professor Viktoriya Kim, Project Assistant Dr Yujiro Wajima, and research assistants Adam Gyenes, Kim Mawer, and Chika Kitano, all based at Osaka University.

The study seeks to understand the implementation of the Dual Language IB DP and to create an instrument to assess the subsequent impact of the Dual Language IB DP on a variety of student competencies linked to the IB Learner Profile, and others identified by key stakeholders as desired outcomes of this new initiative. More concretely, it attempts to offer a rich description of the implementation of the Dual Language IB DP in Japanese secondary schools in order to identify processes and practices that are supporting and enabling candidate schools as well as to understand barriers and disablers. Secondly, it sets out to create an instrument to measure and establish baseline data to inform on-going programme monitoring and summative evaluation activities.

Key Results from the Research

Implementation

The question of how Japanese high schools are implementing the Dual Language Diploma Programme is a complex one, and there are various factors both inside and outside the schools that act as enablers and disablers.

Therefore, we approached the questions around implementation with the aim of gathering rich and varied data. A multi-methods research design was employed for this component of the study which drew on qualitative and secondary data collection sources.

The qualitative research components can be divided into data gathering that took place inside case study schools and outside. Five case study schools were selected because they were in the process of gaining authorisation from IBO in order to deliver the Diploma Programme. While data generated from the case study schools was our main data source, visiting already established IB schools, holding key informant interviews, and attending workshops collectively generated rich insights that assisted us with addressing the study's questions concerning Dual Language Diploma Programme implementation.

Firstly, we explored the motivations of the Japanese government, MEXT as well as other ministries, and key business interests in pushing forward the IB 200 Schools Project. Our interviews with key stakeholders and a reading of documentary sources showed how a strong push to implement the IB DP came

initially from the business community. Leading business organisations view the IB DP curriculum as an ideal pedagogical tool to nurture Japanese who can act as global *jinzai* (global human resources) and support Japan's economic success in the future. We also found strong support from MEXT, the Ministry tasked with the IB 200 Schools Project. We heard from key officials involved in expanding IB DP schools that the IB DP curriculum fits well with the Ministry's long-articulated goals of fostering *ikiru chikara* (a zest for living) and developing in young people high-level critical thinking skills, learner autonomy including the ability to identify and investigate problems, and global competencies such as international mindedness.

While initially it was thought that the IB DP would be delivered in English, it was subsequently realised by key stakeholders, including MEXT and the IBO, that to achieve the goal of 200 schools delivering the IB DP in Japan, the program needed to be dual language (English and Japanese), rather than a single language (English) program. The Dual Language IB DP policy was, then, a strategic decision to enhance dissemination of the Diploma curriculum, pedagogy, and learning outcomes, even at the cost of compromising on the initial vision of enhancing global higher education mobility in and out of Japan and on the creation of global human resources with high-level English-language communication skills.

As noted above, five case study schools, that had become IB Candidate Schools, generously took part in our examination of the Dual Language IB DP

implementation. We made at least one visit to each case study school and used the data drawn from interviews to examine the motivations and experiences of the schools, as articulated by schools heads and DP Coordinators. In particular we sought to understand any enabling and disabling factors that were impacting implementation as these schools moved ahead to gain authorisation as IB DP schools.

The main enabling factors that we identified were the leadership and vision of key movers in our case study schools as well as a tradition of creativity regarding curriculum development that these schools had already embraced. For our case study schools, introduction of the IB DP was seen as a way of bringing together and enhancing in one aligned curriculum a range of activities that they had previously been doing to some degree, including international education, investigative, learner-centred education, and interactive types of learning. Furthermore, each school embraced in its own way the goal of creating globally minded citizens, which aligned well with the IB Learner Profile.

Another enabling factor was networking, which had been facilitated by MEXT and IBO organised IB Forums and workshops, as well as the IB Liaison Committee for the Dual Language Diploma Programme (*renraku kyōgi kai*). The support of pre-existing IB schools was also highlighted as being important. All five case study schools relayed how important networking was in relation to the progress they had made to date with implementing the DP, and each of the schools had paid visits to existing IB World Schools in Japan. Clearly, pre-

existing IB schools, both Article One and International schools in the 'miscellaneous category' (described later in this report) were offering practical support. There was concern, however, that these schools may experience burn out due to the additional burden of supporting candidate schools. Ideally, as the number of IB DP schools increases the mentoring of new candidate schools can be shared more widely. International schools welcomed their inclusion as IB schools in the wider Japanese educational community.

In terms of disablers, our case study schools identified a number of areas that they felt were acting as impediments to IB DP authorisation and implementation. These include financial, structural, organizational, pedagogical and linguistic challenges.

Cost was mentioned as a major consideration for the privately run candidate schools. It was noted by interviewees in all three private schools that while MEXT offers financial support for the translation of IB materials and workshops, schools themselves receive no direct funding for the programme. The Super Global High School funding was viewed as complimentary to the IB 200 School initiative by some schools, while a distraction to others. Heads of school and DP coordinators noted the generous funding for SGH activities compared to the lack of direct funding to schools for the Dual Language DP implementation.

The costs involved in becoming a candidate school and then maintaining the status as an IB World School are considerable. There are also additional costs

in delivering the Diploma, such as subscribing for Internet connectivity, complying with regulations regarding laboratory safety, and purchasing textbooks. There are costs for students that include purchasing specific maths calculators and lab coats, and paying for examination fees. Schools are reluctant to pass on these costs to students for a number of reasons, not least the desire to make the IB DP available to all who want to take the program regardless of family background. The private schools in particular would like to see more financial help given by the government, especially in the set up stage.

Japanese schools do not use a lot of IT technology as a typical part of teaching, including at the upper secondary level. We were told that many teachers lack experience in using the Internet in class, meaning that enhancing teaching and learning in this area remains an important task. A further compounding issue regarding the use of IT is, we were told, that school authorities are nervous about providing students with easy access to the Internet as there are concerns about students being distracted from school work.

In terms of school management, neither MEXT nor the IBO offers support for student recruitment. In the short term, it will take some years to build a strong IB DP cohort in Japan. The typical class size at Japanese high schools is approximately 40, which is the stipulated budget allocation for teachers from the prefectural government. Consequently, to support small IB DP classes, extra teachers over-and-above the usual school allocation are required, or teachers who are willing to teach both the DP and regular National Curriculum.

A significant structural issue identified by some of our case study schools is the need to fulfil National Curriculum requirements. While some IB DP content can be counted as equivalent to the National Curriculum, there remain parts of the latter that schools have to cover as additional curriculum content over and beyond that of the demanding IB DP content. Depending on the subjects that students take for the Dual Language Diploma, and at what level (standard or higher), the amount of National Curriculum content that would remain to be covered could differ to quite a large degree for each student. For example, a student who takes higher-level maths will have fulfilled much of the designated maths curriculum required for Japanese high school graduation, but a student who took standard-level maths would not. Due to these and other difficulties with aligning the DP and National Curriculum, the announcement by MEXT in June 2015 that there would be more flexibility in how IB content is recognised as equivalent of National Curriculum content was welcomed within the emerging IB DP community in Japan.

The lack of alignment between Diploma exam periods and the Japanese academic year puts further pressure on teachers and students, as DP content needs to be covered in time to meet either a November or May time test period. With the Japanese academic year starting in April, Article One schools are choosing the the November exam period, but this means that student learning is interrupted by two long summer holidays, one in their first and another in the second year of their DP studies. Schools need the IB to be flexible to enable

students to begin work on the DP at the end of year ten (the end of their first year of high school) to enable them to offer the necessary hours for standard and high level courses, as well as complete the EE, ToK and CAS.

Lack of indigenous expertise in the kind of pedagogy embedded in the IB was also raised by case study schools as posing a problem for teachers and learners in schools implementing the IB Dual Language Diploma. While the case study schools had been developing investigative and project-based learning to some degree, there remain many aspects of the DP pedagogy that are unfamiliar for teachers. Examples include, as noted previously, the use of ICTs in teaching, and also criteria based grading and narrative feedback. To support these and other areas of the DP significant training and support will be needed.

Language continues to be regarded as a disabler, despite the introduction of the Dual Language DP. Even DP coordinators who felt they could read English reasonably confidently complained at the large amount of IB related literature that needed to be digested. While MEXT had provided funding for translation of some documentation, our candidate schools needed to move fast in the hope of gain authorisation to begin the Diploma programme in April 2015. As a result, much of the documentation was not ready in Japanese. Some interviewees stated that the documents being targeted for translation were not necessarily those that would aid schools the most. What was wanted most was a Japanese translation of all the instructional documentation that schools need to read to comply with IB standards in the authorisation process. Additionally, schools

explained there was a need for guidelines in Japanese on how to align the IB DP curriculum with the MEXT National Curriculum.

Our schools visits and interviews with main stakeholders allowed us to gain richer insights into the complexities of the implementation process. Taken as a whole, our case study school interviews highlighted the need for practical help in addition to general advice from MEXT and the IBO. If the ambitious goal of establishing 200 IB schools is to be met, there appears to be a need to offer more practical support to candidate schools. In addition, greater flexibility is regarded by schools as desirable on the part of both MEXT and the IB concerning a number of issues identified in Chapter Four of this report.

Establishing Baseline Data

We explored recent Japanese articulations of key student competencies and from these established a number of competency clusters. We also examined the IB Learner Profile and other student competencies that reflect the concept of global *jinzai*, or global human resources, a key idea articulated by the government and business community. From these we developed an instrument to measure and establish baseline data to inform on-going programme monitoring and summative evaluation activities. We administered the instrument with IB DP and non-IB DP track students in three schools that had recently gained authorisation to deliver the Dual Language Diploma Programme. The results showed that there were some statistically significant differences between IB and non-IB cohorts at the point of entry in terms of aspirations, expectations

and interests. We also found some differences between IB and non-IB parents as well that are noteworthy. Key areas of difference are as follows:

- 1) Post-secondary plans - one-quarter of IB students were thinking of attending overseas universities, as compared to less than 2% of the non-IB sample.
- 2) Future working environments – IB students were more inclined towards an international environment and an environment where they are able to take leadership roles in comparison with non-IB students.
- 3) Programme expectations – when asked ‘what are your expectations of what your high school life will teach you’ IB students had higher expectations than their non-IB counterparts regarding ‘Becoming more internationally minded’ and ‘Gaining all-round proficiency in English’, ‘Acquiring the ability to solve problems’, ‘Acquiring leadership skills’ and ‘Acquiring the ability to take the initiative and act on things myself’.
- 4) Student competencies – when asked to provide self-assessments on a range of competencies IB students gave higher self-ratings for being ‘internationally minded’, able to ‘use English effectively’ and being ‘able to make use of information and communication technology effectively’. Self-rated skills and knowledge in mathematics and science were more or less equal for both groups.
- 5) 21st Century skills – using the Kusumi-Hirayama scale revealed, in both an absolute and comparative sense, that IB students rated learning ‘about many different cultures’ and ‘learning by working with others who have a variety of ideas’ more highly than non-IB students.

- 6) In other parts of the student questionnaire, major differences in self-reports between IB and non-IB students centered around global competencies, such as open-mindedness and critical thinking, with these rated more highly by IB students.
- 7) Differences between the parent groups - the largest differences between parent groups were IB parents' higher expectations that high school life would contribute to their children's development of international mindedness and proficiency in English. IB parents were also more likely than non-IB parents to want their children to work in an international environment in the future.

In chapter 5 of this report we have identified limitations with our baseline instrument and results, nonetheless, these early results do suggest students enrolling in the Dual Language DP are well aligned to the nature of the Diploma Programme. We aim to administer the questionnaire at the exit point of senior high school with both groups of students to again compare differences between the two groups.

Acknowledgements

We would like to offer our heartfelt thanks to the administrators, teachers, and students at the participating schools. You have not only welcomed us into your schools and been incredibly generous with your time, despite hectic schedules, but you have also been open with us about your expectations, the challenges, and the hard work involved in introducing the IB DP into your schools. Without this level of generosity and trust, the project would not have been possible in its current form. We offer deep appreciation to those parents and students who were willing to participate in this project. We also thank officials at MEXT, from prefectural Boards of Education, the IB, and *juku* (cram schools) for generously allowing us to interview you and for speaking candidly. We would like offer our thanks to Dr Don Bysouth for proofreading an earlier version of this report. Finally, we would also like to acknowledge the very important contributions of Dr Bradley Shrimpton, Lori Mack and Eloisa Ramos from the IB Asia Pacific regional team in terms of copy editing, final proof reading and presentation of data in chapter five.

Introduction

In June 2011, the Japanese government announced in *An Interim Report of the Council for the Promotion of Human Resource for Globalization Development* its plan to introduce the International Baccalaureate Diploma Programme (IB DP) into 200 Japanese secondary schools over the next five years with the aim of nurturing global human resources, or global *jinzai* in Japanese. At that time there were only 14 schools offering the IB DP, and all but five of these were international schools sitting outside the mainstream educational system. The initial timeline of five years from 2011 was subsequently revised in 2012 and then again in 2013. Currently, the target year for establishing 200 International Baccalaureate (IB) schools in Japan is 2018.

As of 1st February, 2016, there were 26 schools in Japan offering the IB Diploma, 12 Article One schools and 14 international schools (Table 0.2). These schools are largely concentrated in the metropolitan Kanto area and a small number of prefectures with large cities. Currently only 12 of the 47 prefectures in Japan have a school offering the IB DP. Only 9 prefectures have an Article One school offering the IB DP. Clearly there is a long way to go, but the increase in Article One schools offering the Diploma in particular is a promising beginning.

Table 0.2 Schools offering the IB DP in Japan by prefecture and school status as of February 2016

Prefectures	Article One	International
Tochigi	1	
Gunma	1	
Tokyo	3	5
Kanazawa		3
Shizuoka	1	
Nagano	1	
Aichi	1	1
Kyoto	1	1
Osaka		1
Hyogo		1
Hiroshima	1	1
Fukuoka	1	1
Okinawa	1	

.Source: see MEXT, 2016.

An important step toward the expansion of the IB DP in Japan was the creation of a Dual Language (English and Japanese) Diploma, which is expected to help overcome the formidable English-language barrier that would otherwise exist for both teachers and learners. The launch of the Dual Language IB DP was announced in May 2013, with the Japanese Ministry of Education, Culture (MEXT), Sports, Science and Technology and International Baccalaureate Organisation (IBO) undertaking a commitment to work together.

It is expected that the Dual Language IB DP will help facilitate implementation of the IB DP into Japanese Article One secondary schools by allowing them to offer up to four of the six required subject areas of the Diploma in Japanese as well as the core components—Extended Essay (EE), Theory of Knowledge (ToK) and Creativity, Action, and Service (CAS). This move opens up the possibility of re-training current teaching staff as IB educators. Indeed, with the

announcement of the Dual Language IB DP, the IBO made commitments to 'significantly grow the number of IB educators in Japan to facilitate workshops and deliver IB Professional Development to teachers and administrators' (IB, 2013). The creation of a Dual Language IB DP would also widen the pool of potential students beyond those with overseas experience or young people who have been raised in particularly internationalised homes or have hitherto received their education in international school environments in Japan.

The research project **The Implementation and Impact of the Dual Language IB DP Programme in Japanese Secondary Schools** ran from May 2014 to June 2015 with Professor Beverley A Yamamoto, Osaka University as principal investigator. She was joined by Professor Maki Shibuya, Nara University of Education, and Associate Professor Takahiro Saito, Assistant Professor Yukiko Ishikura, Assistant Professor Viktoriya Kim, Project Assistant Dr Yujiro Wajima, and research assistants Adam Gyenes, Kim Mawer, and Chika Kitano, all based at Osaka University.

The main objectives of the study were to

- 1) undertake an examination of the implementation of the Dual Language IB DP Programme in Japanese secondary schools to understand the motivations of key stakeholders, and to identify the enablers and disablers of smooth and successful implementation.
- 2) establish baseline data to inform on-going programme monitoring and summative evaluation activities.

With the launching of the Dual Language IB DP in Japanese secondary schools, this study represents the first attempt to monitor the implementation of the Japanese Dual Language IB DP and to create a tool for baseline assessment.

This Final Report is organised into an introductory section and five chapters. In the Introduction we have offered an overview of the research project. In Chapter One, we outline the policy, structural, and pedagogical environment into which the Japanese Dual Language IB DP is being implemented so that the reader can better understand the social and educational context that forms both the backdrop and implementation setting of this project. Chapter Two explores the Japanese literature on the nurturing of 21st century learners that has emerged from policy and educational debates in Japan over the past two decades or so. This literature is generally only accessible in Japanese, and so with the inclusion of this chapter, we hope to add to the wider debate on pedagogy. The translation of key documents into English is by Yamamoto and Ishikura, unless stated otherwise. In Chapter Three, we offer an overview of the mixed-method research design and the rationale for the approach that we have taken. Chapter Four reports on the findings of the research regarding the implementation process, introducing data from key stakeholders and five IB candidate schools. In Chapter Five, we offer a summary and analysis of our attempts to create baseline survey instruments and report on the findings that have been generated from administering these instruments in three candidate schools.

Chapter Six offers some concluding statements. A supplementary report will follow the current one, which will report findings concerning the initial impact of the IB 200 Schools Project on Japanese university admissions policies from a fact-finding survey.

Chapter One

Background to the IB 200 Schools Project in Japan

The following chapter provides a contextualisation of the educational and policy environment in which the implementation of the Japanese Dual Language IB DP is currently taking place. Moreover, it outlines key characteristics of the Japanese education system that need to be considered in understanding the Japanese Dual Language IB DP and IB 200 Schools in Japan project.

Japan and Internationalisation

Japan is a major trading nation, a large international investor, and the world's top creditor nation. Contrasting with its globalised economy, however, it is often noted that Japan's society and educational system remain relatively closed to the outside world. Indeed, Dujarric & Takenaka (2014) suggest that Japan has a globalised economy without a globalising society. While several well-known Japanese companies are active in the global market, many parts of Japanese society are parochial in outlook. While this has positive as well as negative aspects, Japanese leaders hope to see the country remain as a major economy. Nurturing a generation who are able to compete globally is regarded as critical in this respect.

While Japan may be criticised for being relatively closed to the outside world, it should not be forgotten that the country does extremely well in international scholastic assessment tests. Japanese fifteen-year-olds are consistently top

performers in the OECD's Programme for International Student Assessment (PISA). Even in 2003, a year referred to as 'PISA shock' in Japan, the score of students in all tested subject areas would have been the envy of many countries.

Nevertheless, in the face of global competition, there is pressure on schools and universities from powerful stakeholders within Japan to internationalise in order to attract the 'best and brightest' students from overseas and to ensure that Japanese university graduates are better prepared for leading and creating business in a globalised economy.

Over the past two decades Japan has been enjoying some progress in terms of easy-to-measure output indicators of internationalisation. For example, the number of international students has more than doubled over the last 17 years, from 53,847 in 1995 to 137,756 in 2012 (JASSO, 2012). However, it is widely agreed that Japan's top universities still have a way to go before they become the multinational learning centres that its leaders hope to create. For example, the number of international students in Japan's most prestigious university, the University of Tokyo, is 10% (2,756) out of a total of 27,975 students as of May 2014 (The University of Tokyo, 2015). Osaka University has a higher rate at 14% of the overall student body, but only 2% of undergraduates are international (figures for academic year 2012–2013, Osaka University, 2015). This compares with a third of the student body at the University of Oxford (University of Oxford, 2015) and 20% at Harvard University (Harvard University,

2015), for example. In addition, international student figures are also greatly inflated by short-term exchange students, who generally outnumber degree seeking regular students. In Japan, students, teachers, and staff alike are most likely to be monolingual, and the number of Japanese students studying abroad is lower today. According to the OECD (2013:11), the number of Japanese students enrolling in tertiary institutions abroad dramatically dropped from 62,853 in 2005 to 38,535 in 2011.

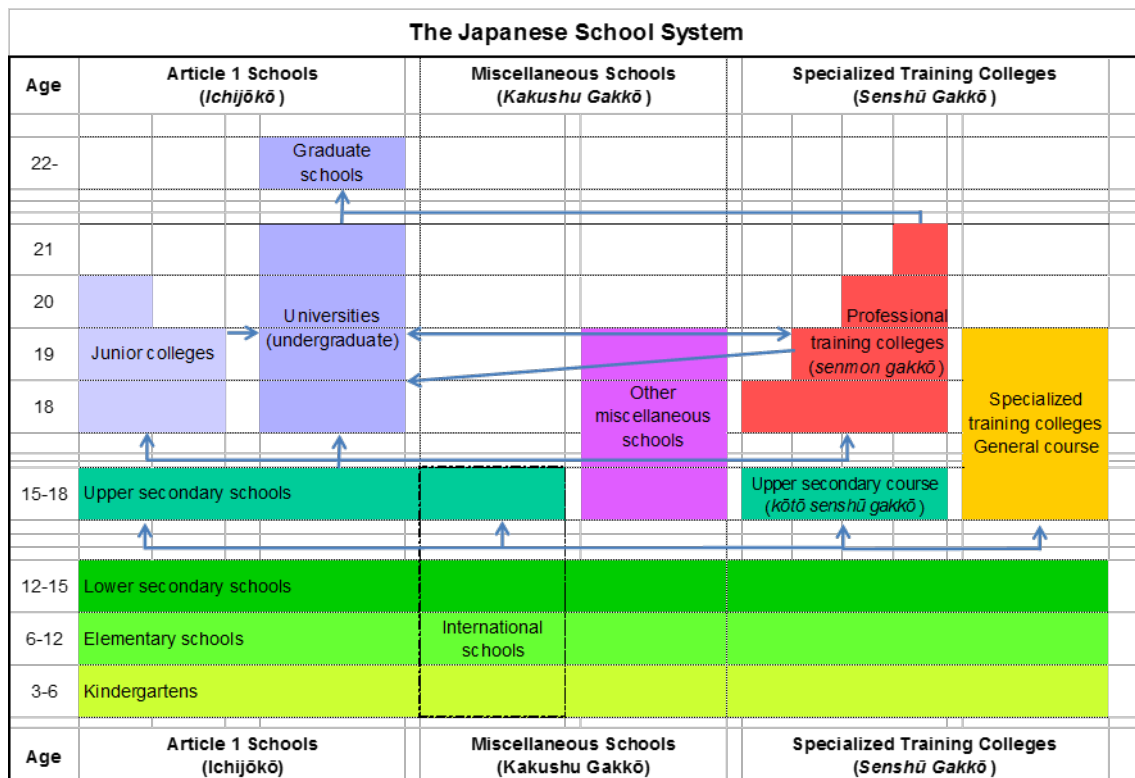
While the idea of internationalisation has been a prominent part of educational policy discourse for many years, there had been few dramatic changes to practice, whether work or pedagogical practices, until recently. However, a shrinking and aging population and a two decades-long economic slump have helped to create an environment in which educating at least some young Japanese to be global leaders has emerged as a priority. Prime Minister Shinzō Abe has stressed that Japan needs to open up or else lose advantage in its cooperation and competition with other countries in the Asia-Pacific region. Japanese education, as one of the main stakeholders in the connections between politics, business, and other social mechanisms, is at the core of proposed internationalisation reforms.

The Japanese School System

The current Japanese education system was enacted in 1947 and is described as a 6+3+3 system: six years of elementary school, three years of lower secondary school (junior high school), and three years of upper secondary

school (senior high school). For over half of young people in Japan, this is then followed by four years of university education (Figure 1.1). Only elementary school education and junior high school education are compulsory, but 98.3% of students proceed on to study at high school (MEXT, 2012). Japanese elementary and secondary schools are divided into public (national or municipally run) or private, which are owned by educational corporations. Japan has a large private sector especially at secondary level, and most of these schools charge relatively low fees compared to the independent sectors in the UK or US for example, as they receive large subsidies from the state.

Figure 1.1. The Japanese school system



An important division in the structuring of school funding and curriculum content

is that between Article One schools (*ichijō-kō*) and Miscellaneous Schools (*kakushu gakkō*) based on the stipulations of the School Education Act. Schools designated under Article One of the School Education Act (and so referred to as Article One schools) receive state and municipal funding, whether public or private, and are required to deliver the National Curriculum as stipulated by the Courses of Study Guidelines (*Gakushū Shidō Yōryō*) through to the end of upper secondary. Miscellaneous Schools, which include most international schools and ethnic schools (for example, Korean, Chinese, Brazilian schools) have complete freedom over curriculum content and are not evaluated by MEXT. However, they also receive no funding from the state and only a negligible amount from the local municipality. In addition, graduation from such schools may or may not create a route to upper secondary schools or universities in Japan. This issue has been particularly difficult for students graduating from ethnic schools, especially some Korean schools, which have no international accreditation.

Article One categorisation includes the vast majority of kindergartens, elementary schools, lower, upper, and combined secondary education schools (NIER, n.d:1). At upper secondary level, there are 5,060 high schools within the Article One category in Japan, of which 3,704 offer the mainstream comprehensive (non-vocational) track as of May 2012 (MEXT, 2012).

Article One schools are accredited by MEXT and provide certification that allows students to proceed on to high school and universities in Japan. The

content of education in these schools is tightly controlled by MEXT in terms of structure, syllabi, number of hours per credit, and delivery. One form of control is achieved through the inspection and authorisation of school textbooks, which ensures a high degree of standardization in curriculum content. The education board at prefectural, county, or municipal levels are required to choose textbooks that have been authorised by MEXT.

Another form of control comes from the Courses of Study Guidelines, which outline in great detail how class content should be taught. Although individual teachers will have their own teaching styles, the content and allotment of time for teaching and learning are stipulated in the Courses of Study Guidelines. All Article One schools have to follow the relevant Courses of Study Guidelines, although schools that receive special designation are allowed a degree of flexibility. Article One schools delivering the IB programmes are given a special designation by MEXT, which should act as an enabler for implementation. Issues around this special status are discussed in the results section of Chapter Four.

Tuition Fees

Elementary and lower secondary schools established by the national or municipal governments do not charge tuition fees, while privately funded Article One schools receive government subsidies that allow for relatively low fees compared, for example, to international schools. As upper secondary is post-compulsory, this level has been subject to tuition fees even if public (national or municipal). However, on 1 April 2010, the Act on Free Tuition Fee at Public High

Schools and High School Enrollment Support Fund was enacted and allowed students to attend public upper secondary schools without being charged tuition. National funds were passed on to prefectures to cover the costs of tuition. Matriculation, textbooks, and class trips, however, are not free.

