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A Psychometric Validation of the International Baccalaureate Self-Study Questionnaire

by

Christopher J. Schuster

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Doctor of Education

in

Educational Leadership

Lehigh University

November 2014

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November 2014

Certificate of Approval

Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements for the degree of Doctor of Education.

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Beauty is truth, truth beauty – that is all
Ye know on earth and all ye need to know.
- Keats, Ode on a Grecian Urn, 1819

Research is a beautiful process filled with wonder and the excitement fostered by anticipation. I believe this study discovered certain truths about the SSQ instrument and through my reflections certain truths about myself and all of those who guided me throughout the journey. Carla Molloy is the best wife a man could ever ask for, and I am thankful everyday for the love, support, and editing she provided me throughout this process. I would also like to thank my parents, John and Phyllis Schuster who instilled in me from a young age a passion for reading and learning which has turned into a lifelong love. My closest friends Rob Rinaldi, Paul Oliver, Charles Kown, Matt Olson, Wouter Hendrix, Greg Israel, Luke MacBride and Niall Gibson, thank you for your unwavering confidence in my ability to succeed. Thank you to all other friends and family for your support.

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Abstract

The International Baccalaureate Self-Study Questionnaire: Diploma Programme is a self-study instrument that must be completed by IB Diploma Programme schools every five years as part of the IB program evaluation cycle. The purpose of this study was to psychometrically validate the self-study instrument. Content validity was examined through a modified Delphi technique using a panel of five experts. Construct validity was examined using a stratified random sample of 223 completed self-study questionnaires through a confirmatory factor analysis and internal consistency reliability check of the seven Likert scales contained in the instrument. Results validate portions of the instrument, but also indicate various validity and reliability issues that need to be addressed to strengthen the instrument. Recommendations for further research include a comparative analysis of IB schools completing the self-study questionnaire for the first time to IB schools completing the self-study questionnaire for the second or third time.

CHAPTER 1

Introduction

Program evaluation plays a vital role in determining the strengths and needs of educational organizations. Self-study survey instruments are tools often used in education to reflect on different aspects of curriculum. Self-study results measure the level of a program's implementation and provide useful data to help determine the steps necessary for further development.

A self-study instrument is deemed useful after it has been proven to be both a valid and reliable measure of the intended construct (Gibson, 2005). The program in this study is the International Baccalaureate Diploma Programme (IBDP) and the instrument used to measure it is the IB Self-Study Questionnaire: Diploma Programme (SSQ). This study is necessary due to the widespread use of the instrument without psychometric validation.

Created by the International Baccalaureate Organization (IBO), the SSQ is used by all IB Diploma schools every five years as part of the IB self-study process. The heart of the instrument is a 74-item, 4-point Likert scale questionnaire asking high school representatives to rate the level of IBDP implementation in the areas of philosophy, organization, and curriculum. This study examined the validity and reliability of the instrument.

Background of the Study

Education systems in different nations are constantly evolving as leaders are looking for ways to improve the knowledge of their citizens. The United States of America is such a nation and as a result it is currently experiencing one of the most

significant educational reform movements in its history (Hursch, 2005). This level of reform exists at all levels of education, but no portion of the system has been impacted greater than elementary and secondary public schools. Since the enactment of the Federal No Child Left Behind (NCLB) legislation in 2002, the government has mandated a substantive increase in the use of standardized testing resulting in major curriculum reforms to meet the increased emphasis on accountability. Schools now have a clearer picture of where their students rank among their state-wide peers; however, little consensus exists on how much these policies increase student achievement (Amrein & Berlinger, 2002; Berlinger, 2006; Braun, Chapman, & Vezzu, 2010; Conley, 2008; Lee & Reeves, 2012).

Public schools in the United States and other industrialized nations are now expected to have all students college and/or career ready (U.S. Department of Education, 2010). This increased government demand for college preparedness stems from the changes occurring within the United States and abroad. As a result of the economic and social changes occurring from globalization, the U.S. educational system is now in the difficult position of reforming its purpose (Carnoy & Rhoten, 2002). As state and federal governments have increased their accountability measures through standardized tests, many educational scholars question the effectiveness of testing basic content and routine skills to improve student performance (Amrein & Berlinger, 2002).