Private high schools could apply for High School Enrollment Support Funds for students on regular courses with a maximum of 118,800 yen per capita support per year as a universal rather than means tested supplement. Students from low-income households could obtain additional support as a means tested supplement. Again, the Support Funds were distributed from the National Government to the prefecture. The prefectural authorities would then transfer the support funds to the school. Students in private high schools are required to pay the difference between the support funds and actual tuition, which in many schools has been kept low if not at zero contribution level. To do this, class sizes are often larger than in some public schools. The issue of tuition is important when we later consider the costs of becoming and being an IB school and the avenues of support for these costs.

Since April 2014, as a result of a revision in the High School Tuition Support Fund system, all students enrolled after April 1st became eligible to pay tuition and curriculum fee costs regardless of whether they are in national, municipal, or private institutions unless they are from households paying less than 304,200 yen in municipal tax per year (equivalent to an income of 9,100,000 yen). Thus, the system moved from universal tuition support back to a means tested

system. However, as 9.1 million yen is a relatively high income, many students are still eligible for tuition support. Nevertheless, this change has put the squeeze on schools and tuition fees. Students enrolled prior to 1st April, 2014 continue under the old system.

The idea enshrined in the tuition fee policy for Article One schools has been that public schools (national and municipal) provide an education with extremely low tuition fees or no tuition fees at all (2010 and 2014) compared to private schools. Nevertheless, a growing concern about the widening distribution of income and a desire to ensure that all students can afford a high school education led to the changes in 2010 and then additional reforms in 2014 to further reduce the gap between national and private education. This most recent change means that a student's ability to pay is now based on household income rather than on the type of upper secondary schools being attended (national, municipal, or private). Thus, household income has become the most pertinent factor in deciding the level of state support for individual student tuition fees. As many public schools in the provincial areas of Japan are more prestigious than private ones, and thus more competitive to enter, this is an important change. The question of tuition and the different costs associated with a high school education depending on status type of the school (public or private, Article One, or Miscellaneous) is highly pertinent to this study.

Schools in the 'Miscellaneous' Category

In contrast to Article One schools, there has been little support for students attending one of the many schools categorised as 'Miscellaneous'. Schools in this category are 'education facilities other than Article One schools and *senshu gakkō* (specialised training colleges) that provide education similar to Article One schools' (NIER, n.d:1). According to MEXT, schools in the 'Miscellaneous' category 'provide people with vocational and practical training such as dressmaking, cooking, book-keeping, typing, automobile driving and repairing, computer techniques, etc.' (MEXT, n.d.a). Nevertheless, schools in this 'Miscellaneous' category also include international schools with IB World School accreditation and a variety of other schools offering international curricula, such as International GCE O Level and GCE A level courses, or curricula of other national systems outside Japan.

According to MEXT (n.d.b), 32 international schools were accredited as of November 2011 as Miscellaneous Schools. These are regarded in official MEXT documentation as schools offering 'education of foreigners'¹ and, as noted previously, include most of the international and ethnic schools in Japan, as well as schools offering the National Curriculum of other countries. Yet there are many Japanese students enrolled in these schools. Not being subjected to MEXT regulations associated with the National Curriculum, these schools have more freedom and flexibility in choosing their curricula and providing alternative

¹ Though these schools are considered to be 'educational institutions responsible for the education of children of foreign nationals residing in Japan (schools for foreign nationals)' (MEXT, n.d.b), there is a significant number of Japanese nationals studying in these schools (see Shimizu et al, 2013:19-20).

education, hence their attraction to some local as well as international students. However, they receive no subsidies from the Japanese government and only minimal subsidies from the prefecture or local municipality. As they have to self-finance, fees are high or the school environment is poor. Furthermore, graduates from these schools are generally not eligible to take the standardised written entrance exams for Japanese universities and have to take a separate exam to be regarded as eligible to apply for admissions.

Another type of Miscellaneous School worth noting in this report is the cram school (*juku*), known for providing examination preparatory education outside the accredited realms of official schooling. The importance of this supplementary education sector cannot be overlooked. In monetary terms, the *juku* sector is estimated to be worth 93.6 billion yen. So while the mainstream education attempts to make primary and secondary school level education accessible for all by heavily subsidising tuition, households often spend large amounts of income on funding supplementary education (Mawer, 2015).

The important place of the *juku* sector in Japanese education lies in their role to supplement the presumed deficiencies of the Japanese mainstream education system. A question this raises is whether Japan would do as well in PISA without the *juku* system. While obtaining a high school and university education are intrinsically important, the ranking of the school or university decides the value of the certification. The aim of entering a 'good' high school is to in turn enter a 'top ranked' university. Japanese universities, as elsewhere in the world,

are rank-ordered in terms of prestige and reputation, and large corporations and the public bureaucracy in particular promote employees on the basis of the university from which they graduated. This culture pervades all levels of school education since many students start their preparation to enter prestigious universities from elementary school by attending *juku* that have high pass rates for private secondary schools that eventually provide tracks into prestigious universities (Tsuneyoshi, 2013).

The relevance of the *juku* sector is considerable, as nationwide surveys have shown that almost half of elementary school students and around 60% of junior high school students attend *juku* (MEXT & NIER, 2013). Over the years, the roles of *juku* in Japanese education have diversified since declining birth rates have forced them to break into new potential markets. This has led *juku* to broaden their customer range to include pre-school children as well as adults. Indeed, the planned introduction of the IB programmes into 200 Japanese schools has not gone by unnoticed and anecdotal reports suggest that the *juku* sector is already starting to respond.

University Admissions and Internationalisation

While most Japanese universities admit applicants to their institutions through various channels that are in fact much more diverse than it is commonly believed, the main and most common form of university entrance in Japan is undoubtedly through competitive written entrance examinations. University entrance through recommendation (*suisen nyūshi*) and Admissions Office (AO)

Entrance Route (*AO nyūshi*), which usually involve documentary screening and an interview, have become so popular as to account for 43.4% of all the students enrolled in Japanese universities in 2014 (MEXT, 2014). However, these routes into universities have in general functioned as a tool for mass rather than elite selection; highly selective universities, including most national universities and prestigious private universities, still select students based on standardised written exams, whereas less selective universities tend to grant students admission based on recommendations and high school transcripts (Nakamura, 2011:145).

In order to be 'fair', the evaluation criteria of written exams give priority to measuring *gakuryoku*, or scholastic ability, as revealed by the supposedly objective appraisal of students' capacity to memorise facts, numbers, and events and solve mathematical and scientific equations (Sugimoto, 2010:130). Memorisation of these becomes the focus of much high school and *juku* study time, which in turn leads to the general criticism of Japanese education as failing to prepare students with 21st century learning skills.

The hitherto university admissions system is criticised for not paying sufficient attention to the impact of globalisation and internationalisation. Indeed, a growing number of students wanting to enter Japanese universities have studied under a high school curriculum different from that outlined in the Courses of Study, and these include returnees (*kikokushijo*), students who have

studied outside Japan for a prolonged period (at least one year²) due to their one parent's work, international students, and students who have studied through alternative education systems. Universities are belatedly recognising that attracting and enrolling the best of these 'miscellaneous' students is critical for their survival and development in an era of globalisation. Japanese universities today are challenged with constructing university admission systems that meet the changing world of domestic and international education.

Nurturing Globally Competent Human Resources

In an effort to develop a higher education system that serves as a hub for globally mobile international students and to support outward-bound exchange for Japanese students, the government has recently implemented a number of key initiatives: (1) dissemination of information about Japanese culture and higher education; (2) streamlining various processes to ease the entry of international students into the country; (3) MEXT's Global 30 Programme (2009–2014), which aimed to increase the number of both inbound and outbound students by revising admission processes, establishing overseas offices to bolster recruitment, making autumn entry easier, increasing the number of degree programmes offered solely in English, and increasing the number of foreign faculty; (4) improving support services for international students within the higher education system; and finally, (5) integrating international students into Japanese society through employment in Japan after

² In the School Basic Survey (Gakko Kihon Chōsa) MEXT defines a returnee as a student who has spent a year or more studying overseas and then returned to Japan to study. However, schools and universities are able to create their own definitions for any special returnee quota for intakes that can involve longer periods overseas.

they complete their studies (Macready & Tucker, 2011: 69-70).

In the field of secondary education, the IB DP has gained increasing attention from Japanese policymakers and educators due to the perception that the programme can act as a medium for fostering global *jinzai*, or globally competent human resources. As noted previously, in June 2011 the Japanese government announced that it would introduce the IB DP into Article One Japanese secondary schools. Further announcements followed, but in June 2013, MEXT announced its intention to implement the IB DP Programme into the wider school system by offering the Dual Language IB DP, with the ambitious goal of having the curriculum taught in 200 schools in Japan by 2018. This equates to implementing the IB DP into roughly 5% of Article One Japanese upper secondary schools.

It is hoped by those promoting the IB 200 Schools Project that the implementation of the IB curriculum will not only accelerate Japan's internationalisation but also transform pedagogical practices within and beyond IB Diploma classrooms. It is anticipated that the IB DP pedagogy and curriculum will help shift Japan away from an educational system that has been criticised for focusing overly on knowledge-based learning and an exam-centred system that prizes speed and recognition. Those pushing forward the IB 200 Schools Project expect that the IB curriculum's emphasis on inquiry-based learning and critical thinking skills will have an impact throughout the Japanese education system.

Although the IB DP has only recently become a prominent topic in Japanese educational circles, it has been offered in Japan since 1979. Historically, the IB DP has been offered only by international schools, and there was low awareness of it among mainstream Japanese educators. This started to change after the launch of the IB 200 Schools Project in 2011, and awareness has been greatly raised since 2012 when the level of activity associated with implementation of the project increased.

This large-scale implementation of the IB DP raises a number of practical concerns for administration and operation of the Diploma Programme in Japan. One of the major issues is aligning the IB DP curriculum content to that of the Japanese National Curriculum. Another is securing sufficient teachers that can teach IB courses. In addition, regulations regarding teaching certificates must be adjusted to allow international teachers without a recognised Japanese teaching licence to teach in Article One schools. MEXT and individual schools that are interested in introducing the IB DP are dealing with such obstacles as the project unfolds. The practical issues surrounding implementation are one of the focal points of this study and will be explored in depth later in the report.

Summary

In this chapter, we outlined key features of the Japanese education system in order to paint a picture of the context in which implementation of the IB 200 Schools Project will take place. In Chapter Two, we will discuss some of the key

debates around pedagogy in Japan with regard to the promotion of 21st century learning skills and introduce key concepts that have emerged to articulate ideas about skills and competencies in Japan.

Chapter Two

Debates around Pedagogy, Learning Skills, and Competencies

As we described in the previous chapter, Japanese schools are required to cover stipulations involved in the National Curriculum as outlined in the *Gakushū Shidō Yōryō*, or Courses of Study Guidelines, including at upper secondary level. The pervasive style of pedagogy is still very much ‘chalk and talk’ at secondary level, with MEXT approved textbooks and blackboards remaining the primary teaching tools of the classroom. Despite Japan’s very advanced level of ICT connectivity and innovation, there is little use of ICTs within the average classroom. Indeed, smart whiteboards, tablets, or even computers in the classroom are conspicuous for their absence (Aspinall, 2013:68). Until recently, homework largely involved students answering multiple-choice style questions or responding to short-answer questions in textbooks or printed worksheets. There was little project work or investigative learning in most secondary schools.

Measures of *Gakuryoku*, or Scholastic Achievement

At secondary level, classroom practice and after-school assignments reflect an assessment system that is focused on very narrow, easy-to-measure, learning outcomes. It is no exaggeration to claim that the entire education system was, until recently, overshadowed at secondary level by entrance exam preparation

and the perceived necessity of measuring *gakuryoku* 学力, or scholastic/academic ability (Tsuneyoshi, 2013). Measures of *gakuryoku* have generally taken the form of multiple-choice questions that measure speed of recognition. Those who get high scores are students who can quickly identify the right answer. In other words, the education system, particularly at the upper levels, has tended to focus on lower-level thinking skills.

Ability to identify correct answers at speed has functioned as one of the primary measures of *gakuryoku* in the context of what is referred to in Japan as 'examination hell' (*juken jigoku*) that students have gone through to gain access to prestigious institutions at secondary and tertiary levels. While schools at each level have placed significant emphasis on group-work skills, attributes such as empathy and caring, and values such as working together, perseverance and sharing, none of these have appeared in any of the standard measurements of *gakuryoku*. In particular, at the pinnacle of school-based competition, the end of high school, a student's intelligence and achievements have been measured almost solely in terms of *gakuryoku*. As mentioned previously, a massive diversification of the system of university admissions means that at least half of those wanting to carry on with studies after high school are able to enter as a result of school recommendations or AO admissions procedures. Yet for elite institutions, tests of *gakuryoku* remain the main mode of selection.

The tenacity of *gakuryoku* as a measure of educational achievement lies not only in the relative ease of assessment but also in a longstanding attachment to

the belief that it is an effective and reliable measure of a student's current achievements and future potential. Indeed, *gakuryoku* alone was long considered an important indicator not only of students' knowledge and skills but also their motivations and character (Matsushita, 2011:26). A student who can achieve a high *gakuryoku* score garners respect arguably as much for his or her perceived perseverance and ability to defer gratification, as for his or her presumed intelligence.

Employers have long based their recruitment strategies on the assumption that students who were able to enter universities demanding high average scores (*hensachi*) in *gakuryoku* would be more competent future workers than those who did not. Such has been the belief in *gakuryoku* that academic institutions have been ranked 'almost solely on the basis of the average scores (*hensachi*) of their entrants' (Goodman, 2005:4). Only with the advent of global university rankings has the content of what is taught or the research output of those doing the teaching been regarded as a factor in how universities in Japan could or should be judged.

The emphasis on *gakuryoku* as measured by multiple-choice tests has also fitted well in an educational system that places great emphasis on passive deference to the authority of the teacher and on personal humility (Aspinall, 2013:94). Learning involves working out what the 'correct' answers are rather than straying into the unruly domain of asking questions or finding the grey zone of complex and nuanced understanding where 'correct answers' are hard to

find. The teacher's role in the average Japanese classroom has been to ensure that students follow the National Curriculum in terms of content, which means learning from textbooks. Moreover, teachers have been required to ensure that students were aware of what are the 'correct' answers to a wide variety of questions and to memorise these. Japan's high performance generally on the Programme for International Student Assessment (PISA) is, in part, attributable to this process of learning and assessment.

Copying the teacher, who is literally 'the one who goes ahead' or 先生 *sensei*, has a long tradition in Japan. A culture of humility, non-assertion of self, and egalitarianism arguably make it easier to display any acquired knowledge within the confines and relative privacy of paper *gakuryoku* tests where the point of comparison is only with regards to the composite score, rather than by 'flaunting' learning in the more public context of class discussions or project explorations with peers. Having said this, until recently schools commonly posted the individual *hensachi* scores of students in school corridors to allow students to measure their *gakuryoku* against that of their peers.

Moving Beyond *Gakuryoku*

While measuring *gakuryoku* as the primary learning outcome of secondary education has a relatively long history, the challenges to this style of education have greatly strengthened since the late 1990s and into the new millennium. In an age of globalisation and informationization, and in the context of a very low birth rate society, the perceived efficacy of the current system has been called

into question again and again, not just by a few liberal educators, parents and academics, but also by the educational establishment itself including MEXT and industry bodies such as the Keidanren (the Japan Business Federation) (Cave, 2007:16-21).

Current demographics have largely taken the competition out of the schooling system. In an era of *zennyū* (full admissions), where there are more university places than prospective students, perseverance and deferred gratification are hardly required, and even a reasonable display of scholastic ability is no longer a prerequisite for entry into an institution of higher education. As noted, only at the upper ends of the university ranking hierarchy does competition remain in the system (Goodman, 2005:6-7).

Furthermore, globalisation requires Japan to succeed in a fast changing, highly competitive and international market place, where various literacies, including information literacy, and competencies, including critical thinking, international mindedness and communication skills, have emerged as essential components of success. There has also been intense criticism that the current system with its narrow emphasis on *gakuryoku* has nurtured a generation of young people with little curiosity, motivation, or appetite for learning (Cave, 2007:16).

Nurturing 21st Century Learning Skills

Since the late 1990s, a discussion of key competencies began filtering into educational policy discourse. Over the past two decades, there have been

several waves of different competencies that have been forwarded as essential to revitalise Japan's education system and to provide children and young people with an education for a fast changing and highly globalised world. Various slogans have been created to encapsulate local sensitivities and priorities that respond to the wider, international discourse around skills and competencies. These newly identified competencies are numerous but include the following: *ikiru chikara* 生きる力 (literally 'the strength to live', but translated by the then Ministry of Education, Culture and Sports in 1996 as a 'zest for living'), *ningen-ryoku* 人間力 (literally 'competencies necessary to be human'), *shūshoku kisoryoku* 就職基礎力 (translated as 'fundamental competencies for employability'), *shakaijin kisoryoku* 社会人基礎力 (translated as 'fundamental competencies for working persons'), and *gakushi-ryoku* 学士力 (which is translated as 'graduate attributes impacting higher education').

In Japanese, the character for strength 「力」 can be read as either *chikara* or *ryoku*. Each of the kanji compounds rendered into the alphabetic script (*romaji*) above utilise the idea of strength 「力」 to convey the notion of competency. As such, there remains a semantic connection with the *gakuryoku* (*gaku* = learning, *ryoku* = strength), but as will be outlined below, the conceptualisation of strength as competencies goes beyond 'chalk and talk' towards a new style of pedagogy.

Not surprisingly, the Japanese conceptualisation of student competencies has been heavily influenced by wider international debates. For instance, the

Organisation for Economic Co-operation and Development's identification of key competencies outlined in *Knowledge and Skills for Life: First Results from PISA 2000* (OECD, 2001) and *Key Competencies for a Successful Life and Well-functioning Society* (OECD, 2003) have directly influenced Japanese generated competencies. In response to these shifts in the values and ideas advocated by government bodies, the education sector at each level has been required to re-consider the way student learning and learning outcomes are viewed and conceptualised.

Concurrent and concomitant to this was a renewed focus on school and university admission policies (a critical review of what kinds of skills, competencies, and knowledge were being assessed through the entrance exams), lesson content in school settings (a reconsideration of what students were learning that has included not only knowledge but also competencies), and what kind of graduates schools and universities should be aiming to nurture (i.e., what students should have gained in terms of learning, skills, and competencies upon leaving school, or university graduation).

Of the various competencies noted at the start of this section, three sets of competencies are particularly relevant in terms of the present study concerning the implementation and impact of the Dual Language IB DP into Japanese secondary schools: *ikiru chikara*, *shakaijin kisoryoku*, and *gakushi-ryoku*. Consequently, in the next section we describe and contextualise each of these concepts in greater detail and then explore how these competencies may

possibly connect with learning outcomes articulated through the IB Learner Profile. While each of the sets of the Japanese competencies has quite different origins, and each focuses on students at different stages of their education; nevertheless, taken together they paint a backdrop against which we can better understand the Dual Language IB DP policy in Japan, issues surrounding implementation, and some of the concepts that may be useful to utilise in creating baseline indicators to assess impact.

Japanese Conceptualisations of 21st Century Learning Competencies

The idea of *ikiru chikara* can be traced back to statements made by MEXT in 1996 and emerged out of the *yutori kyōiku* movement (referred to as ‘education that gives children room to grow’ in official documentation) that led to significant educational reforms in the late 1990s and early 2000s, including a revision of the Courses of Study, a shortening of the school week to five days and a dramatic cutting down on curriculum content at primary and lower secondary levels (Hood, 1997:5-8; Cave, 2007:19). As early as 1989 there was a new emphasis on the nurturing of individuality, with calls for student assessment that values student interest and motivation (*kyōmi*, *kanshin*, *iyoku*) rather than simply knowledge (*chishiki*) and understanding (*rikai*), which had previously been measured as *gakuryoku* (Cave, 2007:17).

This new emphasis on cultivating interested and motivated learners was encapsulated in the revision of the Courses of Study generally, and most prominently with the inclusion of a new paragraph that became a part of both

the primary and secondary school level editions:

When devising and carrying out the school's educational activities efforts must be made fully to realize education which gives thorough guidance on basic content and makes the most of individuality (*kosei o ikasu*). Also to be fostered are motivation to learn for oneself, and the capacity to cope as an independent subject with changes in society (*mizukara manabu iyoku to shakai no henka ni shutai-teki ni taidō dekiru nōryoku*) (Ministry of Education, Science and Culture, 1989:1; cited in and translated by Cave, 2007:17).

The idea of *ikiru chikara* was introduced into public discourse in 1996 in a report on education reform entitled *On Education for the Twenty First Century in Japan* (Ministry of Education, Science and Culture, 1996) and introduced into the 15th session of the government's advisory council, the Central Council for Education (*Chuō Kyōiku Shingikai* or *Chukyōshin* for short). The idea of *ikiru chikara* at that time combined qualities long thought to typify Japanese sensibilities and values, such as consideration for others (*omoiyari*), cooperation, and sociality (*shakaisei*), but also newer ones seen to be necessary in the run up to the 21st century, such as creativity, individuality, and independent thinking (Cave, 2007:18).

The *yutori kyōiku* policy proposed in 1998 can be viewed as the

operationalization of the new emphasis on *ikiru chikara* as a desired learning outcome through curriculum reform. Reforms came into effect in the school year 2002–2003 and involved what the media touted as a ‘30 percent cut in the traditional curriculum’ and a shortening of the school week to five days (see Cave, 2007:19) as well as the introduction of new cross-disciplinary learning in the form of Integrated Studies (*sōgō-teki na gakushū*, but usually referred to as *sōgō gakushū*). The aim of Integrated Studies was to ‘develop children’s abilities to think, learn, and explore independently and creatively, discovering and solving problems by themselves’ (Cave, 2007:19).

Despite the student friendly focus, parents did not support the *yutori kyōiku* reforms, and teachers, who were not used to teaching across disciplines even at primary level, were likewise not supportive of Integrated Studies. Without any significant change in the content of entrance examinations set by top private institutions, the cutting back on curriculum content in school did not free students so that they would ‘have time to grow’. Instead, it made private schools, that were free to offer more school content, and *juku*, or afterschool cram schools, appear to be a necessity for those with elite school intentions (Aspinall, 2013:139). As mentioned above, over 60% of students in junior high schools attend *juku*.

A sharp decline in Japan’s ranking in the PISA in 2003 (referred to as the ‘PISA shock’) that was again replicated in 2006 heightened the intensity of negative thinking about *yutori kyōiku*. As a test considered to be an international

measure of *gakuryoku* by many Japanese, the drop in the ranking on PISA fuelled public concern and subsequently led to a statement by the Japanese government that it would abandon the policy of *yutori kyōiku*. From 2011 onwards, steps were taken to reverse the *yutori kyōiku* policy by adding more hours back into the public school classroom and more content back into the curriculum, whilst generally reforming the curriculum at the same time (Wada, 2011:74; Aspinall, 2013:138). While the *yutori kyōiku* was judged to be a disaster due, not least, to its perceived impact on *gakuryoku*, the idea of *ikiru chikara* has proved to be more robust and has survived educational U-turns. It continues to be a core competency that MEXT would like to see nurtured in all students, and its importance in the latest reforms of the Courses of Study Guidelines has been enhanced.

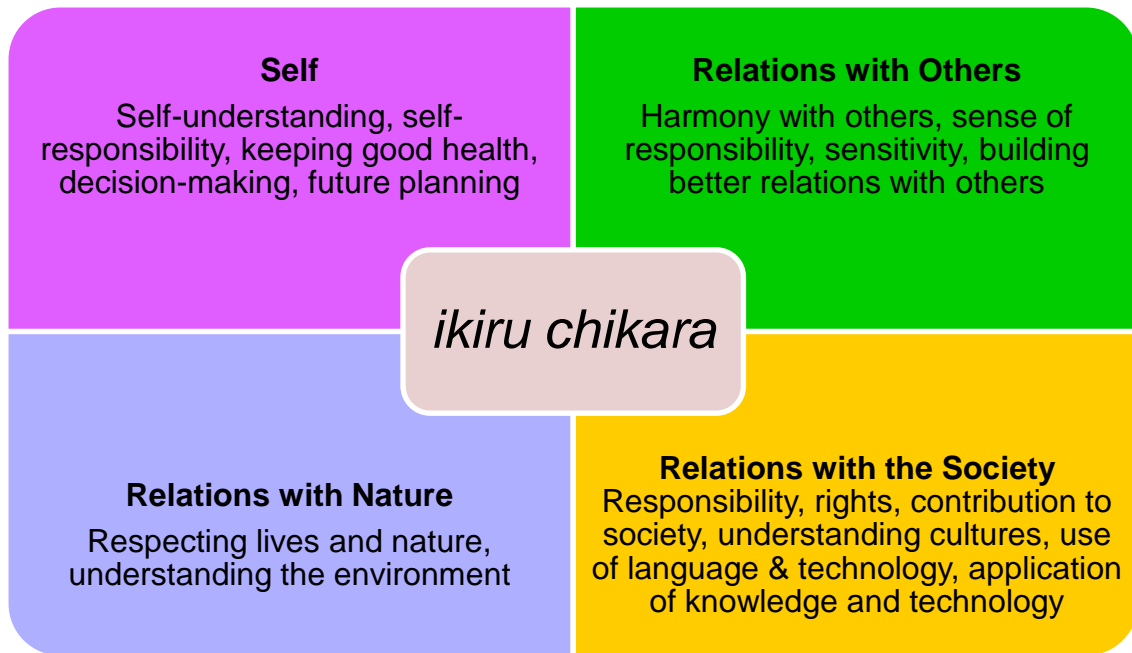
The idea of *ikiru chikara* consists of a broad description of competencies in three general areas. Japanese students have acquired a ‘zest for living’, if they are (translated from Central Council of Education, 1996)

- 1) driven by a propensity to actively seek out tasks independently; learn, think, act, and solve problems with their own resources;
- 2) capable of showing self-control and self-confidence in communicating, empathising, and sympathising with others; and
- 3) are health conscious and have the physical strength required to live energetically.

Moreover, *ikiru chikara* could be fostered by focusing on the following four

elements outlined below in Figure 2.1.