One approach to the evaluation of school effectiveness has been to address student achievement expectations through the increased rigor and relevance of the curriculum, and by fostering positive and meaningful relationships between teachers and students with modern teaching methods (Bogess, 2007). The new 3 Rs (rigor, relevance,

and relationships) have become, to many, a new foundation for school reform (Bogess, 2007). By focusing the educational system on creativity and problem-solving skills in addition to standardized content knowledge, scholars believe there will be greater long-term benefits to the U.S. economy through the development of a high-order thinking population (Sahlberg, 2006).

A more rigorous curriculum has been a goal of state and federal governments since the mid-'90s (Sahlberg, 2006). As a result, there has been a nation-wide increase in high school graduation course requirements and an introduction of standards-based curricula. Unfortunately, these steps have failed to produce a consistent college preparatory school curriculum at the state and federal levels (Sahlberg, 2006). An enormous amount of variety exists between school districts regarding definitions of what constitutes a college preparatory course. The result is a large group of students who are eligible for college, but fall short of the skills required to achieve success in higher education. Conley (2008) conservatively estimates that at least 25% of all students entering U.S. colleges need remedial courses in either mathematics or English. Wagner (2008) puts this number at 40%. Students who fall into this category are less likely to earn a degree or complete a degree in four years. Now that secondary schools are supposed to make all students college and career ready, solutions are necessary to address this preparedness problem (Conley, 2008).

One way schools are trying to address the college readiness conundrum, is through increased participation with alternative curriculums, such as the Common Core, Advanced Placement (AP) and International Baccalaureate (IB) programs that continue to grow in popularity at the high school level. These programs claim to make students

college ready and universities recognize their quality by awarding college credit to high school students who score high enough on AP and IB examinations (Conley, 2008; Rhodes, 2007). Simply participating in either the AP or IB programs reveals to universities that a student is enrolled in rigorous and demanding curricula offered at the high school level (Burris, Welner, Wiley, and Murphy, 2007; Gazda-Grace, 2002; Gemma, 2004; Hernandez, 1997). Traditionally reserved for honors level students, there is presently a push in education to continue to register greater numbers of the student population into these advanced courses (Kyburg, Hertberg-Davis, & Callahan, 2007; Luce & Thompson, 2005; Rogers, 2005; Slocumb & Payne, 2000). This increased standard of course rigor is particularly true with the IB Organization (IBO), which has taken steps to create middle and elementary school programs intended to better prepare students for success in its high school program, known as the International Baccalaureate Diploma Programme (IBDP).

In 1968, the IBO developed the IBDP in Geneva, Switzerland to improve the chances of foreign students being accepted into their homeland universities (Gemma, 2004; Gollub, Berhenthal, Labov, & Curtis, 2002). Since then, the International Baccalaureate Organization (IBO) has expanded across the globe and is represented in both public and private schools. Of the three program levels, the high school Diploma Programme is the largest (IBO, 2009a). Approximately 828 high schools in the U.S. currently offer the IB Diploma Programme (Retrieved October 14, 2014 from IB World School Statistics, www.ibo.org). The authorized use of the IBDP is growing in the United States at a faster rate than anywhere else in the world (IBO, 2009b).

In order for a high school to officially adopt the IBDP and become an official "IB World School," a formal four-step authorization process occurs over a three-year period. The first step in IB authorization involves a school notifying IB of its intent to become an IB World School. The school then submits an application that includes the results of a feasibility study identifying necessary resources for a sustained implementation. If IBO approves this application, a school reaches "candidate status." The candidate school then submits a second application that focuses on the curriculum development and teacher training necessary for the program. Once this process is completed, an IB review team conducts a site visit to assist the school administration with the planning of the program implementation. If the site visit is a success, the IBO director general authorizes the school as an IB World School (IBO, 2010). Once approved, the high school can begin implementing the IBDP. Students complete the program requirements and take end of course examinations. Successful completion of both tasks often results in college credit. When any school becomes an IB World School, it can offer the IB program and must pay an annual fee to the IBO. The IBO does not administer or own any schools. The IBO works with schools to help establish student success in the IB curriculum by requiring continuous teacher professional development, the completion of a self-study, and the creation of an action plan aimed at increasing the implementation of the IB core components.