Figure 2.1. Four elements and related skills, competencies, and attributes associated with *ikiru chikara*



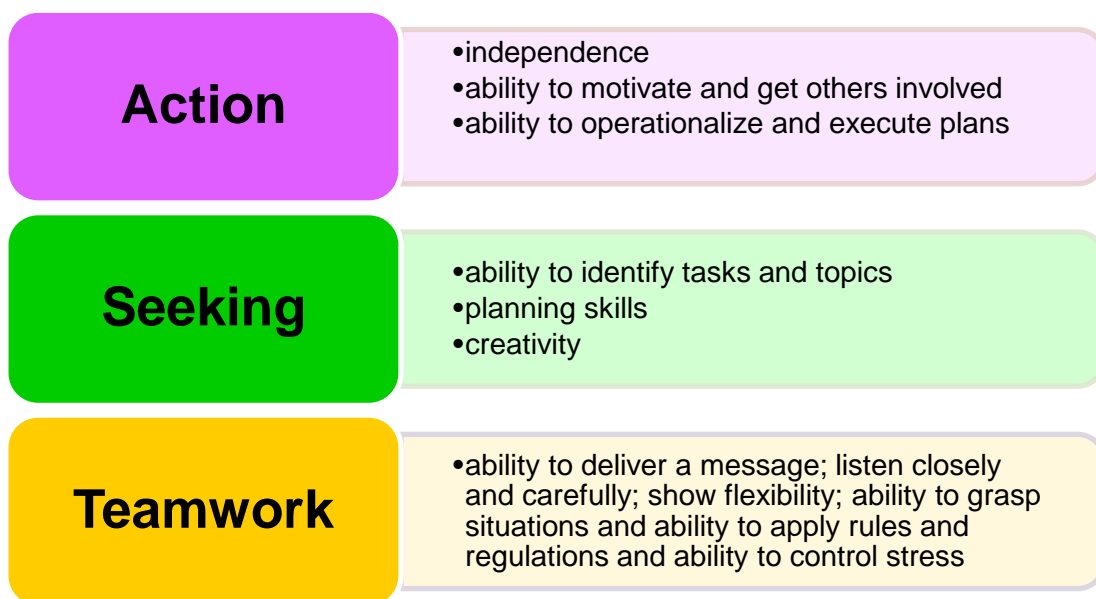
Source: Adapted and translated from Central Council of Education, 1996.

This construction of *ikiru chikara* has a close affinity with the IB Learner Profile, but there are also some important differences, as will be discussed later. First, however, there are two other competency discourses of relevance that need to be covered.

A new competency concept that emerged just as *yutori kyōiku* came under fire was that of *shakaijin kisoryoku* (fundamental competencies for working persons), which was articulated in 2006 not by MEXT but by the Ministry of Economy, Trade and Industry (METI) and is concerned with higher education learning outcomes. *Shakaijin kisoryoku* is focused on the nurturing of

competencies that enable people from diverse backgrounds to work together in contemporary society. It is comprised of three main areas, each with three to six related competencies as outlined in Figure 2.2.

Figure 2.2. Defining *shakaijin kisoryoku*, or fundamental competencies for working persons



Source: Adapted and translated from Ministry of Economy, Trade and Industry, 2006.

While *ikiru chikara* was conceptualised as a set of competencies that should be nurtured in children and young teenagers, *shakaijin kisoryoku* should be viewed as a guideline for universities. It lays out the skills sought by METI and employers of new graduates. This marks a dramatic shift away from the *gakuryoku* goal of school and university learning. It articulates demands by industry that are now being placed on universities to be more than a ‘moratorium’. Previously, the period in university was conceptualised as a moratorium that provides a place for stressed out young adults who, after

achieving well in terms of *gakuryoku* at high school, need a few years to relax and play (*asobu*) before they enter the (even more) stressful life of the Japanese workplace (McVeigh, 2002:4).

Given the strong criticism of the notion of the university as a moratorium space, the conceptualisation of *shakaijin kisoryoku* should be viewed as part of a larger shift in Japanese society towards creating value through the education system that goes beyond simple rewarding previous displays of *gakuryoku*. It represents a change in the way of thinking about university education and the role Higher Education Institutions (HEIs) should play in preparing young people to enter society.

The final concept that will be considered here is that of *gakushi-ryoku*, or 'graduate attributes impacting higher education', which focuses even more closely on graduate learning outcomes. This idea became a part of the educational discourse in 2008 when introduced by the Central Council of Education. It is the government's response to globalisation and the advent of a knowledge-based society. The goal is to enhance undergraduate education through the setting of *gakushi-ryoku*, or attributes considered as desirable in university graduates, are outlined in Figure 2.3.

Figure 2.3. Competencies involved in *gakushi-ryoku*, or graduate attributes

Knowledge and understanding	Generic skills	Attitudes
<ul style="list-style-type: none"> • Understanding of multiple and diverse cultures • Knowledge and understanding of culture, society and nature 	<ul style="list-style-type: none"> • Communication skills • Quantitative data handling skills • Information Literacy • Logical thinking • Problem-solving skills 	<ul style="list-style-type: none"> • Autonomy/ Self-management • Teamwork and leadership • A sense of ethics • Societal responsibility as a citizen • Life-long learning

Source: Adapted and translated from Central Council, 1996.

In order to create *gakushi-ryoku*, each university is required to re-examine its diploma policies and include concrete curricula content and teaching pedagogy that will achieve the desired learning outcomes.

The idea of *gakushi-ryoku* is also a driver of the reforms that will be made to the National Centre Test for University Admissions, with a new testing format due to be introduced in 2020 (Central Council of Education, 2015) as well as changes being made by individual universities to their entrance examinations (Kawagoe, 2013). While many universities have moved away from the use of the National Centre Test for University Admissions coupled with individual university-based entrance exams as the main tools of admissions, the prestigious former imperial

universities and top public institutions still rely overwhelmingly on them.

In terms of the development or generation of indigenous ideas of competencies, *gakushi-ryoku* has developed and built on the conceptual know-how garnered from the articulation of the other forms of competencies noted here. Whereas the idea of *ikiru chikara* initially conceptualised learning competencies in rather vague terms that were open to very wide interpretation and gave educators only a few hints as to how they could foster these attributes, *gakushi-ryoku* is an altogether more specific and purposeful list, one that is currently being used to realise concrete changes in Japanese education.

Although none of the competencies outlined here specifically target upper secondary school students, all of them have had or are having an influence on educational discourse generally and provide the context for discussion of the learning outcomes necessary at upper secondary level in particular. We will now move on to consider how the IB Learner Profile resonates with these locally generated ideas of competencies.

Relating the IB Learner Profile to Japanese Competencies

Connecting the IB Learner Profile to Japanese concepts of competencies is important for Japanese schools as they attempt to fit the IB curriculum to the requirements of the National Curriculum. Yet it is also important for schools to be able to connect the goals of IB programmes to Japanese pedagogies if Japan is to internalise or indigenise IB programmes into the fabric of their

schools. As an example, Tamagawa Gakuen, a private Article One international school in Tokyo that has offered IB Programmes since 2007, connects the IB Learner Profile closely to the *Zenjin* (whole person) educational philosophy that the school was originally founded on in 1929 (Tamagawa Gakuen, 2013). If schools are not able to make this kind of link, then the position of an IB programme within the school may seem artificial or contrived. Operationalizing an IB programme through ideas, values, and concepts already embedded in a school should allow implementation to take place without cutting away traditions or long enduring links to the local community.

Yet a comparison of the IB Learner Profile to the competencies articulated in the ideas of *ikiru chikara*, *shakaijin kisoryoku*, and *gakushi-ryoku* reveals some fundamental differences in the conceptual frameworks that support them. Firstly, whereas the Japanese competencies were created by government ministries and handed down to schools and individual educators to adopt, the IB Learner Profile was developed through a bottom-up approach and out of the classrooms in IB schools. The IB Learner Profile originated in the IB Primary Years Programme (PYP) Student Profile in 1997 and was then incorporated into the IB Learner Profile in 2006 for all IB programmes. The Learner Profile gives consistency to IB's vision for students through their whole school education and beyond. In contrast, the Japanese competencies have been developed by different stakeholders for specific ends, and they lack a life-long learner vision, apart from perhaps the idea of *ikiru chikara*. Whereas the *gakushi-ryoku*, for example, sets learner outcomes at the point of university exit, the Learner

Profile is conceived as a 'map of a lifelong journey in pursuit of international-mindedness' (IB, 2006:2). In other words, these are ideals to be aspired to rather than goals to obtain.

Conversely, the IB Learner Profile is also utilised in more practical ways. It is referred to and used by teachers in lesson planning, practice, and student assessment as well as for monitoring and reporting on their progress (Rizvi *et al.*, 2014:7). Rather than a guideline to policy makers in the education sector, the IB Learner Profile is a tool for teachers across all disciplines: a lens through which they can focus their vision of the learner. As such, it is used within IB schools on a daily basis, and teachers and students themselves would be closely familiar with the ten attributes. This would unlikely be the case for *gakushi-ryoku*, *shakaijin kisoryoku*, or *ikiru chikara*.

With the vision of learning as a lifelong journey, the ten attributes of the Learner Profile are described in terms of character traits and attitudes, rather than skills. IB learners do not 'have' communication skills; they 'are' communicators. They do not 'possess' problem solving or logic, but they are inquirers and risk-takers. Specific skills such as data handling or technological literacy have no place in the Profile. Therefore, while the attributes of the Learner Profile can be aligned with the skills and attributes listed in the Japanese discourses, it is important to note some fundamental differences in conception.

Finally, the long tradition of measuring school learning and sorting students

through the measurement of *gakuryoku* should not be treated lightly. With Japan once again doing well in PISA, there is a growing confidence being expressed about focusing teaching, learning, and assessment on *gakuryoku*. Indeed, one of the fierce debates around the Dual Language IB DP is whether the predicted score alone can be used for university admissions, or whether it should be coupled with the National Centre Exam for University Admissions. There are many who are uneasy about using the Diploma Programme score on its own as they fear that 'standards' will fall if the traditional measure of *gakuryoku* is not part of the admissions equation.

The Idea of Global *Jinzai*

The notion of global *jinzai*, or globally competent human resources, has been closely associated with arguments supporting implementation of the Japanese Dual Language Diploma. Because of this, we will finish this chapter with a brief outline of the skills and competencies that have been identified as central to global *jinzai*.

In the 2011 interim report by the Council on the Promotion of Human Resource for Globalization Development, three sets of skills and competencies were identified as necessary to be globally competent human resources. These are as follows:

- 1) linguistic and foreign language skills;
- 2) a self-directed and positive attitude; a spirit of challenge, cooperativeness

- and flexibility; a sense of responsibility and mission;
- 3) an understanding of other cultures and sense of identity as Japanese
(Council on the Promotion of Human Resource for Globalization
Development, 2011:7).

The first set of skills, linguistic skills, refers to foreign language skills, especially English proficiency. The second set of skills is regarded as important for a generation of young people who, to some, seem to resist challenges and appear happy to stay within their own comfort zones. In the last set of skills, cultural understanding is stressed but rooted in a firm sense of oneself as Japanese. Here we can see both nationalist and internationalist agendas being brought together.

The concept of global *jinzai* prioritises skills that are regarded as necessary in the global business environment. The standpoint is both economic and political. Japan needs globally competent human resources to ensure that the nation remains a leading economic power, especially next to its East Asian neighbours. It is from this latter perspective, then, that the drive can also be regarded as political. Education is seen as the key to nurturing global *jinzai*, and the IB DP, which seeks to nurture global citizens, is regarded as a potentially effective tool of national policy and not educational policy, per se. The perception that the IB DP can help nurture global *jinzai* is behind the push for implementation from the government, various ministries, and the business community. A key question, then, is whether the desire to create globally competent resources is a driving

factor behind some schools seeking to become IB World Schools and authorised to offer the Diploma Programme.

Summary

In this chapter, we have explored the various ideas that have emerged in Japan concerning 21st century pedagogies, while stressing that the idea of *gakuryoku*, a narrow level of academic ability based on speed of recognition and response, remains deeply embedded and highly influential in terms of guiding education practice. It was suggested that many of the competencies that have been articulated by various ministries in Japan are being implemented top down, which is in contrast to the IB Learner Profile, which has emerged from bottom-up educational practice.

In the next chapter, we will outline the research design and methodological framework for this study.

Chapter Three

Overview of Research Questions, Design, and Methodology

This chapter outlines the study objectives and research questions, and offers a general overview of the research design and methodology. Chapters Four and Five elaborate further on data collection methods and analysis used for different components of the research.

This research project, *The Implementation and Impact of the Dual Language IB DP Programme in Japanese Secondary Schools*, ran from May 2014 to June 2015. The main objectives of the study were to

- i) undertake an examination of the implementation of the Dual Language IB DP programme in Japanese secondary schools to understand the motivations of key stakeholders, and to identify the enablers and disablers of smooth and successful implementation.
- ii) establish baseline data to inform on-going programme monitoring and summative evaluation activities.

Research Questions

This study addressed research questions in these two areas, around six question clusters (four for implementation, two for baseline monitoring). These clusters are as follows:

Programme Implementation

1. What are the aims and objectives of key stakeholders involved in the implementation of the Dual Language IB DP?

- a) What has motivated the Japanese government and MEXT to support the implementation of the Dual Language IB DP in Japanese secondary schools?
- b) What do participating schools hope to achieve by implementing the Dual Language IB DP?
- c) What links exist between the business community, the Japanese Business Federation, and the government's strong support for implementation of an international curriculum of education?

2. What information and assistance (for example, project briefings, professional development, and other supports) have schools been provided with by the IB, already established IB World Schools in Japan, and the Japanese government to facilitate programme implementation?

- a) Are these activities viewed as effective, culturally appropriate, and affordable?
- b) What activities have school's initiated to support programme implementation, and how do they link to official and/or mandated activities?
- c) To what extent are inter-school networking and cooperation activities taking place to share resources and know-how?

3. What factors and issues have impeded or are impeding successful

implementation? What factors have contributed to or are contributing to successful implementation? Are there any areas of systematic resistance to implementation, and if so, what are the reasons for this?

- a) To what extent do schools perceive support provided by the IB, already established IB World Schools in Japan, and the Japanese government to have aided (or be aiding) programme implementation?
- b) To what extent do schools perceive limits or gaps in the support provided by the IBO, already established IB World Schools in Japan, and the Japanese government?

4. Are there additional forms of support or different ways of assisting schools in their adoption of the IB DP that would better facilitate programme implementation?

- a) Are international schools playing a role as a resource to the newly established IB schools in Japan?

Baseline Data and Performance Monitoring

5. Within the cultural context of Japanese secondary education, what are appropriate data sources and instruments to assess and monitor student outcomes attributable to the Dual Language IB DP?

- a) Using these instruments, what are the pre-Dual Language DP students' academic and non-academic characteristics, including those representative indicators included in indigenously generated ideas of skills and competencies and the IB Learner Profile?

- b) What are parents' concerns and expectations about their children taking the IB Diploma Programme? What value do parents place on the pedagogy of the programme and the Diploma as university entrance certification?

Research Design

In order to explore the research questions in these two overarching areas, this research has employed a mixed-methods approach incorporating both quantitative and qualitative data. These approaches to data collection are outlined below.

Programme Implementation

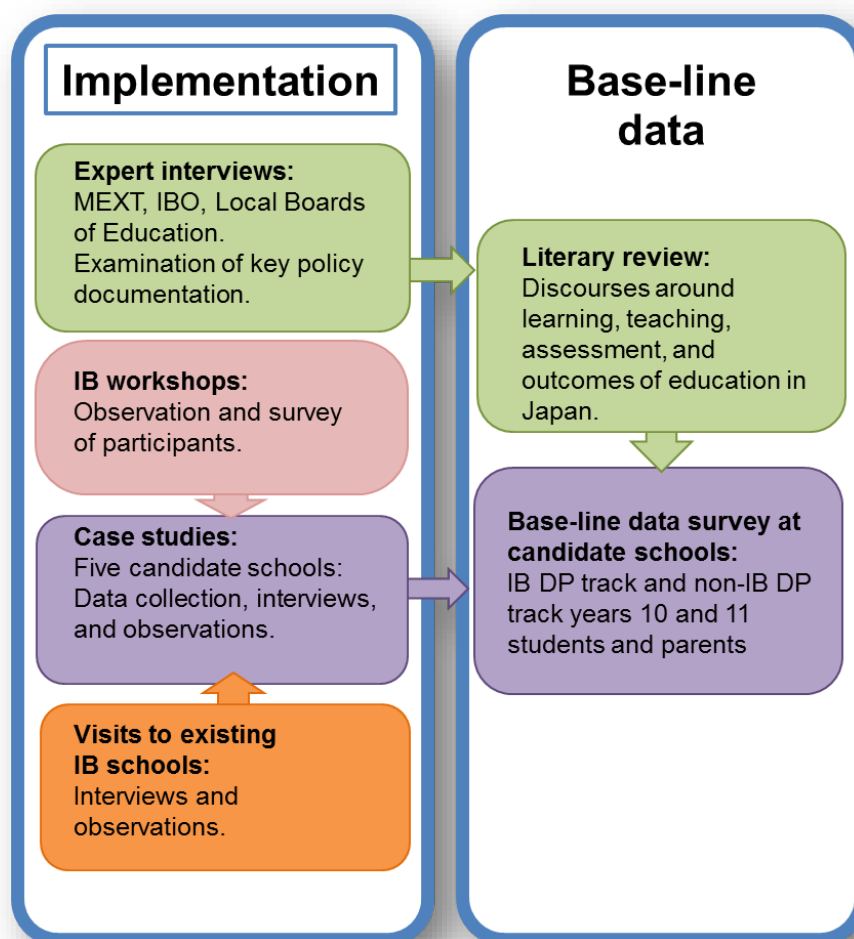
To provide answers to questions around program implementation, case studies were made of five Article One schools in the process of Diploma Programme implementation. Data was collected from these schools through observations and interviews. The case studies were also informed by information gathered from established IB DP schools and by observation of IB DP workshops where participants included Diploma coordinators, teachers, and staff of Article One Japanese schools. Furthermore, to better understand the motivations of stakeholders outside of the schools, interviews were also conducted with officials from MEXT, the IBO, and local boards of education. Key policy documents were also examined. Findings in the area of programme implementation are presented in Chapter Four of this report.

Baseline Data and Performance Monitoring

Gathering data about students in the first cohorts of the IB DP in candidate schools was a major aim of this study. A baseline survey was conducted of both IB Diploma track and non-DP track students in the three candidate schools, and parents of both groups were also surveyed. Instruments for this component of the study were designed based on a thorough literature review of Japanese student competencies, the IB Learner Profile, and IB pedagogy. Moreover, the questions in the survey were formulated to reflect these conceptualizations in a carefully considered and methodical way. This literature review was the basis for much of the information in the previous chapter. The survey instrument was sent to participating schools in April 2015. Additionally, the participants have been tracked and will be surveyed once again at the point of high school graduation as a follow-up to this study. The findings of the initial survey are presented in Chapter Five.

As noted earlier, a more detailed description of the methodologies used in each part of this research project, and the rationale for doing so can be found in the following chapters. Figure 3.1 below provides an overview of the research design, which may be useful to refer back to.

Figure 3.1. Overview of research design



Ethics Considerations

Ethical approval was received from the Ethics Review Committee, Graduate School of Human Sciences, Osaka University (Number 14055). The following principles were observed in the research:

- ✧ Research is conducted on the basis of informed consent from participants.
- ✧ Informed consent was obtained as a result of an Information Sheet for students and parents in the implementation surveys that outlined the goals

of the research, the benefits for the participant of taking part and the wider benefits that are expected from conducting the project, a risk assessment, the voluntary nature of participation, the principle of confidentiality that will be observed, and how the data will be managed. In the case of minors under 16, parents were given the opportunity to decline their child's participation. In addition, teachers explained the purpose of the survey to participating students.

- ✧ Feedback on findings will be made available to participants in a summary form, and we will share the final report with all participating schools.

Chapter Four

Implementation Study

This chapter begins by providing more details of the research design and methodology used for our examination of the implementation of the Dual Language IB DP Programme in Japan. We then report our findings by addressing each of the research questions associated with this aspect of the study. A discussion of the significance of the findings concludes the chapter.

Implementation Study: Research Design and Methodology

The question of how Japanese high schools are implementing the Dual Language Diploma Programme is a complex one, and there are various factors both inside and outside the schools that act as enablers and disablers.

Therefore, we approached the questions around implementation with the aim of gathering rich and varied data. A multi-methods research design was employed for this component of the study which drew on the following qualitative and secondary data collection sources.

Primary data sources:

- 1) Key informant interviews
- 2) Observation and narrative data generation from IB-related workshops
- 3) Case studies at five candidate Diploma schools (interviews and observation)

Secondary data sources:

- 4) Official documentation relating directly to the IB 200 Schools Project

Data was collected between June 2014 and March 2015. Field notes were generated from site visits as well as documentary and visual data. All interview data was transcribed and analysed for key themes, including knowledge of the Dual Language Diploma Programme, stance towards the program, ideas concerning pedagogy and citizenship, commitment and motivation for implementing the Dual Language Diploma Programme, and potential enablers and disablers of success.

The research components can be divided into data gathering that took place inside case study schools and outside. Five case study schools were selected because they were in the process of gaining authorisation from IBO in order to deliver the Diploma Programme. Prior to school selection, six key informant interviews were undertaken, and six IB-related forums and workshops were attended in order to gather macro-level data about factors affecting the schools from outside. In addition, we visited four existing international schools in Japan to speak with head teachers, Diploma coordinators, counsellors, and teachers about their impressions of the IB 200 Schools Project and the kind of support, if any, they were being called on to offer. Site visits lasted between an hour and an entire day. We had opportunities to observe classes and hold meetings with heads and deputy heads during our visits.

While data generated from the case study schools is our main data source, visiting already established IB schools, holding key informant interviews, and attending workshops collectively generated rich insights that assisted us with addressing the study's questions concerning Dual Language Diploma Programme implementation.

Key Informant Interviews

Six key informant interviews were conducted in order to explore the motivations, expectations, perceived challenges, and support for the Dual Language Diploma Programme by various stakeholders associated with the IB 200 Schools Project. Interviews were conducted with two officials from MEXT, two IB officials, one former head teacher who is now playing a key role in the dissemination of information around the IB DP, a chief of a metropolitan Board of Education, a member of the IB Asia Pacific Regional Council, and key educational opinion leaders (Table 4.1). Interviews lasted between 45 minutes and 3 hours. Either the Japanese or English language was used depending on the preference of the interviewee. Three of the interviews were taped and transcribed. We took notes during the other three interviews.

Table 4.1. Key informant interviews

Interviewees: Organization, Name, Position	Place/ Date (yy/mm/dd)	Interviewers	Content
IB Asia-Pacific, Senior Manager of Research	Singapore 2014.06.12	Yamamoto & Kim	Discussion about IB's expectations, specifically concerning implementation

MEXT Two high-level officials from the International Division	Tokyo 2014.07.29	Yamamoto, Saito, & Shibuya	Motivations for IB implementation; expectations of the IB. Other topics included: finding teachers and students; university recognition.
IB Asia Pacific Japan, Development Coordinator	Tokyo 2014.07.29	Yamamoto, Saito, & Shibuya	Discussion of the IB 200 Schools Project implementation; role of the IB; keys to successful implementation of IB DP, etc.
Prefectural Board of Education Chief	Osaka 2014.09.11	Yamamoto, Saito, & Shibuya	Prefectural plans for establishing an IB School; attraction of the UK Academies model; need for educational reform in Japan
Member of the IB Regional Council and principal of an international school & Former principal of two combined international/Article One IB schools and advisor to MEXT on IB implementation	Tokyo 2014.11.11	Yamamoto	New IB candidate schools and progress of the Dual Language project; enablers and disablers of the project; ways to further support schools thinking about implementing the IB DP

Workshop and Forum Participation

During 2015, a number of IB related workshops and forums for school and university stakeholders were organised by the IBO, MEXT, schools, or local boards of education. The aims of these events included: increasing awareness of the Diploma Programme, providing information to universities to assist recognition of the IB DP for admissions, introducing Diploma Programme pedagogical approaches to schools and teachers, and training future IB DP coordinators and teachers. We attended five of these events to engage in networking, collect documentary data, and observe the type and nature of discussions (Table 4.2).

Table 4.2. Workshops and forums attended

Place	Date	Attendant	Contents
Tokyo Gakugei University International Secondary School Workshop on IB teaching style	Tokyo 2014.06.21	Yamamoto ³ , Kim and Shibuya	Observation of classes using IB materials and teaching style (Japanese and English); participation in feedback sessions; interviewed the Head and Deputy Head about the school's role in IB implementation
International Baccalaureate Workshop hosted by Tokyo Gakugei University International Secondary School	Tokyo, 2014.08.6/8	Shibuya	MEXT sponsored 2-day IB Diploma workshops held for teachers in both IB and non-IB schools. The workshops included explanations on administration, coordination, Japanese A, English B, TOK, CAS, biology, chemistry, economics, history, and mathematics. All of these, except for English B, were conducted in Japanese or in English with Japanese translators.
Prefectural Board of Education	Shikoku 2014.09.16/ 17	Yamamoto ⁴	Day 1. Explanatory meeting for Board of Education officials, teachers, and parents interested in the IB DP. Day 2. Involved observation and giving feedback on English Programme at one of the local schools.
7th Annual Tamagawa University Global Education Forum Theme: <i>Towards the Introduction of the DP</i>	Tokyo 2014.11.22/ 23	Shibuya	Day 1. Sample IB lessons; talks on the IB by speakers from MEXT, IBO Japan, and invited speakers from overseas. Day 2. AM. Breakout sessions (one on international education and another on the Super Global High School project. PM. session on IB teacher training.
Kwansei Gakuin University	Hyogo 2014.11.25	Yamamoto ⁵ and Shibuya	Presentation feedback event on the joint Osaka International School and Senri International School (former international and latter Article One, sharing the same campus) research project. Discussion of curriculum alignment and implementation of IB DP.

³ Yamamoto had been invited to this event as a speaker.

⁴ Yamamoto had been invited to this event as a speaker.

⁵ Yamamoto attended as external advisor on this research project.

About the Case Study Schools

To gain an insight into the motivations and challenges faced by schools seeking to implement the IB DP, we recruited five candidate Article One schools. In selecting the schools, we sought to focus primarily on schools planning to introduce the Dual Language Diploma. Additionally, we also wanted to reflect a range of school environments: public and private, urban and rural, large and small in scale, and those located in different regions of Japan.

Head teachers and/or IB coordinators in each case study school were approached between May and June 2014, and asked for their cooperation with the project. There was an initial degree of hesitancy from some of the schools due to concerns that our observations would impact the authorisation process. Once reassured that we were commissioned by the IBO but not working for the organization, all five schools all agreed to participate in the study. Key features of these schools can be found in Table 4.3.

To ensure anonymity of participating schools, the case study sites have been named School A, B, C, D, and E. Additionally, we have generalized some of the key features recorded in Table 4.3 to avoid stating identifying details. For the same reason, we often generalize results rather than identifying a specific statement or set of statements from a particular school. Schools A, B, C, and D planned to offer the Dual Language Diploma, while School E planned to offer the Diploma with English instruction.

At the time of our study School D, a national (state-funded) school, was already authorised as an IB World School offering the MYP and was taking a leading role in the IB 200 Schools Project. The IB Asia Pacific Development Coordinator was also based at the school. As such, this case study school can also be identified as an ‘expert stakeholder’ in this project.

Table 4.3. Key features of the five case study schools

School Name	School A	School B	School C	School D	School E	
Date of Foundation	late 1800s	early 1900s	1950s	2000s	1980s	
Location	urban	rural	rural	urban	urban	
Legal Status/Jurisdiction	Private secondary school	Private secondary school	Private secondary school	Public secondary school	Public high school	
School Organization	Junior (1st-3rd grade) and senior (1st-3rd grade) high schools	Junior (1st-3rd grade) and senior (1st-3rd grade) high schools	Junior (1st-3rd grade) and senior (1st-3rd grade) high schools	Junior (1st-3rd grade) and senior (1st-3rd grade) high schools	Senior high school (1st-3rd grade)	
Student Body	JHS	about 600 students	about 200 students	about 600 students	about 350 students	-
	SHS	about 600 students	about 2,400 students	about 450 students	about 350 students	about 700 students
	Total	about 1,200 students	about 2,600 students	about 1,050 students	about 700 students	about 700 students

Site visits were undertaken at each school during February or March 2015.

School D, the ‘expert’ candidate school, was visited on two other occasions as it hosted IB workshops. Schools A, B, C, and D were visited by Yamamoto, Saito, and Shibuya. School E was visited by Saito and Shibuya.

Interviews with school stakeholders were conducted during site visits. Interview sessions lasted from between 45 minutes to 3 hours and were carried out in Japanese, unless the speaker was comfortable in English. All interviews were taped and transcribed, and key sections were translated into English where

necessary for reporting.

As we complete this final report, four out of five of candidate schools are now authorised to offer the IB DP. Three schools received authorisation in time to start teaching the first Diploma cohort in April 2015. One school received authorisation in May 2015 and will start teaching the Diploma Programme in April 2016. The final school had not yet gained authorisation.

In addition to our case study schools, we visited four international schools, three offering the IB and one that had its own curriculum that has pedagogical similarities to the IB (Table 4.4). We were interested to see whether these schools were being showcased by MEXT or used as resources for training IB DP teachers. Due to previous research on IB schools, Yamamoto, Shibuya, and Kim had established a close relationship with all but one of these schools. These schools were visited to help researchers observe the school environments where IB programmes (or a similar programme in the case of one school) was already being taught. This was particularly important for the teamworking on baseline indicators who had not visited an IB school before. We spoke with the principals, IB coordinators, teacher, and some students, and we observed classes in action.

Table 4.4. Visits to international schools

School	School W	School X	School Y	School Z
Date of visit	Nov. 2014	Nov. 2014	Nov. 2014	Feb. 2015
Visitors	Yamamoto, Kim	Yamamoto, Shibuya, Kim	Yamamoto, Kim	Yamamoto, Shibuya, Saito
Interviewees	head teacher	Chief Executive Officer, DP coordinator, teachers	counsellor	head teacher, DP coordinator, teachers
Class observation	no	no	no	yes
Location	urban	urban	urban	rural
Date of foundation	1940s	1990s	end of 1800s	1990s
School organization	international school	international school	international school	international school
Student Body	(K-9) 390 students	(K-9) 196 students	(K-12) 449 students	(K-12) 260 students

In addition, for the duration of this project, Yamamoto was an external advisor to two Article One schools that had Diploma authorisation. Formal meetings and informal conversations with head teachers, DP coordinators, and/or teachers from these two schools was an additional data source. Information shared with Yamamoto about how one of these schools, which had only recently introduced the IB DP, was aligning the National Curriculum and IB DP proved invaluable and has been used for this report.

Findings

Research Question 1: What are the aims and objectives of key stakeholders involved in the implementation of the Dual Language IB DP?

MEXT and Business Community Motivations

In this next section, we explore the motivations of the Japanese government,

MEXT as well as other ministries, and key business interests in pushing forward the IB 200 Schools Project. We will trace the timeline of the policy through relevant committee and MEXT statements (Table 4.5) and key informant interviews.

Initially, there was little public or media response to the recommendation of an inter-ministerial committee, the Council for the Promotion of Human Resource for Globalization Development (CPHRGD), in its interim report in June 2011 for Japan to greatly increase the number of schools offering the IB DP to 200 within five years. It is possible this was because few people fully understood what was being proposed, as general awareness of IB was extremely low. At the time, there were only 14 schools offering the IB DP Programme of which 9 were international schools sitting outside the mainstream educational system. These schools, and the programmes they offered, were largely unknown by local students, parents, teachers, and the media.

A few months later the Cabinet endorsed the recommendation made by the CPHRGD concerning the plan to increase the number of IB schools, but still the reaction from the media was relatively muted. It was not until the plan to introduce the IB DP into 200 schools was announced in the final report of the CPHRGD in June 2012 that the project started to gain media attention. One trigger for this seems to have been that the International Division within MEXT had begun to make plans for implementation.

Our interviews with key stakeholders and a reading of documentary sources indicate that the aim of expanding the IB DP to 200 schools in Japan did not originate from MEXT but instead emerged within the business community. Nevertheless, when the idea was announced by CPHRGD, MEXT was willing to champion it as the IB DP curriculum was seen to fit well with the idea of *ikiru chikara* and the indigenous competencies that the Ministry had been promoting. Table 4.5 lists the key policy announcements and documents linked to the IB 200 Schools Project chronologically.

The first mention of expanding the number of IB authorised schools in Japan beyond the international school system that we could find in our document review was located in a report produced by the Council on International Exchange Policy (CoIEP) in March 2011. The Council had been set up by MEXT, and its members included university professors and administrators, business executives, and bureaucrats. Within this report the Diploma curriculum was highlighted as a tool for enhancing global mobility. The report noted that international researchers often experience problems with the schooling of their children because Japanese mainstream schools were not able to offer a suitably international environment for their education. The authors of the report offered the view that the expansion of the IB DP into Article One schools would additionally assist Japanese students wanting to study overseas as they could be better prepared for further studies abroad, and their school leaving certificate would be recognised by non-Japanese universities (MEXT, 2011b).

Soon after the CoIEP report, the IB DP was linked by CPHRGD to a newly articulated goal of creating global human resources, or global *jinzai*. This idea quickly came to replace the existing government theme of global mobility and emerged as the dominant idea in policy literature and announcements that have been issued since June 2011. Global *jinzai* were expected to have good communication skills and speak in foreign languages.

Initially, the IB DP was envisaged primarily as an English-medium curriculum that would improve the 'foreign language' and communication skills of young Japanese, and provide Japanese students a more international perspective on the world. In early forums organised by MEXT and the IBO in 2012 and 2013⁶, speakers from MEXT sought to gain support for the IB 200 Schools Project by stressing the poor performance of Japanese students on English-language proficiency tests such as TOEFL and the sharp decline in the number of Japanese students studying overseas from the early 1990s onwards. Survey results were also introduced showing that young Japanese were inward-looking and had little inclination to travel overseas.

By 2012, the Diploma Programme was being presented by MEXT officials at IB forums as a curricular tool for improving the English and international mindedness of the top 10 percent of students in Japanese schools. In other words, there were expectations that the IB DP would produce a globally minded

⁶ The PI on this project attended most if not all the main forums held at this time, many as a speaker and one as a participant only; therefore, she is drawing on her notes and handouts from this time.

leadership track because students would study at top universities overseas or in Japan after completing the DP. More recent announcements by the government and MEXT, since the launch of the Dual Language IB DP in 2013, have continued to stress the IB 200 Schools Project as a strategy for creating global human resources; nevertheless, there is less emphasis on English-language proficiency and overseas study, and more on the nurturing of 21st century learning skills (Table 4.5)

As Table 4.5 makes clear, the launching of the Dual Language IB DP in collaboration with the IBO whereby up to four subjects can be taken in Japanese, with the remainder taken in English, was developed by the Cabinet Office and MEXT as a strategy for increasing IB authorised schools offering the Diploma Programme. It was quickly realised in late 2012 that without significant monetary and human resource support, 200 schools were unlikely to come forward as possible English-language IB DP schools. As such, the Dual Language IB DP policy was a strategic decision to enhance dissemination of the Diploma curriculum, pedagogy, and learning outcomes, even at the cost of compromising on the initial vision of enhancing global higher education mobility in and out of Japan and on the creation of global human resources with high-level English-language communication skills.

Table 4.5. Government policy on the IB DP

Date	Policy Announcements	Issuing Organization	Key Policy Ideas
Mar-2011	Final Report of the Council on International Exchange Policy: Aiming at Bravely Coming Through Our Global Times: Fostering Human Resources that Lead an International Society (<i>Wagakuni ga gurobaru-ka-jidai wo takumashiku ikinuku koto wo mezashite: Kokusai shakai wo riido suru jinzai no ikusei</i>)	The Council on International Exchange Policy (<i>Kokusai kōryū seisaku kondankai</i>). Established by MEXT to focus on how to nurture global human resources (<i>global jinzai</i>)	IB DP is highlighted as a resource to enhance mobility. It is noted that the IB is mainly offered in international schools, and that this creates a heavy financial burden for parents who want their children to take this curriculum. In addition, only a few areas in Japan have international schools. An increase in Article One schools offering the IB would make it easier for overseas researchers to come with their children to Japan, and if Japanese children take the DP, they would have more access to overseas universities.
Jun-2011	Interim Report of the Council on Promotion of Human Resource for Globalization	The Council on Promotion of Human Resource for Globalization (<i>Global Jinzai Ikusei Suishin Kaigi</i> , CPHRGD). Established in May 2011, CPHRGD sits under the Council on the Realization of the New Growth Strategy. It is an inter-ministerial council chaired by the Chief Cabinet Secretary with council members drawn from the following ministries: METI, MOFA, MHLW, and MEXT.	Concerns are expressed that Japanese youth are inward-looking and do not want to travel overseas on exchange. Poor performance in foreign languages is associated with a lack of world competitiveness. The concept of global human resources is defined in terms of three sets of skills: linguistic, cross-cultural communication, and self-direction. In order to nurture global human resources, MEXT recommends increasing the number of high schools offering the IB DP to 200 within the next five years.

Aug-2011	National Strategy towards Revitalizing Japan (<i>Nihon saisei no tame no senryaku ni mukete</i>)	Cabinet Office. Received Cabinet approval on August 5th	The strategy for employment and human resources is highlighted as one of seven strategies for revitalizing Japan. Targets are set for sending more students overseas. There are calls for improvement in foreign language education and, specifically, for the expansion of schools offering the IB DP curriculum.
Jun-2012	Final Report of the Council on Promotion of Human Resource for Globalization Development (<i>Gurōbaru jinzai ikusei suishin kaigi shingi matome</i>)	The Council on Promotion of Human Resource for Globalization Development	The policy of creating 200 schools delivering the IB DP within five years is affirmed.
Jul-2012	National Strategy for Revitalizing Japan (<i>Nihon saisei senryaku ni tsuite</i>)	Cabinet Office. Received Cabinet approval on July 31st	In order to revive the vibrant middle class, a strategy is announced to nurture human resources that can support the Japanese economy. The number of schools delivering the DP should be expanded in order to further practical English education and the promotion of high school students' motivated and able to study abroad.
May-2013	Third Announcement from the Education Rebuilding Council: Concerning What University Education Should Look Like From Here On (<i>Kore kara no daigaku kyōiku no arikata ni tsuite</i>)	The Education Rebuilding Council (<i>Kyōiku saisei jikkō kaigi</i>)	The Japanese government will move ahead with developing and implementing an IB DP that can be partially delivered in Japanese in order to greatly increase the number of IB authorised schools (from 16 to 200).

Jun-2013	Japan's Revival Strategies (Nihon saikō senryaku) 'Japan is Back'	Cabinet Office. Received Cabinet approval on June 14th	In order to enhance global competitiveness, 'nurturing Japan's youth to become globally competitive human resources' is identified as a key strategy. In order to achieve this, a target is set to increase the number of IB World schools in Japan, with a target of 200 schools by 2018. This will be achieved through the development and implementation of an IB DP that can be taken partly in Japanese.
Jun-2013	'Fostering People who Can Play an Active Part on the World Stage': Follow-up Recommendation to Foster Global Human Resources (<i>Sekai o butai ni katsuyaku dekiru hito zukuri no tame ni – Gurōbaru jinzai no ikusei ni muketa forōappu teigen</i>)	Japan Business Federation (<i>Nihon keizai dantai rengō kai</i>)	IB is recognised as offering programmes that can foster communication skills, intercultural competency, logical thinking skills, and problem solving skills in addition to foreign language skills. Considering this, IB programmes are seen as effective for fostering global human resources. It is suggested that IB DP should be appropriately evaluated not only for university admissions but also for company entry. For university admissions, it is mentioned that universities need to utilise English-language testing that can evaluate all four skills as well as the IB DP.
Oct-2013	Fourth Set of Recommendations Concerning the Connection between High School Education and University Education as well as University Admissions and Student Selections (<i>Kōtō gakkō kyōiku to daigaku kyōiku to no setsuzoku/daigaku nyūgakusha senbatsu no arikata ni tsuite</i>)	The Education Rebuilding Council (<i>kyōiku saisei jikō kaigi</i>)	The Japanese government promotes and supports universities to utilise IB DP or IB scores for student selection processes.

Mar-2014	Report on Discussions	The Central Council for Education. Special meeting on the link between high schools and universities (<i>Chūō kyōiku shingi kai, kōdai setsuzoku tokubetsu bukaï</i>)	It is argued that there will be an increase/expansion of IB schools in the future in Japan due to the introduction and development of the Dual Language IB DP. IB is internationally recognised as a beneficial programme to foster not only basic knowledge and skills but also 'self-directed learning skills'. Universities need to promote utilising IB DP and IB scores for university student selection processes.
Apr-2014	Educational Reform on Human Resource Development for the Next Generation (<i>jidai o ninau jinzai ikusei ni mukete motomerareru kyōiku kaikaku</i>)	Japan Business Federation (<i>Nihon keizai dantai rengō kai</i>)	In response to globalisation, it is necessary to foster students with problem-solving skills, logical-thinking skills, communication skills, and a wide knowledge of Japanese history in addition to foreign language proficiency. In order to foster those kinds of human resources, the government has authorised Super Global High Schools (56 schools in 2014) and moved to increase the number of IB schools (200 IB schools by 2018). To increase the number of IB schools, it is necessary to urgently train and secure instructors who can teach in IB schools. Universities that offer teacher training need to offer some programmes to produce IB instructors.
Jun-2014	National Strategy for Future Challenges (<i>Mirai no chōsen</i>). Revision of the "Japan is Back" (<i>Nihon saikō senryaku</i>)	Cabinet Office Received Cabinet approval in June 24th	In order to foster the qualities and capabilities to respond to globalisation, there are plans underway to launch an IB DP that can be taken partly in Japanese (the Dual Language IB DP) and to expand target subjects.

The launching of the Dual Language IB DP saw official emphasis move from language and communication to the broader pedagogical benefits of the Diploma Programme, which was viewed as having the potential to not only facilitate the development of high-level critical thinking skills, learner autonomy including the ability to identify and investigate problems, and international mindedness, but also to also enhance student motivation.

In the interviews with MEXT officials from the Office for International Cooperation Planning International Affairs Division of the Minister's Secretariat, we were able to confirm the above understanding of the IB 200 Schools Project. The proposed large-scale expansion of Article One schools offering the IB DP can be located as a part of national strategy to strengthen Japan's economic competitiveness in the world. MEXT was charged with the task of implementing of this project rather than initiating it. Yet it was stressed by our interviewees that, from MEXT's perspective, this was not an unwelcomed task, as the IB 200 Schools Project aligned with the Ministry's own educational agenda. Next, we expand on both of these points further by drawing on related interview data.

Support for the IB DP Curriculum

Research team members were informed during our interview with MEXT officials that the April 2014 report *Educational Reform on Human Resource Development for the Next Generation* by the Japanese Business Federation (Table 4.5) best explains the rationale behind the IB 200 Schools Project. The key section from this report quoted to us during the interview is:

In response to globalisation, we need to foster students with problem solving skills, logical thinking skills, communication skills, wide knowledge on Japanese history in addition to foreign language proficiency (Japan Business Federation, 2014).

In other words, we were told that the Japanese Business Federation's articulation of the IB 200 Schools Project best expresses the key motivations behind the government's national policy agenda. This highlights how this major educational initiative was clearly supported by industry. That is, the business sector perceived an urgent need for university graduates to have skills and attributes encapsulated in the IB Learner Profile. Some leading figures from the business community are themselves DP alumni and this may have informed their support for the project.

However, as was underscored in the previous section, MEXT officials felt that the IB 200 Schools Project aligned well with MEXT's on-going educational agenda to move from a knowledge input model to an interactive, skills, and competency focused model of education. Elaborating on this, one of our interviewees explained that:

MEXT sees global education as very important. With global education, it is often thought that it means you are proficient in English; however, it is about more than that. We are in an

age where there is less and less certainty in the world about just what it is that students should be learning. In a situation where there are rapid changes occurring in society, students need to have the ability to think (*kangaeru chikara*) about whatever tasks (*kadai*) they are given and to be able find ways to respond to these challenges. They also need communication skills that will enable them to communicate with people from different cultures and different backgrounds, right? These are skills that can be fostered through the IB Programme. . . . Within MEXT we have been keen to foster these skills and competencies for some time now, and, put simply, the questioning style of teaching and learning that the IB curriculum encapsulates—an educational programme that goes beyond simply having a teacher input knowledge, a style which is really common here—if it gets kids to really think, well, that approach is rated highly within MEXT. We thought yes, if this is the kind of curriculum we are talking about, then we can go with it. (Official from International Affairs Division, MEXT 29 July, 2014)

In this extended quote explaining MEXT's support for the Dual Language DP, we can see the articulation of points that are expressed in numerous policy documents concerning the idea of *ikiru chikara* or

'zest for living'. While certain officials in MEXT may have been tasked with implementing the IB 200 Schools Project, there existed a synergy of goals that presumably made it coherent for MEXT to work with this agenda. This potentially explains the dedicated response from MEXT and the International Affairs Division to the challenging task of implementing the IB DP in 200 schools.

Research Question 1b: What do participating schools hope to achieve by implementing the Dual Language IB DP?

In this section, we draw on our interview data to examine the motivations and positioning of the five case study schools in relation to the Diploma Programme. We sought to explore why these schools moved so quickly to become candidate schools and how they viewed the IB DP in relation to their schools.

Understanding why a school would make the effort to change its curriculum so substantially by taking on the Dual Language DP will help inform future development of the IB DP in Japan.

All of the case study schools can be described as having a pre-existing international focus, and this undoubtedly has placed them in a strong position to move towards IB DP implementation. For example, all five schools already offered either international or English tracks or related courses. They also placed considerable emphasis on English proficiency and international understanding. In fact, two of the schools have the word *international* in their

names. Moreover, two schools (schools B and C) have seen their graduates study at universities overseas.

The IB Diploma was seen by the case study schools as a way of bringing together in one aligned curriculum a range of activities they had already been doing, albeit in a more ad hoc way. Additionally, all the case study schools were innovating in terms of pedagogy and were moving towards a more investigative, learner-centred, and interactive type of learning style prior to considering the IB Diploma. Furthermore, each school embraced in its own way the goal of creating globally minded citizens, which, of course, fits well with the IB Learner Profile.

This synergy with the IB mission, however, was not enough for all of the schools to commit to the Diploma Programme prior to the government's current policy initiative. With the establishment of a Dual Language Diploma, the viability of offering the DP increased for a number of the case study schools, with schools A, B, and C identifying the establishment of the Dual Language Diploma as key to their decision to become candidate schools. Below we illustrate how the Dual Language variant of the Diploma allowed the programme to become a realistic option for schools A, B, and C.

School A has a strong International Cultural Studies Course that attracts many short-term exchange students from high schools overseas. School A also has academic partnership agreements with numerous schools and universities

outside of Japan. With such a strong international profile and a tradition of educational innovation, the IB DP was an attractive option for School A. Nevertheless, when the head and current IB DP coordinator, who also studied and taught overseas, initially investigated the viability of the DP curriculum, they decided it was not possible for the school. Not only was there an issue of human resources, but they also felt that an all-English IB DP would require preparation from elementary school onwards, which then led to the issue of securing students capable of taking an IB DP in English. The head and IB coordinator felt that students would need to be immersed in the pedagogy of the IB early and with English medium teaching if they were to do the whole of the IB DP programme in English.

However, when MEXT approached School A with the idea that the IB could be taken partially in Japanese, senior management reviewed the possibility of introducing the Diploma Programme. With the hurdle of language lowered—only English B and one other subject would have to be delivered in English—the school decided to put its name forward to become a candidate school. The head and soon-to-be DP coordinator had an affinity with the IB mission and pedagogy, and felt that by implementing it as part of the International Studies track, there would be a positive pay off for education in the whole school.

School B, a private secondary school, was already searching for an educational curriculum with a global outlook when the IB 200 Schools Project was announced. School B has a branch school overseas that has been used as

a platform for student exchange. The head teacher had been looking for a way to gain some kind of accreditation for the branch school and discovered the Diploma Programme. The kind of pedagogy being emphasised in the overseas branch campus seemed to fit very well with the IB Learner Profile. Initially, the plan was to seek authorisation only for the branch school, but once the Dual Language IB DP was announced, the head began to seriously consider seeking authorisation for the main school. He reasoned that they already had many foreign teaching staff familiar with the IB style of teaching and learning. It would have been impossible to implement and subsidise an English IB DP due to the costs of recruiting enough teachers and training those who were already in the school; however with a Dual Language IB DP, the costs would be greatly reduced. In addition, School B already had an English course track that attracted many returnee and international students, but this track only attracted female students. This is probably due to the gendering of language learning. The head saw the implementation of the Dual Language IB DP as a way of changing the image of the international study track.

School C, a family owned and managed private secondary school, was also interested in the IB as soon as the IB 200 Schools Project was announced. In the 1980s and 1990s, School C had gained a name for itself as a school that prepared students well for university entrance through a form of learning based on the *gakuryoku* idea of speed of recognition. Nevertheless, after the collapse of the economy in the late 1980s, the school began to rethink its mission. The current head had studied overseas and gained some teaching experience

abroad as well. When he returned to work at the school, he decided to re-think the goals of the school and enter a period of reform. He made karate and volunteer activities compulsory parts of the curriculum. The goal was to foster a team spirit and sense of community. The school has since gained a solid reputation in sports and won many awards. Furthermore, the head developed a critical attitude towards education aimed at preparing students only for the examination system, and instead looked to develop students' problem-solving skills, ability to set and reach goals, and awareness of their role as global citizens.

From these three case descriptions it is clear that even in schools with strong international profiles and experience in creating a teaching and learning environment similar to that of the IB DP, the Dual Language version of the IB DP was a critical enabler for programme adoption. As we will see later, the Dual Language DP makes it easier to find staff to teach the programme and students to enrol on it.

Research Question 2: What information and assistance have schools been provided with by the IB, already established IB World Schools, and the Japanese government to facilitate programme implementation?

In this next section, we explore the information and assistance that has been provided to schools as they move towards becoming IB World schools. We identified various levels of support from the top level (IB and MEXT), through

pre-existing IB schools, as well as informal networking and communication.

Taken as whole, these support structures appear to be working to support all five candidate schools as they effectively handle the demands involved in the authorisation and implementation process.

Support from the IB

Each of the five schools were complimentary about the IB consultants and the consultancy process, and reported that they frequently ask their assigned consultants for help. The DP coordinators in particular spoke of the enormous amount of work that needed to be undertaken to move along the authorisation process. The IB consultant appears to play many roles in the process from a *senpai* (a senior who knows more), to cultural interpreter, to an organizer and even confidante. This kind of one-to-one personal contact creates a safe space where schools in general, and particularly IB DP coordinators, can seek and receive useful information, customised advice, and personalized emotional support.

MEXT Support

All of the five schools valued the ways in which MEXT was actively promoting the IB 200 Schools Project at various levels. Representatives from the Ministry had visited some schools individually in order to explain and promote the IB Programme. We were told that generally speaking it was quite unusual for MEXT officials to directly contact schools in this way. The hands on approach by the Ministry was welcomed and taken as evidence of the high-level and active

support and promotion of the Dual Language Diploma.

Some schools appreciated the guidance that MEXT gave for applying for the Special Curriculum School status. This special status makes it possible to have IB DP curriculum content counted as fulfilling components of National Curriculum content. In acquiring this status, schools are required to cover National Curriculum content but within their own specially recognised curriculum framework, which might differ from regular Japanese schools in terms of language of instruction or school subjects offered. In other words, large parts of the IB DP curriculum are viewed as equivalent to components of the National Curriculum.

Support of Local Boards of Education

None of the private candidate schools received any direct support from their local boards of education; whereas, the public schools were gaining board assistance (one at a national level and the other from the local board of education). We were not able to establish whether the latter assistance was over and above the financial support normally offered to the schools.

Nonetheless, the private schools have the opinion that public schools are at an advantage due to support from the local boards of education. The principal from School A suggested that it would be easier for public schools to become IB schools and deliver the Dual Language DP without passing the costs on to students. As each prefecture is expected to have one public school offering the IB DP, the role of the local board of education will be important especially for

publically funded institutions.

Formal and Informal Networking between Schools

All five case study schools relayed how important networking was in relation to the progress they had made to date with implementing the DP, and each of the schools had paid visits to IB World Schools in Japan. It was explained that established IB schools were offering substantial support, and three pre-existing IB Article One schools were mentioned repeatedly as being especially helpful. Indeed, it was noted that the generosity of staff in these schools and the support provided, constituted an important enabler in the process of DP implementation. A concern, however, is that established IB World schools may experience burn out due to the additional burden of supporting candidate schools. Ideally, as the number of Article One IB schools increases the mentoring of new schools can be shared more widely.

We also found that the neophyte DP coordinators exchange information resources and newly achieved know-how informally and readily. This form of support may occur at workshops or meetings organised by the IB or MEXT, through emails, or through telephone conversations. This kind of informal networking offers a much-needed level of practical help for candidate schools as they often face similar problems in implementing the Diploma Programme within the Japanese context.