The IB Learner Profile best describes the core components of the IB Diploma Programme. Derived from the IB mission statement, the IB learner profile is, "…a set of learning outcomes for the 21st century" (IBO, 2009c, p. 1). The specific aim of the Diploma Programme is, "to develop internationally minded people who, recognizing their

common humanity and shared guardianship of the planet, help create a better and more peaceful world" (IBO, 2009c, p. 5). The IB curriculum promotes education of the whole person, the development of independent critical and creative thought, an understanding of international mindedness, and the knowledge and skills necessary to be a productive contributor to society. In practice, this vision includes teaching involving authentic interaction between students and teachers, helping students work effectively as a team, and empowering students to take responsibility for their own learning. Students are encouraged to inquire, take risks, and thoughtfully reflect throughout their education (IBO, 2009c).

The IB Diploma Programme is becoming a logical choice for the curricula in U.S. public high schools for several reasons. The first is the quality of its curriculum. As stated earlier, universities regard the IBDP curriculum as among the most challenging programs offered at the high school level (Burris et al., 2007; Gazda-Grace, 2002; Gemma, 2004, Hernandez, 1997). Students who attempt to achieve the IB Diploma study six courses over two years in a variety of subjects, complete an extended essay based on a topic of their interest, complete a mandatory Theory of Knowledge course, and meet a Creativity, Action, and Service (CAS) requirement ensuring high school student involvement in the community outside of academia. The IBDP curriculum requires the use of critical thinking and research skills necessary at the collegiate level.

Another reason the IBDP is a logical choice for U.S. public high schools is the international mindedness encouraged throughout the program. IBO expects students to first have a thorough understanding of their own national and ethnic identity in relation to others. They then acquire the skills necessary for working with people from different

backgrounds. In the age of globalization, collaborative partnerships and cultural understandings are necessary skills often missing in U.S. curricula, but required in the international marketplace (Carnoy & Rhoten, 2002; Wagner, 2008).

A third reason for a U.S. public school to adopt the IBDP is that it joins a worldwide community committed to a well-defined mission and vision. This community involves schools from 139 countries that work cooperatively to improve student achievement. The IB World School community shares a strong commitment to academic rigor and teacher development and shares intellectual resources, making it ideal for educational reform. For example, IBO provides IB teachers with an online curriculum center in order to access ideas about IB lessons and teachers are regularly encouraged to attend professional development sessions.

Support for IBDP implementation comes from the collaboration of IB World School members and from the IBO itself. During the application process, IBO provides consulting support to candidate schools that continues throughout the schools' affiliation with IBO. After the IBO confers World School status on a school, it then engages in continuous improvement by participating in a program evaluation that culminates in a review every five years. This evaluation process contains the IB Self-Study Questionnaire: Diploma Programme (SSQ). The purpose of the SSQ is to measure the level of implementation of the IBDP's core components in a given school. Once completed, the SSQ results serve as the basis for a five-year Action Plan designed to improve the program.

In many ways this process mirrors the self-study requirements found in the school accreditation processes used throughout the United States. However, IBO will not

withdraw a school's IB World School status if the self-study results show weaknesses (IBO, 2005). The IBO determines if an on-site visit is necessary during this process (Table 1). Rather than merely reauthorizing the school's IB status, the process is designed to identify strengths and areas in need of improvement and then assist a school in furthering its IBDP's effectiveness (IBO, 2005).

Table 1

IB Evaluation Logic Model

Logic model: IB Program evaluation Five-year process			
Step 1:	Step 2:	Step 3:	Step 4:
IB Regional Office notifies school of self-study requirement. IB World School leadership team plans self-study process.	IB World School conducts self-study.	IB Regional Office evaluators review self-study. IB Regional Office evaluators generate a report on findings.	IB World School creates and enacts a five-year action plan based on IB Regional Office evaluator report findings.