Lastly, schools mentioned the IB Liaison Committee for the Dual Language

Diploma Programme (*renraku kyōgi kai*) as helpful in providing information about workshops and forums. The IB Liaison Committee serves as an information hub about workshops, forums, and other meetings concerned with the IB DP. One school principal, however, suggested that the committee could play a bigger role. He noted critically that the committee seemed to have confined itself simply to posting information (*renraku jikō*), rather than acting as a hub for information exchange. In another school, the IB coordinator described how she had the impression that the *renraku kyōgi kai* was reluctant to define its mandate in terms of helping teachers with practical issues, such as how to teach the different IB DP subjects.

Taken as a whole, our case study school interviews highlighted the need for practical help in addition to general advice from MEXT. In light of this, MEXT may wish to review its current activities and consider how they could be extended to more comprehensively support the implementation process that schools are undertaking as part of the IB 200 Schools Project.

Research Question 3: What factors and issues have impeded or are impeding successful implementation?

In this section, we further consider factors that have made implementation of the Japanese Dual Language DP more difficult and the main areas of challenge for the candidate case study schools, including financial, structural, and organisational impediments.

Financial Impediments

Cost was mentioned as a major consideration for the privately run candidate schools. It was noted by interviewees in schools A, B, and C that while MEXT offers financial support for the translation of IB materials and workshops, schools receive no direct funding for the programme. The costs involved in becoming a candidate school and then maintaining the status as an IB World School are considerable. There are also additional costs in delivering the Diploma, such as subscribing for Internet connectivity, complying with regulations regarding laboratory safety, and purchasing textbooks. There are costs for students that include purchasing specific maths calculators and lab coats, and paying for examination fees. Schools indicated they were not comfortable about passing these costs to students and would like to see more financial help given by the government.

At one private school, the planned tuition fee for Diploma students will be the same as that for regular students. However, Diploma students will be required to pay extra for calculators, PCs, and exam fees. At another school, the tuition for Diploma students will be 500,000 yen more than the fees for regular students. For this reason, the school is thinking about creating scholarships for those students not able to pay the additional fees. With the current trend towards minimising the costs of upper secondary education in Japan, passing on the costs associated with the IB DP to students goes against recent educational policy reforms. Schools feel it is important that any student should be able to take the IB DP if they are motivated and that fees should not be an

obstacle.

Two schools (A and C) made a comparison between the perceived generous funding that was awarded to schools through the Super Global High School project compared to the lack of direct funding given to IB candidate schools. One school (D), however, saw the Super Global High School (SGH) funding as one way to support the move towards establishing IB type teaching and learning environments. Another school (A) had considered applying for SGH funding on the basis that it might help with the costs of offering the Dual Language IB Diploma, but subsequently decided this might actually distract from this goal as attention would also need to be directed to meeting SGH requirements.

The opinion of the principal of one private school was that, due to the high costs involved in becoming an IB school and offering the Dual Language Diploma, the goal of 200 schools would be very difficult to reach by 2018. He noted with some irony that in comparison, 200 schools quickly came forward and applied to become SGH schools. In his opinion, many schools were applying for SGH funding less out of a commitment to the pedagogical aims of the project and more because of the generous funding that accompanied SGH status. The DP coordinator in another school suggested that some schools that applied for SGH funding might have become DP candidate schools but would now be distracted from this path for a few years.

One school (A) identified the expenses needed to comply with IB directives

regarding classroom/learning settings as being an issue. Our informants in schools A and B explained that they had very little IT connectivity outside the computer rooms, which they had to address. Furthermore, the computer rooms in school A had fixed seating, and therefore were not suitable for the IB teaching style. It was noted that:

Old rooms are not suitable for an IB curriculum. We need movable seats and Wi-Fi networks. . . . Japanese classrooms have a raised platform (*kyōdan*) that the teacher teaches from, but we need a flat floor for the IB curriculum. . . . As such, we have to change our educational environment. (Head Teacher, School A)

We found that the two public schools in our study received some support from the national government and the local education boards respectively. In contrast, without additional funding, the private schools felt that the burden of supporting the Diploma was substantial and led them to be concerned about the future sustainability of offering the programme.

Acknowledging our information is drawn from a limited group of schools, it would seem that the challenges of financing the Dual Language Diploma may be greater for private rather than public schools. Whereas public schools can receive support from local boards of education, private schools need to raise extra funds through tuition or by prioritizing resources differently. Schools also underscored the costs involved in attempting to become an IB school, which

had to be paid without any guarantee that authorisation would be granted. These fees could not be recovered through tuition prior to the DP program being up and running. Some school principals and DP coordinators felt it desirable that these initial costs be covered by a grant-in-aid from MEXT.

In terms of school management, neither MEXT nor the IBO offers support for student recruitment. In the short term, it will take some years to build a strong IB DP cohort in Japan. At one school, the first group of IB students will consist of just 9 to 10 students, with numbers expected to increase to 25 within 12 months. However, the typical class size at Japanese high schools is approx. 40, which is the stipulated budget allocation for teachers from the prefectural government. Consequently, to support small classes, extra teachers over-and-above the usual school allocation are required, or teachers who teach both the DP and regular National Curriculum will be needed. This requires school management to consider creative ways to recruit, utilise, and pay for IB teachers.

National Curriculum Requirements

Another significant issue identified by some of the case study schools was the need to fulfil National Curriculum requirements, which must be met by Article One schools. Specifically, the concern expressed by schools was that while some IB DP content can be counted as equivalent to the National Curriculum, there are substantial elements that are not aligned.

Schools face various challenges when they attempt to comply with the requirements of both the National Curriculum and IB DP curriculum and are attempting to deal with these in a number of ways. For example, School B planned to have students complete in Year 10 most components of the Japanese high school curriculum that have no equivalent in the IB Diploma, such as classical Japanese, civics, health, and physical education. This would involve using a portion of the summer break. Yet even using this strategy, we were told scheduling would remain tight. At the same time, Year 10 would also have to be a preparatory year for the Diploma Programme to enable students to become familiar with the different learning demands of the IB DP.

As already mentioned, the Japanese academic year starts in April and finishes in March, which means that it does not align well with either the northern or southern hemisphere IB calendar. For most Article One schools in Japan, the southern hemisphere calendar for final examinations fits somewhat better than the northern hemisphere schedule. If students complete their exams in November, there is a period of just over four months after the IB DP has been completed that can also be used to fulfil any remaining National Curriculum components. Some schools propose using this time to balance the demands of the two curriculums. However, this again places extra demands on teaching staff, as the IB track students will need special provision to complete all necessary requirements of the National Curriculum.

We were told that depending on the subjects that students take for the Dual

Language Diploma, and at what level (standard or higher), the amount of National Curriculum content that would remain to be covered could differ to quite a large degree. For example, a student who takes higher-level maths will have fulfilled much of the designated maths curriculum required for Japanese high school graduation, but a student who took standard-level maths would not. Similarly, studying world history at higher level in the DP would fulfil much of the National Curriculum world history requirements, but not those of Japanese history. If geography were taken instead of history, then the whole history component in the National Curriculum, which amounts to 4 credits (world history and Japanese history) would need to be covered at some other point in the school calendar before graduation.

Due to these and other difficulties with aligning the DP and National Curriculum, the announcement by MEXT in June 2015 that there would be more flexibility in how IB content is recognised as equivalent of National Curriculum content was welcomed within the emerging IB DP community in Japan.

School Environment and Pedagogical Issues

Japanese schools do not use a lot of IT technology as a typical part of teaching, including at the upper secondary level. Since teachers lack experience in using technologies such as the Internet in class, enhancing teaching and learning in this area remains an important task. Additionally, there is often, at best, only Internet capability in the library that can be accessed by students. Schools subsequently need to find funds to support increased Internet usage and to

provide a minimum level of tablets or PCs for IB students, as well as support teacher IT professional development.

A further compounding issue regarding the use of IT is that school authorities are nervous about providing students with easy access to the Internet as there are concerns about students being distracted from school work. In School B, we were told that there was particularly resistance from school authorities to the idea of increasing IT connectivity in the student dorms due to concerns that students might access inappropriate material. The DP coordinator in School B made the following observations:

In terms of use of computers, and I would probably include myself here as well, there is a strong impression that they are for fun for playing games. The image of computers is not very good. For example, if we were to introduce computers into schools, it is felt that all the students will do is play games on them all day. In the case of Japanese education, the concern is that students can access all kinds of things through the Internet, and there is the problem of social networking sites. So the concern is that if we make Wi-Fi available students will take liberties and miss-use it. So these pastoral issues take precedence. (DP Coordinator, School B)

Education around safe Internet usage does not appear to be routine in Japanese schools. Rather than educating students on Internet safety, the

strategy is to restrict Internet access to certain periods of the day or certain supervised locations.

Lack of indigenous expertise in the kind of pedagogy embedded in the IB was also raised by case study schools as posing a problem for teachers and learners in schools implementing the IB Dual Language Diploma. The pedagogy that supports the IB curriculum is very different from that of mainstream upper secondary education in Japan. This means that both teachers and students will be exposed to unfamiliar teaching and learning styles. In particular, investigative learning with clear learning outcomes and assessment criteria are new aspects of pedagogy for many Japanese teachers and students. As such, significant training, support, and time will be required to integrate these in a Japanese school environment.

Organisational Issues within MEXT

Another potential disabler for the IB 200 Schools Project that we identified is the relatively small size of the International Affairs Division of MEXT compared, for example, to the Elementary and Secondary School Planning Division, which launched the Super Global High School project. The staff in the International Affairs Division of MEXT are extremely dedicated to the IB 200 Schools Project, and this was noted by our case study schools. However, the International Affairs Division has far fewer staff dedicated to the IB 200 Schools Project compared with those the Elementary and Secondary School Planning Division has allocated to the Super Global High School project even though it could be

argued that IB Diploma authorisation is more demanding of MEXT officials than requirements for the Super Global Highway project.

Language Barriers

For all those involved in the Dual Language Diploma implementation in Japan, language has been a major barrier due to the paucity of IB documents in Japanese. Moreover, while MEXT has provided funding for key IB documents to be translated into Japanese to aid schools, some interviewees stated that the documents being targeted for translation were not necessarily the type of documents that would aid schools the most. What was most wanted was a Japanese translation of all the instructional documentation that schools need to read to comply with IB standards in the authorisation process. Additionally, schools explained there was a need for guidelines in Japanese on how to align the IB DP curriculum with the MEXT National Curriculum.

Interviewees recalled delays in the translation of IB textbook guides, which became quite an issue for candidate schools. School A independently paid a private translator to have key IB documentation translated into Japanese in order to move ahead with authorisation so that they could achieve an April 2015 start of their Dual Language Diploma. While only the first generation of Dual Language IB candidate schools have been substantially affected by this matter, the question remains whether enough documentation is being targeted for translation. The DP coordinators at three schools complained that even though they can read English reasonably well, the large amount of IB related literature

was challenging, and greater assistance in knowing which documents were most important would have helped this process.

Cultural Expectations of IB Leadership

When implementing any programme that originates from a different culture, expectations of both cultures should be considered. In the context of the Dual Language DP, while the case study schools clearly valued the assistance of IB consultants, the authorisation process was viewed as being arduous, and, as noted previously, schools indicated that more support was needed from IB, especially in relation to authorisation, compliance, and curriculum development. Several schools commented that they had expected more step-by-step and hands-on guidance from the IB than what was provided by the IB consultants. Typically, a more hands-on approach with detailed, practical support would be a standard Japanese practice from those in leadership positions.

Another example of cultural expectations and cultural translation concerns IB requirements for science lab showers, ventilation, and master switches. It was pointed out at one case study school that even though the installation of the above facilities were stated as important during the school inspection, these items had not been listed as explicit requirements in the documentation that had been received during the authorisation process. The specific point of confusion concerned the terms *recommended* and *required*. For the schools, *recommended* means that you do not have to comply with a request. As one DP

coordinator noted:

I think our school's science section is quite advanced. Our labs and all the equipment are in place. And our teachers have been taking great pride in this so far. But when we read the IB guidelines, we realized that we didn't have panic showers and eye washers as well as fire blankets. So we bought them. And when we showed them, the first thing we were told was 'You need to install fans for ventilation'. But there was no such thing as the installation of fans stated anywhere. What is stated is that ventilation is important. So, while the guidelines state that ventilation is important, nothing is mentioned of the requirement to install fans. And even though we said that we are able to have air ventilation, we were told 'No, you have to install fans'.

(DP Coordinator, School A)

Similarly, we heard from a number of DP coordinators that they were confused about the status of some items that appeared to be needed for authorisation, but, from a Japanese perspective, were not clearly mandated as requirements in written documentation.

Transition to University

Although schools are enthusiastic about the IB DP, they are also concerned that universities will not accept a student's overall DP score or individual subject

scores in lieu of the National Centre Exam for University Admissions. This would require students to study for both the IB DP and National Centre Exam, which would place a large burden on students and potentially be a disincentive for undertaking the Diploma Programme.

A further concern from both public and private schools was that Japanese universities do not properly understand the IB curriculum. The following comment, from the head teacher of a private school, illustrates the concerns expressed by schools regarding the different treatment of the IB DP by Japanese universities compared to ones overseas.

As Japanese universities do not really understand the IB, they set all sorts of stipulations with regards to subject choice. They decide which subject you have to take. Of course some overseas universities do this as well but not to the same extent. Japanese universities require that you have a higher in this subject or a standard in this one. They are really strict about subject choice. So it is really difficult [for DP students]. (DP Coordinator, School A)

Due to the perceived difficulty of entering a Japanese national university across disciplines or entering science courses at a private university, one principal predicted that many of his school's future IB students would aim to go to overseas universities. Overall, the case study schools were fairly critical of the universities, suggesting that those in charge of admissions do not yet

appreciate the Diploma Programme or how to utilise DP students' transcripts.

Interviewees stressed that they wanted Japanese universities to be more explicit regarding their recognition of the IB DP and the conditions for entry.

Reflecting the views of others, the principal of School C commented:

If we are going to put this much effort into the IB DP, then this should be rewarded within the Japanese system as quickly as possible in my opinion. So we see the University of Tokyo and Kyoto University starting admissions based on recommendation . . . but it is not clear whether this will include the IB DP. The universities are rather vague about the kinds of skills they are looking for, but they seem rather similar [to the DP]. It would be much better if the universities made a clear statement about whether they recognise the IB DP or not in the way that Okayama University has. (Principal, School C)

Principals and DP coordinators also expressed some concern about whether the Japanese university environment would properly foster the skills of students who have taken the Dual Language Diploma. Specifically, they felt that insufficient attention was being given to the teaching and learning environment that would best suit these students. A supplementary report by the research team, providing results from a survey of Japanese universities, will explore these important issues further and document the initial impact of the IB 200 Schools Project on Japanese university admissions policies.

Human Resources

As has been discussed in earlier sections of this chapter, securing suitable teaching staff is seen as a major challenge by schools; however, the Dual Language IB DP lowers this hurdle to some extent. Schools are trying as much as possible to use their current staff to support DP implementation rather than engaging in expensive and possibly disruptive mass hiring from outside the school. Nevertheless, many challenges still remain. We found that in most schools there are only one or two staff members who feel that they are able to teach in English. Subsequently, the subject area specialism of these English-speaking teachers may understandably limit the range of subjects that schools will offer in English.

The use of teachers who do not have a Japanese teaching license was also an issue identified by some schools. These schools were concerned that the current system of issuing limited term licenses for foreign nationals will not be attractive to experienced IB teachers from overseas. Senior management also expressed apprehension that Japanese teacher licensing requirements would ensure that foreign staff are constrained to short contracts, thus resulting in different working conditions to Japanese colleagues, such as having no chance to become tenured members of the school.

Other School Enablers

Natural alignments between the IB DP and pre-existing activities were identified

a number of times by schools as assisting programme implementation. For instance, one school had already been carrying out a personal research project, which has similarities with the DP Extended Essay. Furthermore, volunteer activities, similar to CAS, and discussion-based lessons, close in nature to TOK, were also common among the case study schools. Some of these activities were also initiated by schools as problem-based learning and English-mediated lessons. The fact that IB's pedagogical approaches were not totally unfamiliar to the schools was reported as making it easier to implement the Dual Language IB DP. Moreover, as mentioned previously, having a strong existing international section, English department, or English programme is a strong enabler for schools. The presence of an international or English section often means that schools have sufficient human resources in terms of English-speaking teachers, considerable numbers of returnees and non-Japanese students, and administrative staff who are ready to take on the IB DP.

An apparent further enabler for the Dual Language Diploma concerns a school's structure. In four of the five case study schools, there were combined lower and upper secondary schools. Having an attached lower secondary school provides opportunities for integrating preparatory courses for the IB DP in terms of building student English-language skills as well as critical thinking skills. In this way, schools can build toward the Diploma Programme from lower school levels.

However, while reform efforts in Japan are pushing for combined lower and

upper secondary schools, it is still rare for public schools to have integrated secondary schools. Subsequently, among public schools, it can be difficult to recruit students for the Diploma as this occurs at the same point when entrance examinations for upper secondary schools take place. An exception to this was our fifth case study school, which is upper secondary school only, but is idiosyncratic in that it has a very strong international school profile. The school only accepts students who have sufficient command of the English language to take English-taught courses, and the student body includes many returnees and foreign residents. As a result, there is a ready-made student body for the Dual Language Diploma.

A final major enabler is the role of the DP coordinator in each school, which cannot be overstated. All five case study schools have highly motivated and committed DP coordinators driving implementation ahead at their schools. The DP coordinators played a key role in gaining support for IB implementation in the schools, which included educating and inspiring staff about the IB programme. It is interesting to observe that the DP coordinators appeared to have been assigned due to their English-language communication skills and international outlook. Four out of five of the DP coordinators we interviewed had lived in English-speaking countries or had been abroad for study or in-service teacher training purposes. The fifth coordinator was originally from an English-speaking country.

Summary

In this chapter, we have explored key questions relating to implementation of the Dual Language IB DP. First of all we investigated the motivations of the Japanese government, MEXT as well as other ministries, and key business interests in pushing forward the IB 200 Schools Project. Our interviews with key stakeholders and a reading of documentary sources showed how a strong push to implement the IB DP came initially from the business community, which sees the IB DP curriculum as an ideal pedagogical tool to nurture Japanese who can act as global *jinzai* in the future. We also found strong support from MEXT as it the IB DP curriculum is seen to fit well with the Ministry's goals of fostering *ikiru chikara* (a zest for living) and developing in young people high-level critical thinking skills, learner autonomy including the ability to identify and investigate problems, and international mindedness.

Our school visits and interviews with main stakeholders thereby allowed us gain richer insights into the implementation process. The data illustrated how schools that have come forward to become candidate schools are especially well positioned to do so, but even then, the process involves particular commitment from senior management, the IB coordinator, and the rest of the teaching staff. For three schools, the establishment of the Dual Language Diploma was a necessary condition for moving ahead to become a candidate school. Even with incredible commitment and dedication from management and key staff, the authorization process was regarded as arduous. The costs involved in meeting IBO requirements was also talked about at length and there were calls for more

support from MEXT. Alignment of the National Curriculum and the IB Curriculum also loomed large in our discussions with schools. To ensure that students and teachers are not overburdened, it was felt that both MEXT and IBO needed to be flexible in this alignment process.

In conclusion then, this chapter covered the motivations behind the introduction of a Dual language IB Diploma into Japanese secondary schools and explored several contextual factors influencing implementation that touch upon administrative, cultural as well as structural issues shaped by the characteristics of the Japanese schooling system.

In the following chapter, we move on to the baseline survey and report results from three schools.

Chapter Five

Baseline Data on Expectations and Competencies

Baseline Indicators

As has been discussed, there has been growing attention paid to the IB Diploma Programme (DP) in Japan in recent years as industry, policy makers, and educators pay attention to and make demands regarding the nurturing of 21st century skills and competencies⁷. We outlined in Chapter Two how various ministries, sometimes alongside business stakeholders, articulated Japanese versions of these 21st century skills and competencies in the form of *ikiru chikara*, *shakaijin kisoryoku*, *ningen-ryoku*, *shūshoku kisoryoku*, and *gakushi-ryoku*. We have argued that there are similarities between these indigenously generated ideas and some aspects of the IB Learner Profile, although there are also some fundamental differences. In particular, one difference is that the Japanese competencies have been developed by different stakeholders for specific ends, and they lack the lifetime learner vision of the Learner Profile, with the possible exception of the broad idea of *ikiru chikara*.

In order to measure the impact of the Dual Language DP, it is necessary to create a baseline to understand the skills, competencies, expectations, and attributes nurtured by the present Course of Studies at the upper secondary

⁷ Please note that what we refer to as ‘competencies’ are in fact a combination of competencies, skills, and attitudes. Researchers in education have yet to come to a consensus about what overarching name to give these kinds of attributes, but we chose to follow the suggestions of Duckworth and Yeager (2015) and use the terminology that is most recognizable for the audience—in this case, ‘competency’.

level in Japanese schools. At the same time, we need to establish whether and to what extent those students who choose to take the Dual Language DP are achieving these competencies as compared to their peers who stay with the regular National Curriculum at the upper secondary level. As a result of collecting these kinds of data from both cohorts, we are in a better position to measure impact in the future.

Key Research Questions

With the above goals in mind, a key research question concerning the development of baseline data and performance measurement was as follows:

Within the cultural context of Japanese secondary education, what are appropriate data sources and instruments to assess and monitor student outcomes attributable to the Dual Language IB Diploma Programme?

A sub-question question was: **Using these instruments, what are the pre-Dual Language DP students' academic and non-academic characteristics, including those representative indicators included in indigenously generated ideas of skills and competencies and the IB Learner Profile?**

Finally, in a Confucian heritage country like Japan, we hypothesized that parental impressions and choices would be strongly reflected in individual students' decisions to take or not take the Dual Language DP. As a result, in this study we gave additional consideration to establishing baseline descriptions of parental understanding of and expectations for the Dual Language DP to

address the following questions:

What are parents' concerns and expectations about their children taking the IB Diploma Programme? What value do parents place on the pedagogy of the programme and the Diploma as university entrance certification? Understanding parents' sensitivities now could help future research to identify barriers to entry for Japanese parents considering enrolling their children in the programme.

With these research questions in mind, we set out to develop baseline indicators that would reflect not only the skills outlined in the IB Learner Profile, but also those indigenously generated skills and competency sets that are now demanded of learners in Japan.

Baseline Survey Item Development

To decide what should be included in the baseline indicators, we considered the various competencies, skills, and attitudes articulated by *ikiru chikara*, *shakaijin kisoryoku*, and *gakushi-ryoku* as well as the attributes of the IB Learner Profile and its related concept of international mindedness. As for the Learner Profile, it states that IB learners strive to be *inquirers*, *knowledgeable*, *thinkers*, *communicators*, *principled*, *open-minded*, *caring*, *risk-takers*, *balanced*, and *reflective* (IBO, 2006). Following the KJ method, a group brainstorming technique used to establish consensus about priorities (Kawakita, 1975; Scupin, 1997), we narrowed down the competencies to be included in the baseline assessment. The five members of the research team, all bilingual in English and

Japanese, compared and contrasted the components of the Japanese competencies and Learner Profile attributes, considering both their content and their temporal focus. For example, *ikiru chikara*, like the Learner Profile, speaks to competencies that are in constant development over one's lifetime, which is in contrast to other competencies that students are expected to master during high school. By drawing on relevant literature and using the KJ method, we developed survey items intended to assess students' expectations of developing each of these competencies during high school. The resulting items can be seen in Question 2 of both the student survey (Table 5.1) and the parent survey (Appendix B).

As has been noted, the items were developed to represent the series of competencies derived from both the Learner Profile and the Japanese competency clusters. Our aim was to formulate the questions in such a way that they would be easily understandable not only for students in the IB programme but also for non-IB students. The questionnaires were administered in Japanese. Responses to each question were on a five-point Likert scale, unless indicated otherwise. The items developed to ask about expectations of upper secondary education are as follows.

Table 5.1. Survey items regarding students' expectations of high school

Question 2. What are your expectations of what high school life will teach you regarding the following items?

1. I have absolutely no expectations 2. I don't really have any expectations 3. I could not say either way
4. I do have some expectations 5. I have high expectations

(1) Deepening my knowledge and understanding of topics that interest me.

- (2) Gaining a variety of knowledge about humans, society, and nature.
- (3) Being guided to think about the structure of social problems and ways to solve them.
- (4) Improving my skills to communicate with others.
- (5) Learning how to act according to my own conscience as well as social norms.
- (6) Gaining an understanding of how, depending on the individual or the society, ways of thinking and culture may differ.
- (7) Learning to be considerate towards others.
- (8) Gaining a sense of myself as somebody who takes on challenges.
- (9) Learning how to effectively make use of my own abilities and talents.
- (10) Becoming the kind of person who can reflect on my actions and utilise what I have learned in the future.
- (11) Acquiring the ability to problem solve.
- (12) Acquiring the ability to take the initiative and act on things myself.
- (13) Acquiring the skill of self-control.
- (14) Acquiring skills that enable me to handle data and utilise information.
- (15) Acquiring teamworking skills.
- (16) Acquiring leadership skills.
- (17) Gaining knowledge about the Japanese language (modern Japanese, classic Japanese, etc.)
- (18) Gaining knowledge about social studies (history, geography, civics, etc.)
- (19) Gaining knowledge of mathematics
- (20) Gaining knowledge of science (physics, chemistry, biology, Earth science, etc.)
- (21) Gaining knowledge of foreign languages (English, etc.)
- (22) Gaining knowledge of other subjects (arts, physical education, and specialised subjects)
- (23) Becoming more internationally minded.
- (24) Gaining all-round proficiency in English (including English conversation skills)
- (25) Gaining the kinds of academic abilities that will help me enter my target university.

The items in Question 2 were designed to discern the expectations of students with regard to the last two years of their secondary education. We predicted that some differences would be found between IB and non-IB students at the point that they start their respective programmes. These indicators will be used to compare student competencies for each cohort after they finish their respective programmes in a way that allows consideration for each cohort's starting point.

In order to discern the learning outcomes of the Dual Language DP, we needed to think about expected outcomes for this particular programme at the entry and exit points. It is not sufficient simply to compare the test scores of IB and non-IB students, as the Dual Language DP is very different from the regular upper secondary programme in Japanese schools. For this reason, two groups of assessment items were prepared. Question 5⁸ concerns attitudes and abilities and consists of 10 sub-items (Table 5.2).

Table 5.2. Survey items regarding students' attitudes towards school

<p>Question 5. To what extent do the following mindsets, attributes, and situations reflect your situation?</p> <p>1. It in no way reflects my situation at all 2. It does not really reflect my situation 3. I could not say either way 4. Yes, to some extent this is accurate 5. Yes, this describes me exactly</p> <p>(1) I enjoy going to school. (2) I enjoy studying at school. (3) I am satisfied with school. (4) I am internationally minded. (5) I am able to utilise English effectively. (6) I am able to make use of numerical and statistical knowledge effectively. (7) I am able to make use of information and communication technology (or ICT) effectively. (8) I am good at the arts subjects (Japanese language and social studies, etc.). (9) I am good at science subjects (math and science, etc.). (10) I am thinking of studying overseas.</p>

⁸ The reader will note that throughout this discussion of survey design and results, the survey questions are not presented in the same order as they were presented to students; for example, our discussion has just skipped from survey Question 2 to survey Question 5. This is an intentional decision based on an attempt to present the questions in an order that is most logical for a research report. The complete survey, presented in the same format and order in which it was presented to students (except as an English translation), can be found in Appendix A.

Question 7 is also concerned with attitudes and skills but focuses on those that emerged out of the KJ competency discussion surrounding the three Japanese competency clusters and the attributes described in the IB Learner Profile.

Here, 33 attitudes and skills were measured (Table 5.3).

Table 5.3. Survey items regarding students' academic skills and approaches

<p>Question 7. How well do the following attitudes and situations describe you? 1. It does not describe me at all 2. It does not really describe me 3. I could not say either way 4. It describes me to some extent 5. It describes me very well</p> <p>(1) When faced with something I do not know, I frequently ask questions and look things up. (2) I often think about what kind of person I am. (3) I often study about society. (4) I often study about nature and the environment. (5) I have developed the habit of studying things that I am interested in regardless of whether they are related to school work or not. (6) When a problem occurs, I try and understand the reason why. (7) I think about what I can do to solve a problem. (8) When a problem occurs, I make an effort to solve it by myself. (9) I am really able to understand how others feel and think. (10) I am able to clearly express what I feel and think. (11) I often invite others to do something with me. (12) I am able to work well in a team in collaboration with others. (13) In a team, I am able to take the initiative and work out what role I should take on. (14) I am able to set goals and act in order to achieve them. (15) I am able to indicate group goals and get team members to act effectively. (16) I observe school rules and those of society. (17) I have a conscience and rules that guide my behaviour. (18) I am able to take responsibility for my own behaviour. (19) I understand that others may hold different opinions to me. (20) I understand that there are various values and cultures in the world. (21) I often offer my help when someone needs assistance. (22) I always challenge myself to try something new. (23) I always try to produce something original. (24) I am able to utilise my own abilities effectively. (25) I try to keep myself in good health. (26) I try to keep myself fit and strong. (27) I am able to make plans and move things forward to reach these goals. (28) I am aware of my rights and responsibilities as a member of school and wider society. (29) I engage actively to try and make things better at school and in wider society. (30) I am able to adjust to changes in the surrounding environment. (31) Even when I experience stress, I am able to relax and stay positive.</p>
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|---|
| <p>(32) I often consider the appropriateness of my actions and behaviour.</p> <p>(33) I always make efforts to improve my attitude and behaviour.</p> |
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Question 8 employs 12 sub-items from the Kusumi-Hirayama scale developed by Kusumi and Hirayama (2013), which are oriented around critical thinking and related constructs. Critical thinking is at the core of the IB pedagogy and is reflected in many items in the Japanese competency clusters as well. Students' Kusumi-Hirayama scores at entry point will be compared with their skills in critical thinking upon completion of their programmes (Table 5.3).

Table 5.4. Survey items regarding critical thinking and related skills, taken from the Kusumi-Hirayama scale

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|---|
| <p>Question 8. How well do the following statements describe your attitude to things?
 1. It does not describe me at all 2. It does not really describe me 3. I could not say either way 4. It describes me to some extent 5. It describes me very well</p> <p>(1) I try to grasp precisely the fundamental points of an argument and the definitions of key terms.</p> <p>(2) I try to give a logical explanation so that everyone can understand.</p> <p>(3) I try to summarise the ideas of others in my own words.</p> <p>(4) I try to learn many things by working with others who have a variety of ideas.</p> <p>(5) I plan to continue learning new things all my life.</p> <p>(6) I would like to learn about many different cultures.</p> <p>(7) I try to make decisions fairly.</p> <p>(8) I try to be objective when I have to make a decision about something.</p> <p>(9) I try to examine issues from multiple perspectives.</p> <p>(10) When making a decision, I think deeply about whether there is accurate evidence or not on which to base it.</p> <p>(11) When making a judgement about something, I search for as many facts and as much proof as possible.</p> <p>(12) I try to act based on clear evidence.</p> |
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Additional questions sought data about the characteristics of the respondents, namely gender and student ID number (Question 1), desired future academic or professional path (Question 3), desired qualities of future working environments

(Question 4), and hypothetical circumstances that could make high school difficult (Question 6). Three questions focused on students' awareness of the IB, specifically knowledge of the IB (Question 9), source of that knowledge (Question 10), and opinions and questions students have about the IB (Question 11). These questions were used to examine the influences on expectations and outcomes regarding the Dual Language DP.

We also developed a questionnaire for parents, which was largely aligned with the student questionnaire. We inquired about the following aspects: respondents' children's gender and student ID number (Question 1), expectations for their children's learning regarding competencies (Question 2), desired future academic or professional path for their child (Question 3), desired qualities of the future working environments for their child (Question 4), hypothetical circumstances that would make their child's study at high school difficult (Question 5), knowledge of the IB and source of that knowledge (Question 6 and Question 7), and their opinions and questions about the IB (Question 8).

Methodology

Three candidate schools that were authorised to start the Dual Language IB Diploma in April 2015 were targeted for the questionnaire surveys. April is the beginning of the Japanese school year, and the student and parent questionnaires were administered during the first month of school. The targeted students in the IB sample were the first cohorts registered for the Dual

Language IB Diploma Programme in all three schools. Although the Diploma Programme takes place during grades 11 and 12, no grade 12 students were sampled because the first DP cohorts all started in grade 11. In two schools, due to the small numbers of first DP cohort students, we also surveyed grade 10 students, who would become the second cohort to participate in the DP. We expected that the difference between the grade 10 and grade 11 IB students would be relatively small because the survey was administered as a baseline measure. All other students in the same grade were requested to answer the same questionnaire to serve as a control group of this survey; those respondents became what we call the non-IB cohort.

The questionnaire for the students were generally distributed and collected in the classroom. In some cases, they were returned at a later time. A questionnaire for one parent of each student was distributed at the same time. The parent was asked to respond to the questionnaire and send it back to the school with his or her child. Parents were also requested not to discuss the questionnaire with their children and to submit the questionnaire in an enclosed envelope. One parent questionnaire was given to each student in the sample; accordingly, if there were any siblings in the sample, a parent would have received two questionnaires, one per child. We did not gather information on whether parent respondents were male or female.

In total, 1,335 questionnaire sheets for students were distributed, and the number of respondents was 1,218 (response rate: 91.2%). As for the parents,

the same number of questionnaire sheets were distributed, and 679 sheets were collected (response rate: 50.9%). Invalid responses led to missing values in the case of some variables. For that reason, only 625 pairs of parents and students were included in our analyses.

Research Findings

Results of the Student Questionnaire: Background and Orientation

The respondent characteristics for the student survey are presented below.

Please note that the designation of schools as A, B, and C in this chapter does not relate to the way we designated the five candidate school as A–E in the previous chapter.

Table 5.5. Characteristics of respondents by school and gender

School	IB			Non-IB			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School A (Year 10)	21 (17.5%)	19 (15.8%)	40 (33.3%)	26 (21.7%)	54 (45.0%)	80 (66.7%)	47 (39.2%)	73 (60.8%)	120 (100%)
School B (Year 10)	3 (0.9%)	3 (0.9%)	6 (1.9%)	175 (54.0%)	143 (44.1%)	318 (98.1%)	178 (54.9%)	146 (45.1%)	324 (100%)
School B (Year 11)	1 (0.4%)	9 (3.3%)	10 (3.6%)	124 (45.1%)	141 (51.3%)	265 (96.4%)	125 (45.5%)	150 (54.5%)	275 (100%)
School C (Year 11)	2 (0.4%)	13 (2.9%)	15 (3.3%)	260 (57.3%)	179 (39.4%)	439 (96.7%)	262 (57.7%)	192 (42.3%)	454 (100%)
Total	27 (2.3%)	44 (3.8%)	71 (6.1%)	585 (49.9%)	517 (44.1%)	1,102 (93.9%)	612 (52.2%)	561 (47.8%)	1,173 (100%)

In total, the number of the students who enrolled or would enrol in the Dual Language DP was quite small in these schools (6.1%), except in the case of School A (33.3%). The ratio of female IB students to male IB students was

relatively high, except in school A.⁹

Future Orientation and Post-secondary Plans

The post-secondary academic aspirations were very typical among non-IB students of these schools. The majority (86.5%) were planning to go to a domestic university (Table 5.6). The university plans of IB students, on the other hand, were more varied. In total, one-quarter of those students were thinking of attending overseas universities, as compared to less than 2% of the non-IB sample. Also notable was the difference in intended university types for the IB sample and the non-IB sample. Among the former, 92% of the students planned on attending a four-year university, with most of the rest of the students choosing 'Unknown/other', which might indicate that the student has not yet decided between a domestic and an overseas university; in other words, it may be even more than 92% of IB students who plan to attend a four-year university. However, of the non-IB students, 87% were planning to attend a four-year university of some kind, with the rest spread out among the other options, including attending two-year junior colleges and vocational schools as well as entering the workforce.

⁹ In addition to the DP, School A also offers the IB Middle Years Programme (MYP) in grades 7 through 10. The MYP is a whole-school programme, which means that students from School A in both our IB and non-IB samples were already enrolled in an earlier IB programme and possibly had been for several years. As MYP students, they may have responded to the survey in ways that reflect their previous IB exposure, including a closer alignment with the IB competencies than one might expect if they were encountering the Dual Language DP with no previous IB experience. Further, they may be more similar to each other than the students in the IB and non-IB samples from Schools B and C are to each other, at least in the ways that we measured in this study.

Table 5.6. Future orientation of the respondents

Question 3. What are you thinking of doing once you graduate from high school? Circle the item that best matches your plans.

	Domestic university	Overseas university	2-year college	Vocational school	Getting a job	Unknown /other	Total
IB	48 (65.8%)	19 (26.0%)	1 (1.4%)	1 (1.4%)	0 (0.0%)	4 (5.5%)	73
Non-IB	940 (86.5%)	20 (1.8%)	4 (0.4%)	25 (2.3%)	8 (0.7%)	90 (8.3%)	1087
Total	988 (85.2%)	39 (3.4%)	5 (0.4%)	26 (2.2%)	8 (0.7%)	94 (8.1%)	1160

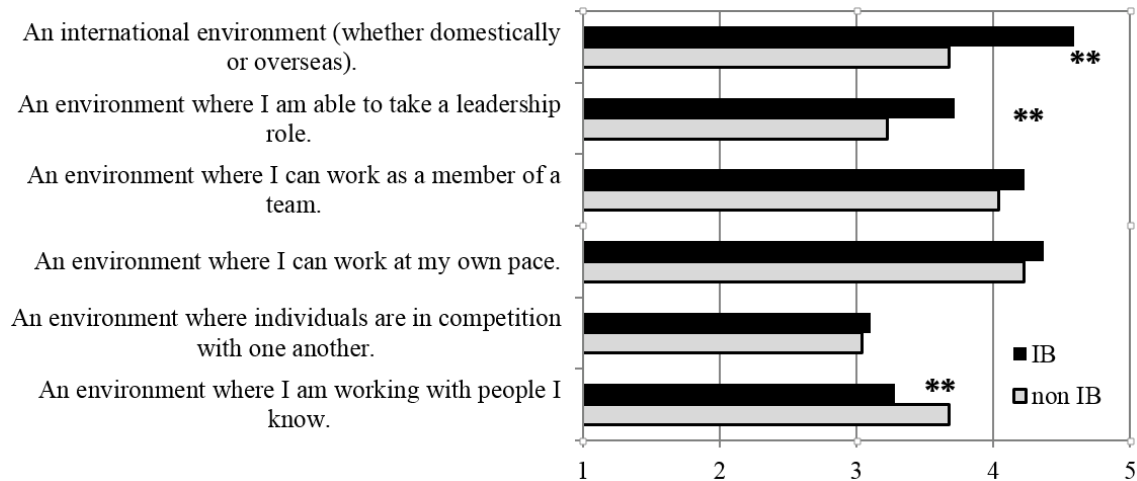
We also asked about the type of working environment students would like to be in after graduation from higher education and compared the group means for IB and non-IB students. Group comparisons were tested for significance using the Mann-Whitney U test statistic. Mann-Whitney U test is a nonparametric test to compare differences between the two independent groups (IB and non-IB). Given the data for this study, an assumption made is that the values have a non-normal distribution. The results are shown in Figure 5.1¹⁰.

The IB students were clearly more inclined towards an international environment and an environment where they are able to take leadership roles in comparison with the non-IB students. On the other side, the non-IB students were more likely to prefer an environment involving people they are familiar with. Neither IB nor non-IB students showed a particular inclination towards or against a competitive work environment.

¹⁰ For Figure 5.1 and the ones like it that follow, items have been sorted by mean difference, such that the items with the highest mean differences in the direction of the IB cohort appear first. It should also be noted that for each bar chart presented in this section, a corresponding table can be found in Appendix C.

Figure 5.1. The type of working environments students hope for in the future

Question 4. To what extent in the future do you desire to work in the following kinds of environments? 1. Absolutely no desire at all 2. No particular desire 3. I could not say either way 4. I have some desire 5. I have a very strong desire



Note: Mean differences marked with ** are significant at the $p < .01$ level.

Knowledge of and Information Sources on the IB

No matter which programme they were enrolled in, the majority of students had at least some awareness of the IB. As expected, detailed knowledge about the IB was higher among IB students and soon-to-be IB students than it was among their non-IB counterparts. According to the schools, information about the Dual Language DP is shared during regular parent seminars and is also made available through brochures and the schools' websites.

Table 5.7. Knowledge about the IB

Question 9. How much do you know about the International Baccalaureate (IB)?

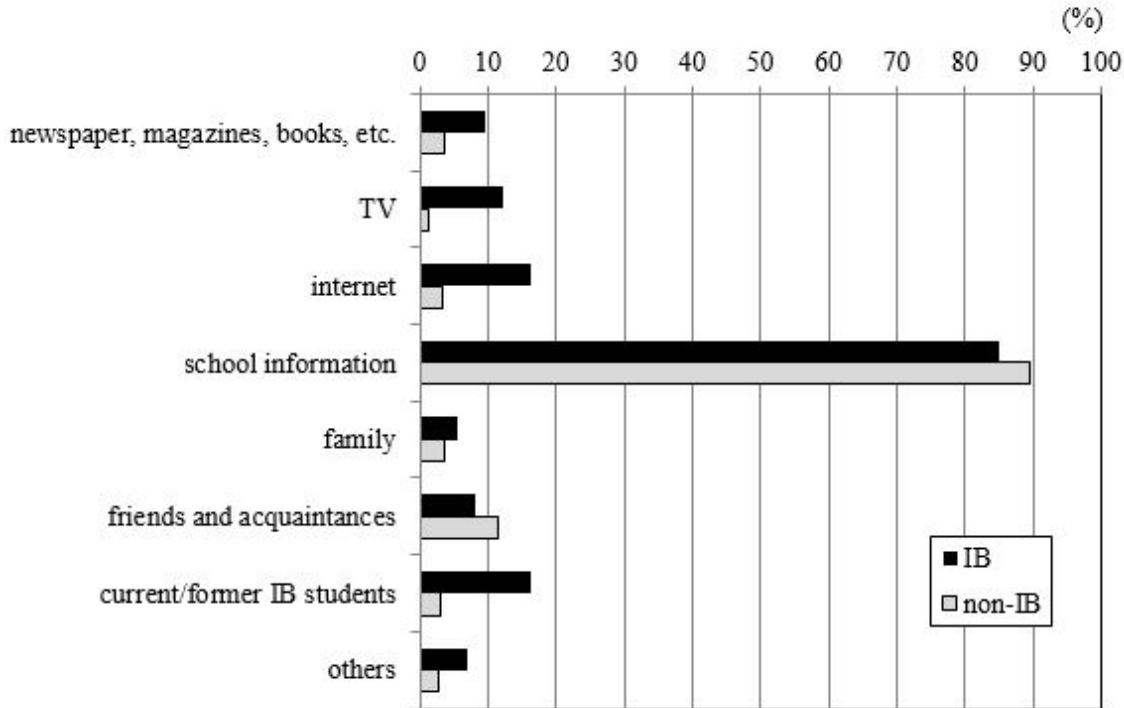
	I don't know about the IB at all	I have heard of the name	I know about the content of the IB	Total
IB students	0 (0.0%)	15 (20.5%)	58 (79.5%)	73 (100%)
Non-IB students	123 (11.1%)	708 (63.8%)	278 (25.1%)	1,109 (100%)
Total	123	723	336	1182

(10.4%)	(61.2%)	(28.4%)	(100%)
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For those who indicated some knowledge of the IB in Question 9, Question 10 was asked as a follow-up to find out students' main sources of information about the IB. Among those respondents, nearly all students, both in the IB and non-IB cohorts, identified information from their schools as their primary source (see Figure 5.2). IB students were quite a bit more likely than non-IB students to have gathered most of their knowledge about the IB from a source other than their schools.

Figure 5.2. Sources of information about the IB

Question 10. How did you learn about International Baccalaureate? Please circle the best answer.



Results of the Student Questionnaire: Expectations, Mindsets, and Self-perceptions

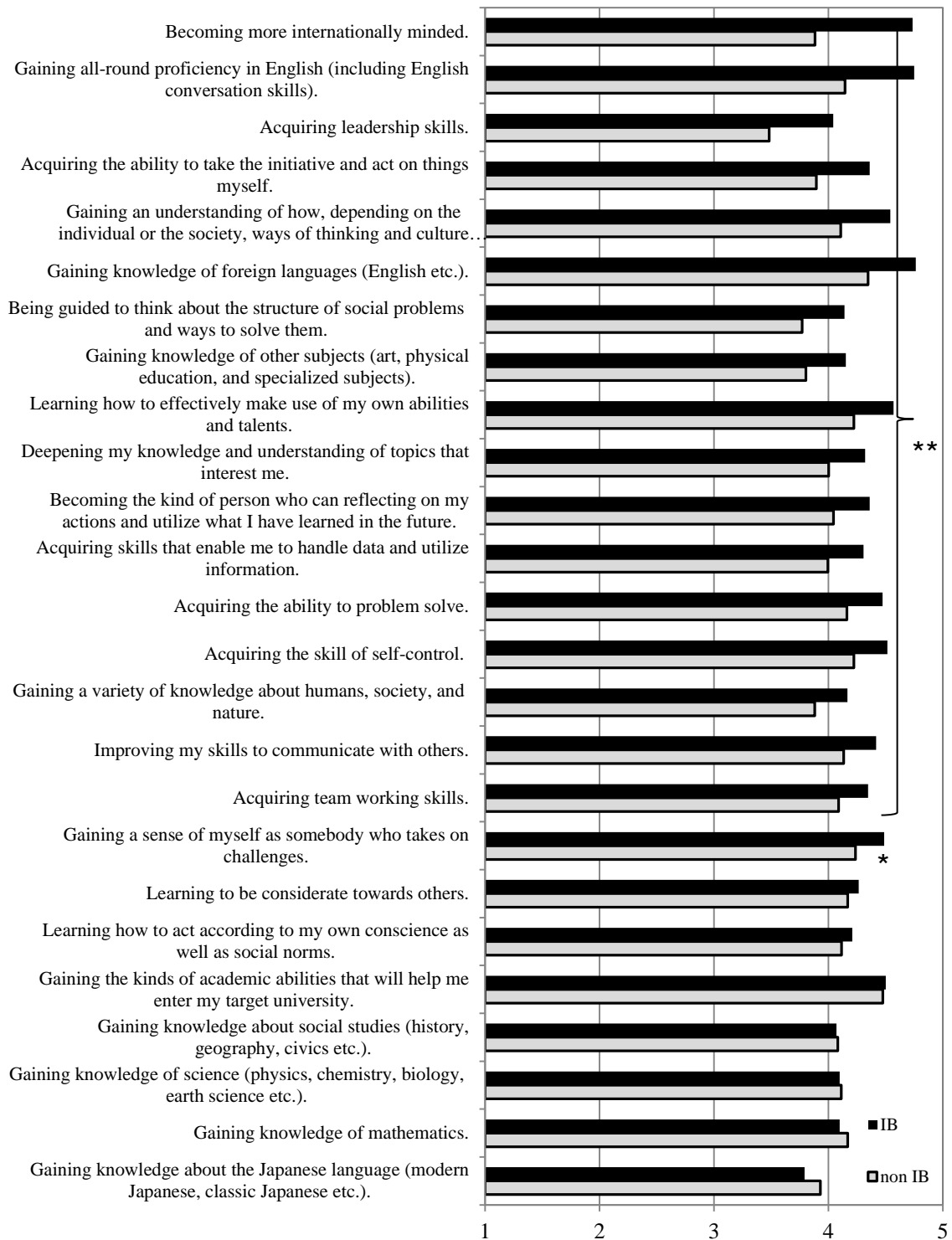
Expectations for Learning in the Dual Language DP or National Curriculum

In Question 2, students were asked the following: 'What are your expectations of what your high school life will teach you regarding the following items?' The results are presented in Figure 5.3. Overall, the IB students had higher expectations for their programme than the non-IB students had for theirs. The largest differences were seen in the items related to global competency, specifically 'Becoming more internationally minded' and 'Gaining all-round proficiency in English', as well as items related to leadership, represented by 'Acquiring leadership skills' and 'Acquiring the ability to take the initiative and act on things myself'.

Expectations about gaining knowledge in key subject areas were about equally high for both IB and non-IB students, with the exception of English; similarly, both groups reported about equal expectations for 'Gaining the kinds of academic abilities that will help me enter my target university'. Finally, it is interesting to see that IB students had higher than normal expectations about 'Gaining knowledge of other subjects (arts, physical education, and specialised subjects)'.

Figure 5.3. Students' expectations for their programmes

Question 2. What are your expectations of what high school life will teach you regarding the following items? 1. I have absolutely no expectations 2. I don't really have any expectations 3. I could not say either way 4. I do have some expectations 5. I have high expectations



Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level. Data, including full survey items, for this figure and subsequent figures can also be found in Appendix C.

Based on the traditional context in Japanese education, the non-IB students seemed, in comparison to their IB peers, to have lower expectations for those subjects and competencies that do not count toward university entrance (e.g., leadership, problem-solving, and self-reflection). This is noteworthy but not unexpected since it is a focus of the IB to produce well-rounded students whose knowledge and skills are not limited to the traditional *gakuryoku* subjects.

However, a comparison of morals ('Learning how to act according to my own conscience as well as social norms') and caring ('Learning to be considerate towards others') did not show significant differences between cohorts.

Given these trends, it can be concluded that the expectations of IB students were generally broader and more inclusive toward competencies than those of non-IB students, including aptitudes for English, international mindedness, and leadership. That said, these expectations can be expected to change over time. If the introduction of the Dual Language DP exerts an influence on the traditional schooling system in Japan, expectations of non-IB students are likely to shift. Moreover, once the first cohorts of IB students graduate and enter university successfully, the perception or appeal of the IB could change. Follow-up surveys might identify such systematic changes.

Mindsets and Self-perceptions

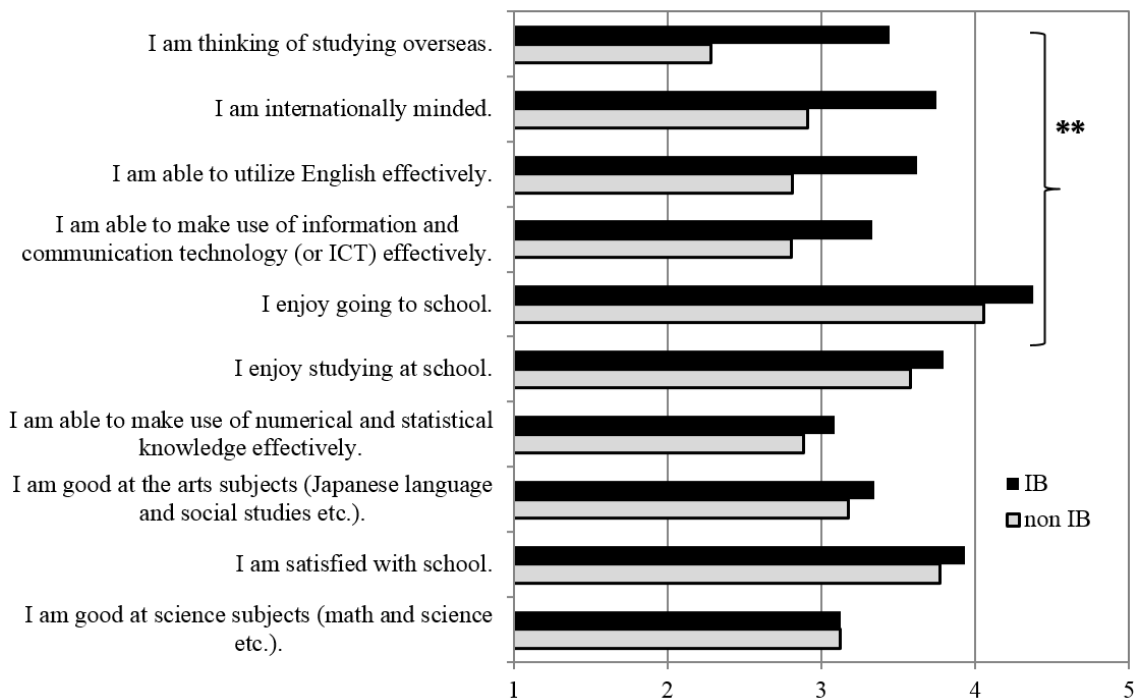
In another section of the survey, students were asked about educational mindsets and competencies, such as whether they enjoy studying at their schools and their present skills and knowledge of the main school subjects

(Figure 5.4). These items will be used as indicators of the educational outcomes of the Dual Language DP. Additional competencies will be discussed separately in the next section.

Again, the biggest differences between IB and non-IB students are seen in those items related to global competency, such as ‘I am thinking of studying overseas’ and ‘I am internationally minded’, as well as ICT skills, such as ‘I am able to make use of information and communication technology (or ICT) effectively’. Though the self-evaluation of their skills and knowledge on the major subjects are also slightly higher for IB students than for their non-IB peers, the differences are not statistically significant. Students with an aptitude for English appear to sign up for the Dual Language DP at particularly high rates, but the self-rated skills and knowledge in mathematics and science are more or less equal for both groups.

Figure 5.4. Educational mindsets and competencies

Question 5. To what extent do the following mindsets, attributes, and situations reflect your situation? 1. It in no way reflects my situation at all 2. It does not really reflect my situation 3. I could not say either way 4. Yes, to some extent this is accurate 5. Yes, this describes me exactly

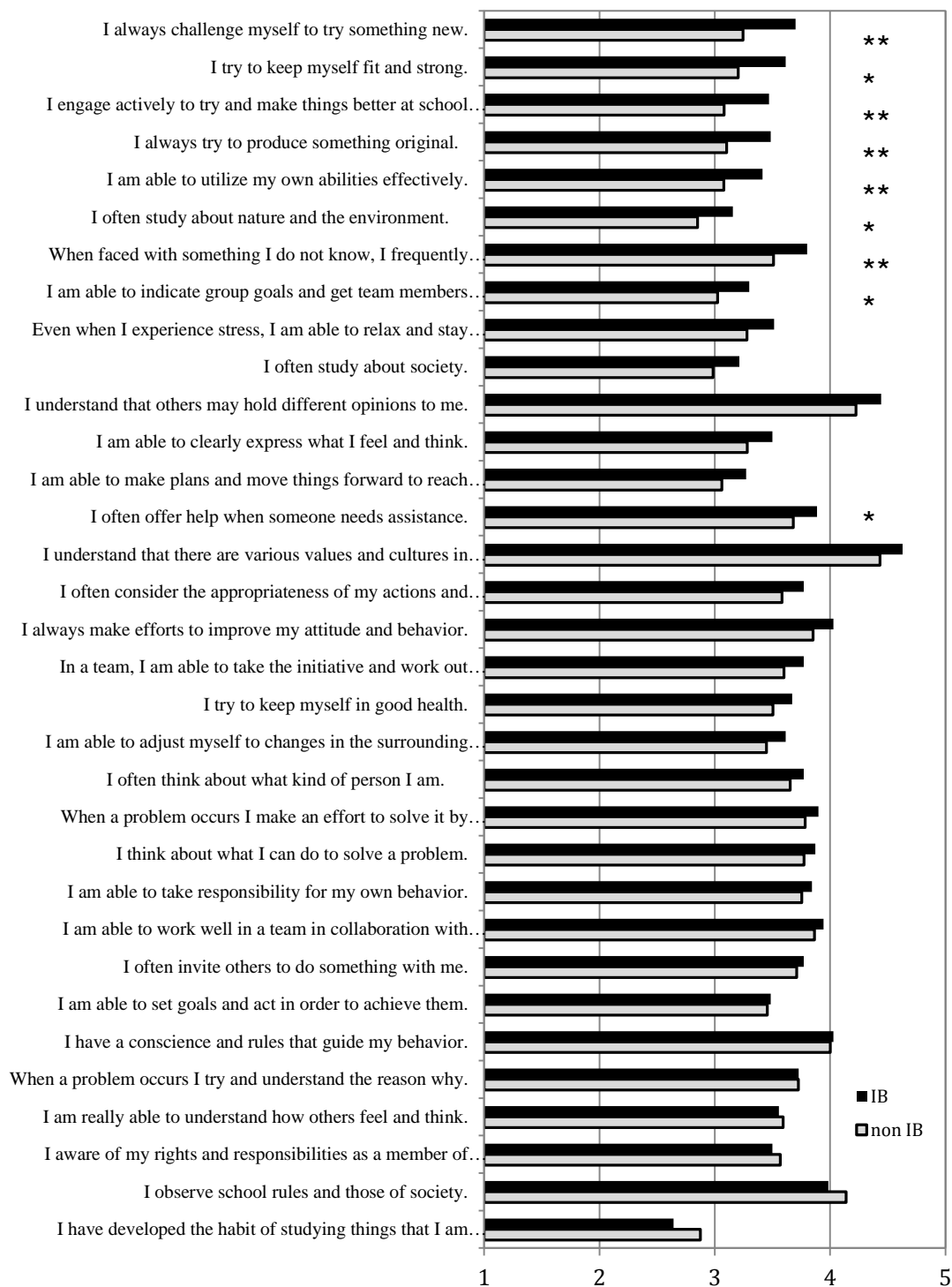


Note: Mean differences marked with ** are significant at the $p < .01$ level.

Figure 5.5 shows students' self-assessments of their present skills relating to the newer concepts of competencies, above and beyond the traditional competencies shown above. IB students' self-ratings are noticeably higher than those of their non-IB counterparts on many of the items; this suggests that IB students may be more academically inclined in general than their non-IB peers, which gives us insight into what kinds of students choose to enrol in the Dual Language DP. For example, 'I always challenge myself to try something new', and 'I always try to produce something original' showed relatively large gaps between the two cohorts.

Figure 5.5. Student self-perceptions of their own skills and competencies

Question 7. How well do the following attitudes and situations describe you? 1. It does not describe me at all 2. It does not really describe me 3. I could not say either way 4. It describes me to some extent 5. It describes me very well

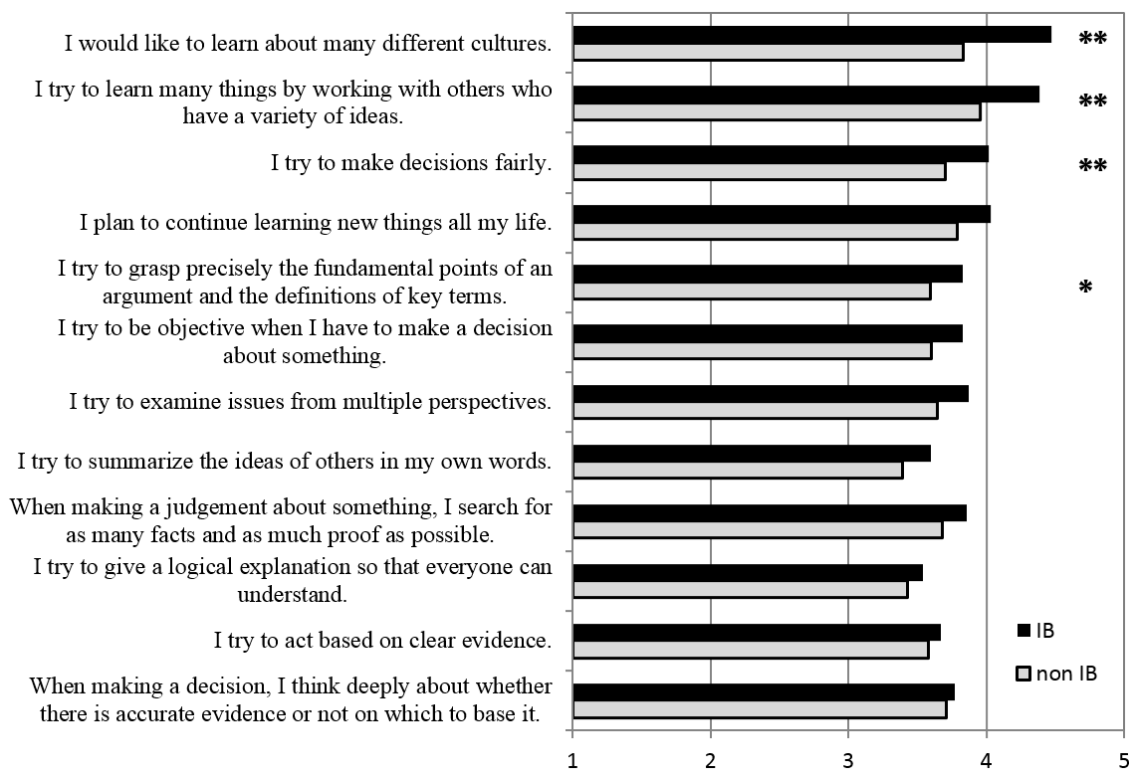


Note: Data, including full survey items, can also be found in Appendix C, Table 5.16. Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

In order to determine a baseline of higher-order thinking skills, an abridged scale of critical thinking and related concepts was employed (Kusumi & Hirayama, 2013; see Figure 5.6). The Kusumi-Hirayama scale in its original form consists of four factors: ‘awareness for logical thinking’, ‘inquiry-mind’, ‘objectiveness’, and ‘evidence based judgement’. In both an absolute and comparative sense, the IB students rated the following particularly highly: ‘I would like to learn about many different cultures’ and ‘I try to learn many things by working with others who have a variety of ideas’, both of which reflect an inquisitive spirit.

Figure 5.6. Critical thinking attitudes

Question 8. How well do the following statements describe your attitude to things? 1. It does not describe me at all 2. It does not really describe me 3. I could not say either way 4. It describes me to some extent 5. It describes me very well



Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

As observed in several other parts of the study, many of the major differences in self-reports between IB and non-IB students centered around global competencies, such as open-mindedness and critical thinking.

Potential Obstacles for Students

At present, with the Dual Language DP being newly established in these schools, we wanted to understand the obstacles that might prevent students from enrolling. These potential obstacles to enrolling in the Dual Language DP were considered hypothetically in Question 6: 'If any of the following were to occur, to what extent would they make high school difficult for you?' Each sub-item was designed to reflect either a perceived or a real change that might happen for a student accustomed to the standard National Curriculum who moves into the Dual Language DP. These real and perceived barriers were identified through personal communications with teachers and administrators, many of whom work at existing IB World Schools and are familiar with the DP and common student beliefs surrounding it¹¹.

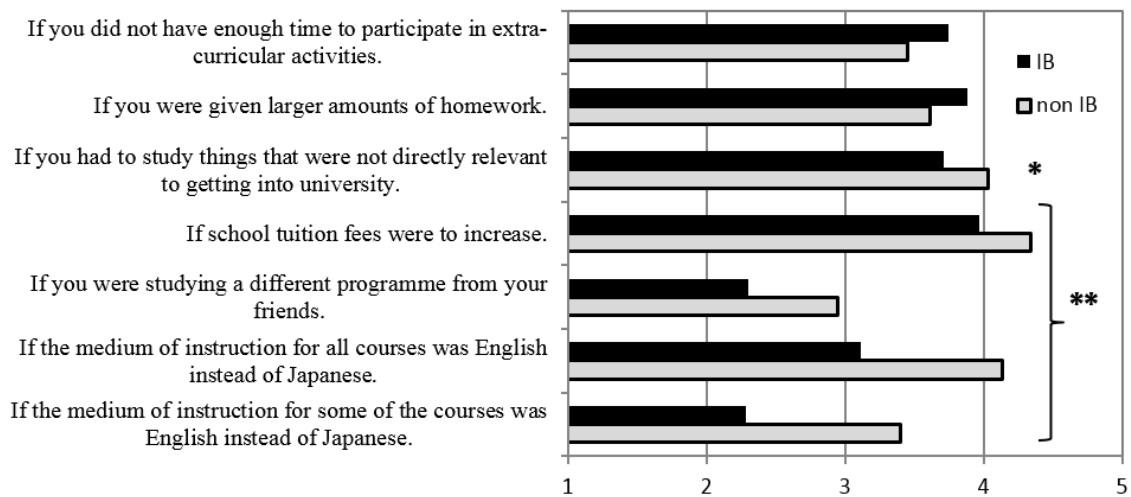
For both groups of students, 'If school tuition fees were to increase', 'If the

¹¹ It should be noted, however, that this survey question was worded in a hypothetical way. It did not ask students to estimate the likelihood of these eventualities occurring, nor did it link those eventualities with the Dual Language DP. Thus, students' responses only suggest possible barriers to entry, not their opinions of either the IB programme or the Japanese National Curriculum. The results of Question 5 of the parent survey, which is analogous to this question from the student survey, should be interpreted in the same way.

medium of instruction for all courses was English instead of Japanese', 'If you had to study things that were not directly relevant to getting into university', 'If you were given larger amounts of homework', and 'If you did not have enough time to participate in extracurricular activities' were all hypothetical obstacles (see Figure 5.7). In contrast, 'If you were studying a different programme from your friends' and 'If the medium of instruction for some of the courses was English instead of Japanese' were not seen as potentially causing the same level of difficulty, especially for IB students.

Figure 5.7. Student perceptions of potential academic obstacles

Question 6. If any of the following were to occur, to what extent would they make high school difficult for you? 1. No problem at all 2. Not so much of a problem 3. I could not say either way 4. It would be something of a problem 5. Things would be extremely difficult



Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

Of particular note is the item 'If the medium of instruction for all courses was English instead of Japanese'. Non-IB students indicated that this eventuality

would be something of a problem for them, which suggests that the Dual Language DP, as intended, could indeed reduce barriers for students as compared to the traditional DP, which would almost certainly be offered entirely in English within a Japanese context. Further, if we are to take these results as an indicator of why non-IB students decided against enrolling in the Diploma Programme, it would seem that trepidation about English-language coursework was one of the most influential factors in non-IB students' decisions to stay with the default National Curriculum, with separation from friends also playing a substantial role. Conversely, homework, extracurriculars, tuition, and relevance to Japanese university admission were less important factors in that decision—with the caveat that Japanese university admission may play a larger role than what is represented here if one were to examine only students who are planning to stay in Japan for their higher education.

Results of the Parent Questionnaire: Expectations and Desires

In the previous sections, we focused on a comparison of IB students and non-IB students. In this section, we examine differences between IB and non-IB parents. Only the responses of parents that could be matched to a daughter or son by the class and student ID were employed in the following analysis. The total number of responses is therefore slightly lower: 50 (IB) and 575 (non-IB). Most parent survey questions mirrored the student survey questions.

For the first analysis, we focused on the first 16 items in Question 2, regarding expectations of the students' programme of study (Table 5.8). In a comparison

between IB and non-IB parents, expectations were similar except for 'Deepening his/her knowledge and understanding of topics that interest him/her'. For this item, the expectations of non-IB parents were more modest compared to those of IB parents. As the reader might note, variability both within and between items for each group is quite low, but this is not necessarily unusual for a baseline survey. We would expect to see greater variation once both parent cohorts begin to see the effects of the Dual Language DP a few years into programme implementation, especially as compared to the National Curriculum.

Table 5.8. Expectations of competency and knowledge acquisition between parent groups

Question 2. What are your expectations for what high school life will teach your son or daughter regarding the following items? 1. I have absolutely no expectations 2. I don't really have any expectations 3. I could not say either way 4. I do have some expectations 5. I have high expectations

	IB parents	non-IB parents	sig.
Deepening his/her knowledge and understanding of topics that interest him/her.	4.58 (0.50)	4.35 (0.58)	*
Gaining a variety of knowledge about humans, society, and nature.	4.27 (0.62)	4.29 (0.53)	
Being guided to think about the structure of social problems and ways to solve them.	4.47 (0.59)	4.27 (0.63)	
Improving his/her skills to communicate with others.	4.56 (0.59)	4.52 (0.55)	
Learning how to act according to his/her own conscience as well as social norms.	4.56 (0.59)	4.49 (0.57)	
Gaining an understanding of how, depending on the individual or the society, ways of thinking and culture may differ.	4.58 (0.50)	4.39 (0.60)	
Learning to be considerate towards others.	4.64 (0.53)	4.68 (0.50)	
Gaining a sense of his/herself as somebody who takes on challenges.	4.64 (0.57)	4.61 (0.55)	
Learning how to effectively make use of his/her own abilities and talents.	4.41 (0.62)	4.45 (0.61)	
Becoming the kind of person who can reflect on his/her actions and utilise what he/she has learned in the future.	4.44 (0.59)	4.43 (0.60)	
Acquiring the ability to problem solve.	4.69 (0.47)	4.62 (0.51)	
Acquiring the ability to take the initiative and act on things his/herself.	4.42 (0.62)	4.36 (0.62)	
Acquiring the skill of self-control.	4.53 (0.50)	4.48 (0.54)	
Acquiring skills that enable him/her to handle data and utilise information.	4.36 (0.57)	4.24 (0.61)	
Acquiring teamworking skills.	4.36 (0.57)	4.35 (0.61)	
Acquiring leadership skills.	4.02 (0.81)	3.95 (0.72)	

Note: Standard deviations are reported in parentheses. Mean differences marked with * are significant at the $p < .05$ level.

As one might expect, the largest mean differences between parent groups in academic expectations were the IB parents' higher expectations for international mindedness and proficiency in English (Table 5.9). Interestingly, although IB and non-IB students had nearly equal expectations for 'Gaining the kinds of academic abilities that will help me enter my target university' (Figure 5.3), IB parents seemed less confident than non-IB parents about this item.

Table 5.9. Academic expectations between parent groups

Question 2. What are your expectations for what high school life will teach your son or daughter regarding the following items? 1. I have absolutely no expectations 2. I don't really have any expectations 3. I could not say either way 4. I do have some expectations 5. I have high expectations

	IB parents	non-IB parents	sig.
Gaining knowledge about the Japanese language (modern Japanese, classic Japanese, etc.).	4.09 (0.56)	4.09 (0.58)	
Gaining knowledge about social studies (history, geography, civics, etc.).	4.09 (0.56)	4.06 (0.59)	
Gaining knowledge of mathematics.	4.11 (0.57)	4.18 (0.65)	
Gaining knowledge of science (physics, chemistry, biology, Earth science, etc.).	4.07 (0.54)	4.12 (0.63)	
Gaining knowledge of foreign languages (English, etc.).	4.52 (0.55)	4.45 (0.63)	
Gaining knowledge of other subjects (art, physical education, and specialised subjects).	3.82 (0.61)	3.93 (0.61)	
Becoming more internationally minded.	4.60 (0.54)	4.21 (0.75)	**
Gaining all-round proficiency in English (including English conversation skills).	4.69 (0.51)	4.42 (0.67)	**
Gaining the kinds of academic abilities that will help him/her enter his/her target university.	4.24 (0.53)	4.59 (0.63)	*

Note: Standard deviations are reported in parentheses. Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

For the questions concerning future working environments (Table 5.10), parents in both cohorts tended to have quite similar desires for their children. There were, however, two exceptions. As one might predict, IB parents were more likely than non-IB parents to want their children to work in an international environment in the future. And in the opposite direction, non-IB parents valued working with familiar people more than IB parents did. These two items may be reflecting the same underlying hopes and expectations about global competency—which may also be a factor in students’ and parents’ choice to enrol in the Dual Language DP in the first place.

Table 5.10. Parent desires for students’ future work environments

Question 4. To what extent do you hope in the future your child will work in the following kinds of environments? 1. Absolutely no desire at all 2. No particular desire 3. I could not say either way 4. I have some desire 5. I have a very strong desire

	IB parents	non-IB parents	sig.
An environment where he/she is able to take a leadership role.	3.98 (0.79)	3.76 (0.82)	
An environment where he/she can work at his/her own pace.	4.04 (0.69)	4.10 (0.77)	
An international environment (whether domestically or overseas).	4.49 (0.66)	3.99 (0.82)	**
An environment where he/she can work as a member of a team.	3.83 (0.73)	4.00 (0.77)	
An environment where he/she can work with people he/she knows.	2.81 (0.71)	3.12 (0.75)	*
An environment where individuals are in competition with one another.	2.70 (0.83)	2.89 (0.80)	

Note: Standard deviations are reported in parentheses. Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

Finally, perceptions of potential obstacles were compared between the groups

(Table 5.11); specifically, participants were asked, ‘How difficult would it be for you if any of the following things were to occur while your child is in high school?’ Responses ranged from 1 (‘No problem at all’) to 5 (‘Things would be extremely difficult’). The highest scores for both parent cohorts were observed for ‘If school tuition fees were to increase’. However, IB parents saw this as less problematic than all other cohorts did, including both student cohorts (see Figure 5.7). This may be because they accept that the Dual Language DP is costly or because they are more willing or able to pay for the costs involved. In general, IB parents anticipated fewer problems with these hypothetical changes than non-IB parents did; for example, they were less concerned about academic material that might not be directly related to university qualifications. IB parents also did not perceive major potential problems related to English-language coursework, especially as compared to their non-IB counterparts.

Table 5.11 Parent perceptions of potential academic obstacles

Question 5. How difficult would it be for you if any of the following things were to occur while your child is in high school? 1. No problem at all. 2. It would not be so much of a problem. 3. I could not say either way 4. It would be something of a problem 5. Things would be extremely difficult

	IB parents	non-IB parents	sig.
If school tuition fees were to increase.	3.88 (1.01)	4.32 (0.86)	**
If your child were given larger amounts of homework.	2.78 (1.05)	2.62 (1.06)	
If your child had to study things that were not directly relevant to getting into university.	2.80 (0.98)	3.18 (0.99)	*
If your child were studying a different programme from his/her friends.	2.24 (0.85)	2.64 (0.88)	
If your child did not have enough time to participate in extracurricular activities.	3.31 (1.10)	3.15 (1.02)	
If the medium of instruction for some of the courses was English instead of Japanese.	1.94 (1.11)	2.52 (1.03)	**

If the medium of instruction for all courses was English instead of Japanese.	2.71 (1.32)	3.32 (1.25)	*
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Note: Standard deviations are reported in parentheses. Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

Limitations of This Aspect of the Research

As is the case for all research, this aspect of the study has certain limitations.

One notable limitation is that, unfortunately, we cannot be confident that all survey respondents fully understood the IB-related term *internationally minded* or interpreted it in the way that the IB defines it. An attempt was made to use universally understood terminology, but unfortunately, we cannot rule out the possibility of some confusion about that term in particular. If this framework is used again in the future, it may be prudent to use more specific wording, and possibly more survey items, to ensure that all respondents fully understand what is being asked.

As we mentioned briefly, the variance within groups for many of the survey items was quite low. Often, very low variance can be statistically problematic. However, the aim of this study was to establish a baseline for future programme implementation research; consequently, the analyses were largely descriptive and involved no hypothesis testing, which typically has larger ramifications. Additionally, one would not expect to see very large differences between and within groups at baseline, as strong opinions based on experience have yet to be formed. That said, one negative effect of the low variance, especially when combined with the large number of mean comparisons that we conducted, is

that there may be type 1 errors. For both of these reasons, we recommend caution when interpreting the statistical significance of our results.

Considering all the limitations, this study has a lot of potential for future research. We aim to administer similar questionnaires in two years' time, this time oriented towards outcomes rather than expectations, to see students' development over the course of the programme. This should give us a better indication of how IB education is impacting IB students' academic and non-academic outcomes. In addition, we plan to develop questionnaires for teachers to examine their pedagogical beliefs and practices.

Chapter Six

Summary of Results and Conclusions

The study we have presented in this report set out to understand the Dual Language IB DP implementation process and to create an instrument to assess the subsequent impact of this on a variety of student competencies linked to the IB Learner Profile and those identified by key stakeholders as desired outcomes of this new initiative. More concretely, it sought to offer an initial examination of the implementation of the Dual Language IB DP in Japanese secondary schools in order to identify processes and practices that are supporting and enabling candidate schools as well as to understand barriers and disablers. At the same time, we sought to create an instrument that establishes baseline data to inform on-going programme monitoring and summative evaluation activities.

Key Results from the Research

Implementation

The schools in our study that have stepped forward to become part of the IB 200 Schools Project were characterised by having a strong international focus, and some already placed an emphasis on English-language education. As a result, they had dedicated staff and motivated students who were ready to take on board the Diploma Programme. In addition, all schools have been actively innovating educationally with such initiatives as investigative learning, special English programmes, and international exchange. One school was already delivering the MYP, and another had considered introducing the IB DP in a

branch school overseas. Finally, all the schools embraced missions that aligned well with the IBO's emphasis on educating global citizens.

These schools, then, were well-placed to become candidate schools. Nevertheless, even these schools talked about the hard work involved in moving through Diploma candidacy and then heading towards IB authorisation. Some key challenges include recognizing the costs involved, much of which cannot be passed on to individual Diploma students; reading and understanding large amounts of documentation in English; securing teachers who are ready, able and willing to teach the Diploma Programme; re-vamping the educational environment, especially regarding ICT connectivity and an interactive teaching style; aligning the IB DP curriculum with the National Curriculum; aligning the IB exam period to the Japanese academic year; and securing enough Diploma students to ensure programme provision is sustainable. With a class size of 40 as the norm in Japan, senior management also need to manage human resources creatively to cover small class sizes associated with the IB DP.

While our candidate schools felt they were given support from MEXT and the IBO, this was deemed to be insufficient. Senior management generally, and IB DP coordinators in particular, would like more concrete help to meet the demands that they face. The schools had expected some of this practical help would come from the IB Liaison Committee, which had not occurred due to the role and focus of the committee. Much of the practical help that their schools

were benefiting from was given by IB consultants or pre-established IB World Schools in Japan. If the goal of 200 IB DP schools is to be met, practical support needs to be put in place and greater flexibility is needed on the part of both MEXT and the IBO.

Establishing Baseline Data

We explored recent Japanese articulations of key student competencies and from these established a number of competency clusters. We also examined the IB Learner Profile and other student competencies that reflect the concept of global *jinzai*, or global human resources, a key idea articulated by the government and business community. From these we developed an instrument to inform programme monitoring and summative evaluation activities. To establish baseline data we administered the instrument with IB DP and non-IB DP track students in three schools that had recently gained authorisation to deliver the Dual Language Diploma Programme. We aim to administer the questionnaire at the exit point of senior high school with both groups of students to again compare differences between the two groups. Results from the baseline administering of the survey suggest students enrolling in the Dual Language DP are well aligned to the nature of the Diploma Programme. For instance, IB students had higher expectations than their non-IB counterparts regarding 'Becoming more internationally minded' and 'Gaining all-round proficiency in English', 'Acquiring the ability to solve problems', 'Acquiring leadership skills' and 'Acquiring the ability to take the initiative and act on things myself'. IB track students were also more inclined towards an international

environment and an environment where they are able to take leadership roles in comparison with non-IB students.

Conclusion

At that launch of the IB 200 Schools Project, there were only 14 schools offering the IB DP, and all but 5 of these were international schools sitting outside the mainstream educational system in Japan. At the time of writing this report there were 26 schools, of which almost half (12) are Article One schools. Clearly many more schools are needed to realise the objective of establishing 200 schools offering the IB DP in Japan by 2018. Nevertheless, in the context of an education system that has relied not only on a National Curriculum framework up to the end of upper secondary, but also allowed only fairly minor innovations in how this has been delivered, the progress that has been made is significant. It is undoubtedly due to the hard work and dedication of key stakeholders and project proponents who have worked tirelessly. This includes officials at MEXT, senior management and teachers in schools, members of the IB (Asia Pacific and IB Regional Council especially), members of the Board of Education in several prefectures, and key academics at the university level.

From our visits to schools, it is clear that the establishment of the Dual Language Diploma was a necessary condition to have even the most international and innovative schools to commit themselves to becoming candidate schools. Few schools have the human resources—administrators, teachers, and students—to offer an all-English diploma. The Dual Language

Diploma means that the programme can be largely delivered with current teaching staff, and there is a wider pool of students who will be able to cope with the curriculum content, making the IB 200 Schools Project somewhat more realisable.

When considering the challenges that our five candidate schools have encountered, it is clear that for the goal of 200 schools to be met, more support will need to be offered. Funding and alignment issues loom particularly large. Schools do not want to pass the costs of the Diploma on to individual students and their families; hence, there is a need to provide schools with more support. There is one independent initiative that has been launched by a non-profit organization (NPO) to help students cover some of the costs connected with examination, but this alone will be not enough. The launching of the Super Global High School project, which provided generous funding for curriculum innovation, left some key school stakeholders wondering why this was not at least matched for the IB 200 Schools Project. Participants explained that IB DP implementation requires a much more sweeping change to school environment, the teaching style, and the management of assessment and examinations. In addition, the IB DP is a long-term project that has to be sustainable across many years.

Our research suggests that some important steps have been made in flexibly counting aspects of IB Diploma curricula as equivalent to required components of the National Curriculum. Nevertheless, the situation needs to be monitored to

ensure that the workload for students and teachers is not excessive. In addition, allowing students to be registered for the Diploma towards the end of Year 10 to give schools time to offer the curriculum for a November exam schedule would ease the pressure of the two DP years considerably. The time pressures are particularly acute for public schools as it is difficult to ask students and teachers to come in for extra study during weekends and holidays. Private schools routinely hold extra classes on a Saturday and over the summer holidays, which gives them greater flexibility.

The much criticised *yutori kyōiku* policy was introduced into schools in the early 1990s in order to give school students ‘room to breathe’. It is generally agreed that the idea was good, but that there were mistakes in its implementation. In particular, the entrance examination system was not overhauled to reflect changes in teaching and learning content and methods. There is a danger of this happening again if there is too much emphasis on the final IB Diploma score at the expense of wider learning benefits. The IB DP places emphasis on breadth and depth of learning as well as cognitive and non-cognitive learning and growth. This is its attraction to the Japanese government and the business community. Nevertheless, overloading students with too much challenging content too quickly in order to fulfil both IB DP and National Curriculum requirements would be detrimental to teaching and learning. Too much emphasis on final scores may mean that schools and students are forced to cut corners with the DP Core components (CAS – Community, Action, Service; Extended Essay, and ToK – Theory of Knowledge) in order to secure good

scores in subject areas. It is incumbent of MEXT and the IBO to ensure that the timetable and demands of the IB DP plus National Curriculum really do give students 'room to grow' as global citizens.

The review of policy documents and transcripts from key stakeholder interviews highlights the importance of the IB Schools initiative within the context of national policy aiming to secure the country's economic competitiveness. The IB 200 Schools Project has the powerful backing of the business community, and this undoubtedly helps explain why it has survived a change of administration and continues to be pushed forward despite the enormity of the task. This backing will continue to be important if the goal of 200 IB schools is to be realised. Nevertheless, we are also reassured that key stakeholders are very much moving beyond a narrow mission of creating global *jinzai* to a broader one of creating global citizens. The IB DP is clearly being embraced as an educational curriculum that fosters motivated and successful learners.

Professor Beverley Yamamoto, Principal Investigator

IB Implementation and Impact Research Project

March 29, 2016

Appendices

Appendix A. Baseline student survey, English translation

Question 1. Personal information

Sex: Male Female

Grade____, Class____, Number____ or Student Number

Question 2. What are your expectations of what high school life will teach you regarding the following items?

1. I have absolutely no expectations
 2. I don't really have any expectations
 3. I could not say either way
 4. I do have some expectations
 5. I have high expectations
-
- (1) Deepening my knowledge and understanding of topics that interest me.
 - (2) Gaining a variety of knowledge about humans, society, and nature.
 - (3) Being guided to think about the structure of social problems and ways to solve them.
 - (4) Improving my skills to communicate with others.
 - (5) Learning how to act according to my own conscience as well as social norms.
 - (6) Gaining an understanding of how, depending on the individual or the society, ways of thinking and culture may differ.
 - (7) Learning to be considerate towards others.
 - (8) Gaining a sense of myself as somebody who takes on challenges.
 - (9) Learning how to effectively make use of my own abilities and talents.
 - (10) Becoming the kind of person who can reflect on my actions and utilise what I have learned in the future.
 - (11) Acquiring the ability to problem solve.
 - (12) Acquiring the ability to take the initiative and act on things myself.
 - (13) Acquiring the skill of self-control.
 - (14) Acquiring skills that enable me to handle data and utilise information.
 - (15) Acquiring teamworking skills.
 - (16) Acquiring leadership skills.
 - (17) Gaining knowledge about the Japanese language (modern Japanese, classic Japanese, etc.).
 - (18) Gaining knowledge about social studies (history, geography, civics, etc.).
 - (19) Gaining knowledge of mathematics.
 - (20) Gaining knowledge of science (physics, chemistry, biology, Earth science, etc.).
 - (21) Gaining knowledge of foreign languages (English, etc.).

- (22) Gaining knowledge of other subjects (art, physical education, and specialised subjects).
- (23) Becoming more internationally minded.
- (24) Gaining all-round proficiency in English (including English conversation skills).
- (25) Gaining the kinds of academic abilities that will help me enter my target university.

Question 3. What are you thinking of doing once you graduate from high school? Circle the item below that best matches your plans.

- 1. Attending a university in Japan
- 2. Attending a university overseas
- 3. Attending a 2-year junior college
- 4. Attending a vocational school
- 5. Getting a job
- 6. Have no idea
- 7. Other (Please explain: _____)

Question 4. To what extent in the future do you desire to work in the following kinds of environments?

- 1. Absolutely no desire at all
- 2. No particular desire
- 3. I could not say either way
- 4. I have some desire
- 5. I have a very strong desire

- (1) An environment where I am able to take a leadership role.
- (2) An environment where I can work at my own pace.
- (3) An international environment (whether domestically or overseas).
- (4) An environment where I can work as a member of a team.
- (5) An environment where I am working with people I know.
- (6) An environment where individuals are in competition with one another.

Question 5. To what extent do the following mindsets, attributes, and situations reflect your situation?

- 1. It in no way reflects my situation at all
- 2. It does not really reflect my situation
- 3. I could not say either way
- 4. Yes, to some extent this is accurate
- 5. Yes, this describes me exactly

- (1) I enjoy going to school.

- (2) I enjoy studying at school.
- (3) I am satisfied with school.
- (4) I am internationally minded.
- (5) I am able to utilise English effectively.
- (6) I am able to make use of numerical and statistical knowledge effectively.
- (7) I am able to make use of information and communication technology (or ICT) effectively.
- (8) I am good at the arts subjects (Japanese language and social studies, etc.).
- (9) I am good at science subjects (math and science, etc.).
- (10) I am thinking of studying overseas.

Question 6. If any of the following were to occur, to what extent would they make high school difficult for you?

- 1. No problem at all
- 2. No so much of a problem
- 3. I could not say either way
- 4. It would be something of a problem
- 5. Things would be extremely difficult

- (1) If school tuition fees were to increase.
- (2) If you were given larger amounts of homework.
- (3) If you had to study things that were not directly relevant to getting into university.
- (4) If you were studying a different programme from your friends.
- (5) If you did not have enough time to participate in extracurricular activities.
- (6) If the medium of instruction for some of the courses was English instead of Japanese.
- (7) If the medium of instruction for all courses was English instead of Japanese.

Question 7. How well do the following attitudes and situations describe you?

- 1. It does not describe me at all
- 2. It does not really describe me
- 3. I could not say either way
- 4. It describes me to some extent
- 5. It describes me very well

- (1) When faced with something I do not know, I frequently ask questions and look things up.
- (2) I often think about what kind of person I am.
- (3) I often study about society.

- (4) I often study about nature and the environment.
- (5) I have developed the habit of studying things that I am interested in regardless of whether they are related to school work or not.
- (6) When a problem occurs, I try and understand the reason why.
- (7) I think about what I can do to solve a problem.
- (8) When a problem occurs, I make an effort to solve it by myself.
- (9) I am really able to understand how others feel and think.
- (10) I am able to clearly express what I feel and think.
- (11) I often invite others to do something with me.
- (12) I am able to work well in a team in collaboration with others.
- (13) In a team, I am able to take the initiative and work out what role I should take on.
- (14) I am able to set goals and act in order to achieve them.
- (15) I am able to indicate group goals and get team members to act effectively.
- (16) I observe school rules and those of society.
- (17) I have a conscience and rules that guide my behavior.
- (18) I am able to take responsibility for my own behavior.
- (19) I understand that others may hold different opinions to me.
- (20) I understand that there are various values and cultures in the world.
- (21) I often offer help when someone needs assistance.
- (22) I always challenge myself to try something new.
- (23) I always try to produce something original.
- (24) I am able to utilise my own abilities effectively.
- (25) I try to keep myself in good health.
- (26) I try to keep myself fit and strong.
- (27) I am able to make plans and move things forward to reach these goals.
- (28) I am aware of my rights and responsibilities as a member of school and wider society.
- (29) I engage actively to try and make things better at school and in wider society.
- (30) I am able to adjust myself to changes in the surrounding environment.
- (31) Even when I experience stress, I am able to relax and stay positive.
- (32) I often consider the appropriateness of my actions and behavior.
- (33) I always make efforts to improve my attitude and behavior.

Question 8. How well do the following statements describe your attitude to things?

1. It does not describe me at all
2. It does not really describe me
3. I could not say either way
4. It describes me to some extent
5. It describes me very well

- (1) I try to grasp precisely the fundamental points of an argument and the definitions of key terms.
- (2) I try to give a logical explanation so that everyone can understand.
- (3) I try to summarise the ideas of others in my own words.
- (4) I try to learn many things by working with others who have a variety of ideas.
- (5) I plan to continue learning new things all my life.
- (6) I would like to learn about many different cultures.
- (7) I try to make decisions fairly.
- (8) I try to be objective when I have to make a decision about something.
- (9) I try to examine issues from multiple perspectives.
- (10) When making a decision, I think deeply about whether there is accurate evidence or not on which to base it.
- (11) When making a judgement about something, I search for as many facts and as much proof as possible.
- (12) I try to act based on clear evidence.

Question 9. How much do you know about the International Baccalaureate (IB)?

1. I have heard of the name 2. I know about the content of the IB 3. I don't know about the IB at all

Question 10. *(For those who chose either 1 or 2 for question 9 above)*

How did you learn about International Baccalaureate? Please circle the best answer.

Newspaper/ magazines/books TV Internet
 School family friends and acquaintances
 Family members or acquaintances who are now attending or have attended IB DP schools
 Other (explain:)

Question 11. Feel free to write your opinion about or any questions you have about the IB.

**You have finished. Thank you very much for your cooperation.
 Please submit to the school in the enclosed envelope.**

Appendix B. Baseline parent survey, English translation

Question 1. Is it you son or daughter who is taking part in this survey?

Sex: Son Daughter

Please fill in these details:

Grade____, Class____, Number____ or Student Number

Question 2. What are your expectations for what high school life will teach your son or daughter regarding the following items?

1. I have absolutely no expectations
 2. I don't really have any expectations
 3. I could not say either way
 4. I do have some expectations
 5. I have high expectations
-
- (1) Deepening his/her knowledge and understanding of topics that interest him/her.
 - (2) Gaining a variety of knowledge about humans, society, and nature.
 - (3) Being guided to think about the structure of social problems and ways to solve them.
 - (4) Improving his/her skills to communicate with others.
 - (5) Learning how to act according to his/her own conscience as well as social norms.
 - (6) Gaining an understanding of how, depending on the individual or the society, ways of thinking and culture may differ.
 - (7) Learning to be considerate towards others.
 - (8) Gaining a sense of his/herself as somebody who takes on challenges.
 - (9) Learning how to effectively make use of his/her own abilities and talents.
 - (10) Becoming the kind of person who can reflect on his/her actions and utilise what he/she has learned in the future.
 - (11) Acquiring the ability to problem solve.
 - (12) Acquiring the ability to take the initiative and act on things his/herself.
 - (13) Acquiring the skill of self-control.
 - (14) Acquiring skills that enable him/her to handle data and utilise information.
 - (15) Acquiring teamworking skills.
 - (16) Acquiring leadership skills.
 - (17) Gaining knowledge about the Japanese language (modern Japanese, classic Japanese, etc.).
 - (18) Gaining knowledge about social studies (history, geography, civics, etc.).
 - (19) Gaining knowledge of mathematics.

- (20) Gaining knowledge of science (physics, chemistry, biology, Earth science, etc.).
- (21) Gaining knowledge of foreign languages (English, etc).
- (22) Gaining knowledge of other subjects (art, physical education, and specialised subjects).
- (23) Becoming more internationally minded.
- (24) Gaining all-round proficiency in English (including English conversation skills).
- (25) Gaining the kinds of academic abilities that will help him/her enter his/her target university.

Question 3. What are your hopes for your child once he/she graduates from high school? Circle the item below that best matches your hopes for your son/daughter.

- 1. Attending a university in Japan
- 2. Attending a university overseas
- 3. Attending a 2-year junior college
- 4. Attending a vocational school
- 5. Getting a job
- 6. I have no idea
- 7. Other (Please explain: _____)

Question 4. To what extent do you hope in the future your child will work in the following kinds of environments?

- 1. Absolutely no desire at all
- 2. No particular desire
- 3. I could not say either way
- 4. I have some desire
- 5. I have a very strong desire

- (1) An environment where he/she is able to take a leadership role.
- (2) An environment where he/she can work at his/her own pace.
- (3) An international environment (whether domestically or overseas).
- (4) An environment where he/she can work as a member of a team.
- (5) An environment where he/she can work with people he/she knows.
- (6) An environment where individuals are in competition with one another.

Question 5. How difficult would it be for you if any of the following things were to occur while your child is in high school?

- 1. No problem at all
- 2. It would not be so much of a problem
- 3. I could not say either way
- 4. It would be something of a problem

5. Things would be extremely difficult

- (1) If school tuition fees were to increase.
- (2) If your child were given larger amounts of homework.
- (3) If your child had to study things that were not directly relevant to getting into university.
- (4) If your child were studying a different programme from his/her friends.
- (5) If your child did not have enough time to participate in extracurricular activities.
- (6) If the medium of instruction for some of the courses was English instead of Japanese.
- (7) If the medium of instruction for all courses was English instead of Japanese.

Question 6. How much do you know about the International Baccalaureate (IB)?

1. I have heard of the name 2. I know about the content of the IB 3. I don't know about the IB at all

Question 7. *(For those who chose either 1 or 2 for question 6 above)*

How did you learn about International Baccalaureate? Please circle the best answer.

Newspaper/ magazines/books TV Internet
School family friends and acquaintances
Family members or acquaintances who are now attending or have attended IB DP schools
Other (explain:)

Question 8. Feel free to write your opinion about or any questions you have about the IB.

You have finished. Thank you very much for your cooperation.

**The questions are over. Thank you very much for your cooperation.
Please submit to the school with enclosing to the envelope.**

Appendix C. Student survey result tables, by question

Table 5.12. Students' expectations for their programmes

Question	IB		Non-IB		Sig.
	Mean	Standard deviation	Mean	Standard deviation	
Gaining knowledge about the Japanese language (modern Japanese, classic Japanese, etc.).	3.79	(1.03)	3.93	(0.94)	
Gaining knowledge of mathematics.	4.10	(1.01)	4.17	(0.97)	
Gaining knowledge of science (physics, chemistry, biology, Earth science, etc.).	4.10	(1.00)	4.11	(0.96)	
Gaining knowledge about social studies (history, geography, civics, etc.).	4.07	(0.95)	4.08	(0.85)	
Gaining the kinds of academic abilities that will help me enter my target university.	4.50	(0.80)	4.47	(0.81)	
Learning how to act according to my own conscience as well as social norms.	4.21	(0.87)	4.11	(0.82)	
Learning to be considerate towards others.	4.26	(0.89)	4.17	(0.90)	
Gaining a sense of myself as somebody who takes on challenges.	4.49	(0.65)	4.24	(0.86)	*
Acquiring teamworking skills.	4.35	(0.94)	4.09	(0.94)	**
Improving my skills to communicate with others.	4.42	(0.82)	4.13	(0.87)	**
Gaining a variety of knowledge about humans, society, and nature.	4.17	(0.73)	3.88	(0.86)	**
Acquiring the skill of self-control.	4.51	(0.58)	4.22	(0.85)	**
Acquiring the ability to problem solve.	4.47	(0.65)	4.16	(0.84)	**
Acquiring skills that enable me to handle data and utilise information.	4.31	(0.62)	3.99	(0.87)	**
Becoming the kind of person who can reflect on my actions and utilise what I have learned in the future.	4.36	(0.72)	4.04	(0.87)	**
Deepening my knowledge and understanding of topics that interest me.	4.32	(0.69)	4.00	(0.88)	**
Learning how to effectively make use of my own abilities and talents.	4.57	(0.65)	4.22	(0.88)	**
Gaining knowledge of other subjects (art, physical education, and specialised subjects).	4.15	(0.88)	3.80	(1.00)	**
Being guided to think about the structure of social problems and ways to solve them.	4.14	(0.81)	3.77	(0.90)	**
Gaining knowledge of foreign languages (English, etc.).	4.76	(0.57)	4.35	(0.85)	**
Gaining an understanding of how, depending on the individual or the	4.54	(0.65)	4.11	(0.87)	**

society, ways of thinking and culture may differ.					
Acquiring the ability to take the initiative and act on things myself.	4.36	(0.83)	3.89	(0.98)	**
Acquiring leadership skills.	4.04	(1.01)	3.48	(1.08)	**
Gaining all-round proficiency in English (including English conversation skills).	4.75	(0.58)	4.15	(0.95)	**
Becoming more internationally minded.	4.74	(0.53)	3.88	(1.02)	**

Question 2. What are your expectations of what high school life will teach you regarding the following items? 1. I have absolutely no expectations 2. I don't really have any expectations 3. I could not say either way 4. I do have some expectations 5. I have high expectations

Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

Table 5.13. The type of working environments students hope for in the future

Question	IB		Non-IB		Sig.
	Mean	Standard deviation	Mean	Standard deviation	
An environment where I am working with people I know.	3.28	(0.94)	3.68	(1.05)	**
An environment where individuals are in competition with one another.	3.10	(1.07)	3.04	(1.13)	
An environment where I can work at my own pace.	4.37	(0.80)	4.23	(0.84)	
An environment where I can work as a member of a team.	4.23	(0.85)	4.04	(0.91)	
An environment where I am able to take a leadership role.	3.72	(0.94)	3.23	(1.07)	**
An international environment (whether domestically or overseas).	4.59	(0.65)	3.67	(1.08)	**

Question 4. To what extent in the future do you desire to work in the following kinds of environments? 1. Absolutely no desire at all 2. No particular desire 3. I could not say either way 4. I have some desire 5. I have a very strong desire

Note: Mean differences marked with ** are significant at the $p < .01$ level.

Table 5.14. Educational mindsets and competencies

Question	IB		Non-IB		Sig.
	Mean	Standard deviation	Mean	Standard deviation	
I am good at science subjects (math and science, etc.).	3.13	(1.06)	3.12	(1.16)	
I am satisfied with school.	3.93	(1.01)	3.77	(1.06)	
I am good at the arts subjects (Japanese language and social studies, etc.).	3.35	(1.22)	3.17	(1.16)	
I am able to make use of numerical and statistical knowledge effectively.	3.08	(0.99)	2.89	(0.99)	

I enjoy studying at school.	3.79	(1.05)	3.58	(1.06)	
I enjoy going to school.	4.38	(0.91)	4.05	(0.99)	**
I am able to make use of information and communication technology (or ICT) effectively.	3.33	(0.89)	2.80	(1.03)	**
I am able to utilise English effectively.	3.63	(1.11)	2.81	(1.07)	**
I am internationally minded.	3.75	(0.93)	2.91	(1.04)	**
I am thinking of studying overseas.	3.44	(1.43)	2.28	(1.32)	**

Question 5. To what extent do the following mindsets, attributes, and situations reflect your situation? 1. It in no way reflects my situation at all 2. It does not really reflect my situation 3. I could not say either way 4. Yes, to some extent this is accurate 5. Yes, this describes me exactly

Note: Mean differences marked with ** are significant at the $p < .01$ level.

Table 5.15. Student perceptions of potential academic obstacles

Question	IB		Non-IB		Sig.
	Mean	Standard deviation	Mean	Standard deviation	
If the medium of instruction for some of the courses was English instead of Japanese.	2.29	(1.19)	3.40	(1.27)	**
If the medium of instruction for all courses was English instead of Japanese.	3.11	(1.50)	4.14	(1.19)	**
If you were studying a different programme from your friends.	2.30	(1.03)	2.95	(1.11)	**
If school tuition fees were to increase.	3.97	(1.05)	4.34	(0.94)	**
If you had to study things that were not directly relevant to getting into university.	3.71	(1.19)	4.03	(1.01)	*
If you were given larger amounts of homework.	3.89	(1.07)	3.61	(1.19)	
If you did not have enough time to participate in extracurricular activities.	3.74	(1.10)	3.45	(1.31)	

Question 6. If any of the following were to occur, to what extent would they make high school difficult for you? 1. No problem at all 2. Not so much of a problem 3. I could not say either way 4. It would be something of a problem 5. Things would be extremely difficult

Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

Table 5.16. Student self-perceptions of their own skills and competencies

Question	IB		Non-IB		Sig.
	Mean	Standard deviation	Mean	Standard deviation	

I have developed the habit of studying things that I am interested in regardless of whether they are related to school work or not.	2.64	(1.14)	2.87	(1.09)
I observe school rules and those of society.	3.99	(0.84)	4.14	(0.82)
I am aware of my rights and responsibilities as a member of school and wider society.	3.50	(0.86)	3.57	(0.91)
I am really able to understand how others feel and think.	3.56	(0.85)	3.59	(0.89)
When a problem occurs, I try and understand the reason why.	3.73	(0.90)	3.73	(0.90)
I have a conscience and rules that guide my behavior.	4.03	(0.70)	4.00	(0.86)
I am able to set goals and act in order to achieve them.	3.49	(0.94)	3.46	(0.93)
I often invite others to do something with me.	3.77	(0.87)	3.71	(1.06)
I am able to work well in a team in collaboration with others.	3.94	(0.88)	3.87	(0.93)
I am able to take responsibility for my own behavior.	3.84	(0.85)	3.75	(0.92)
I think about what I can do to solve a problem.	3.87	(0.80)	3.77	(0.89)
When a problem occurs, I make an effort to solve it by myself.	3.90	(0.80)	3.78	(0.86)
I often think about what kind of person I am.	3.77	(1.00)	3.65	(1.09)
I am able to adjust myself to changes in the surrounding environment.	3.61	(0.91)	3.45	(0.94)
I try to keep myself in good health.	3.67	(1.02)	3.50	(1.13)
In a team, I am able to take the initiative and work out what role I should take on.	3.77	(0.87)	3.60	(0.90)
I always make efforts to improve my attitude and behavior.	4.03	(0.82)	3.85	(0.88)
I often consider the appropriateness of my actions and behavior.	3.77	(0.92)	3.58	(0.95)
I understand that there are various values and cultures in the world.	4.63	(0.57)	4.43	(0.75)
I often offer help when someone needs assistance.	3.89	(0.81)	3.68	(0.88) *
I am able to make plans and move things forward to reach these goals.	3.27	(1.01)	3.06	(1.05)
I am able to clearly express what I feel and think.	3.50	(0.86)	3.28	(1.01)
I understand that others may hold different opinions to me.	4.44	(0.73)	4.22	(0.85)
I often study about society.	3.21	(0.95)	2.99	(0.96)
Even when I experience stress, I am able to relax and stay positive.	3.51	(1.10)	3.28	(1.14)
I am able to indicate group goals and get team members to act effectively.	3.30	(0.97)	3.03	(1.00) *
When faced with something I do not	3.80	(1.03)	3.51	(0.95) **

know, I frequently ask questions and look things up.					
I often study about nature and the environment.	3.16	(0.96)	2.85	(1.00)	*
I am able to utilise my own abilities effectively.	3.41	(0.83)	3.08	(0.92)	**
I always try to produce something original.	3.49	(1.02)	3.10	(1.04)	**
I engage actively to try and make things better at school and in wider society.	3.47	(0.93)	3.08	(0.96)	**
I try to keep myself fit and strong.	3.61	(1.18)	3.20	(1.28)	*
I always challenge myself to try something new.	3.70	(0.98)	3.24	(0.95)	**

Question 7. How well do the following attitudes and situations describe you? 1. It does not describe me at all 2. It does not really describe me 3. I could not say either way 4. It describes me to some extent 5. It describes me very well

Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

Table 5.17. Critical thinking attitudes

Question	IB		Non-IB		Sig.
	Mean	Standard deviation	Mean	Standard deviation	
When making a decision, I think deeply about whether there is accurate evidence or not on which to base it.	3.77	(0.94)	3.71	(0.88)	
I try to act based on clear evidence.	3.67	(0.96)	3.58	(0.88)	
I try to give a logical explanation so that everyone can understand.	3.54	(0.88)	3.43	(0.94)	
When making a judgement about something, I search for as many facts and as much proof as possible.	3.86	(0.86)	3.68	(0.90)	
I try to summarise the ideas of others in my own words.	3.60	(0.86)	3.39	(0.95)	
I try to examine issues from multiple perspectives.	3.87	(0.96)	3.65	(0.92)	
I try to be objective when I have to make a decision about something.	3.83	(0.85)	3.60	(0.88)	
I try to grasp precisely the fundamental points of an argument and the definitions of key terms.	3.83	(0.72)	3.59	(0.85)	*
I plan to continue learning new things all my life.	4.03	(0.92)	3.79	(0.95)	
I try to make decisions fairly.	4.01	(0.83)	3.70	(0.88)	**
I try to learn many things by working with others who have a variety of ideas.	4.39	(0.92)	3.96	(0.94)	**
I would like to learn about many different cultures.	4.47	(0.85)	3.83	(1.05)	**

Question 8. How well do the following statements describe your attitude to things? 1. It does not describe me at all 2. It does not really describe me 3. I could not say either way 4. It describes me to some extent 5. It describes me very well

Note: Mean differences marked with * are significant at the $p < .05$ level, and those marked with ** are significant at the $p < .01$ level.

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