Outside of the IBO, the six major accrediting agencies in the United States: New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, North Central Association, Northwest Accreditation Commission, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges also use self-studies as part of their evaluative assessment (Brittingham, 2009). An umbrella company, AdvanceED, operates the accreditation self-study process of three of these agencies, North Central Association, Northwest Accreditation Commission, and Southern Association of Colleges and Schools. Common traits are found within self-studies created by AdvanceED, the remaining accrediting agencies and the IBO. Self-studies generally include the entire school community; therefore, requiring a substantial

commitment to collaboration (Miller, 1999). The self-study also serves to align the standards of the accrediting organization to that of the school under review. Schools are required to reflect and conclude on their current status in relation to such standards with the intent to more closely align their program in the future (Wilson, 1999).

The Problem

Despite the common use of self-studies in educational accrediting agencies and the IBO, a void exists in the research on the validity of self-study instruments. After multiple attempts at contacting the six regional accrediting agencies through different offices, I was only able to locate minimal self-published psychometric data on self-study instruments from AdvanceED. The new version of the IB Self-Study Questionnaire: Diploma Programme (SSQ), which is the IBO's recently published instrument used by school members during the self-study process, has not been psychometrically validated. Created in November 2010, the current SSQ instrument is a revision of the previous self-study questionnaire. The SSQ divides the IBDP into three core components: Philosophy, Organization, and Curriculum. Within these three constructs, schools self-evaluate their level of implementation on various qualities of standards essential to each component. School members rate their organization on a 4-point Likert scale ranging from low implementation to high implementation in each of the three components. Schools may not choose "NOT IMPLEMENTED" as an option. It is from these self-reported ratings that strengths and weaknesses of the implementation of the IBDP are determined. For a full explanation of the IB Self-Study Process, see Chapter 2: Literature Review. The SSQ is in Appendix A.

Researchers have yet to conduct statistical tests on either the former or existing self-study questionnaires to measure the validity and reliability of the instruments. In addition, I have not found research that confirms that completing the self-study process in any way results in future greater levels of IBDP implementation. Determining the validity and reliability of the new SSQ is the challenge of this research. The self-study instrument exists for the purpose of measuring the implementation of core components of the IBDP in a school and forms the basis of data used in the development of the resulting five year action plan. The SSQ helps define what it is that makes the IBDP unique compared to other programs and intends to measure these qualities in the schools that use the instrument. Without psychometric validation there is no evidence suggesting that the SSQ measures what it intends to measure or that it does so consistently. Given the high stakes placed on schools and students, IB should have a well documented and vetted method for measuring the implementation of the Diploma Programme.

Purpose of the Study

This study addressed the need to validate the IBDP Self-Study Questionnaire: Diploma Programme (SSQ). Validating the SSQ was a useful exercise because it ensured that the IBO is asking clear, correct, and relevant questions regarding program implementation. If given consideration by the IBO, the results of this study can improve the instrument through the recommendations made in Chapter 5: Conclusions. A better instrument will lead to better implementation, and that will translate into better student outcomes. Once portions of the instrument were validated, the survey results could also be used for research purposes to identify implementation trends and help the IBO assist schools in improving their IB programs.

The goal of this study was to assess the reliability and validity of the SSQ. Like all survey instruments, the SSQ should be subjected to psychometric evaluation and should be continuously reevaluated throughout its use (Hong, Purzer, & Cardella, 2011). The instrument is a formative evaluation tool, which Stetler and colleagues (2006) define as, "a rigorous assessment process designed to identify potential and actual influences on the progress and effectiveness of implementation efforts" (p. 52). Rather than providing the IBO with a summative snapshot of the program, the self-study "…provides an opportunity to pause and reflect honestly on achievements and new initiatives in order to enhance the implementation of the IB programme" (IBO, 2005, p. 1). IBDP enhancement is most recognizable through the completion of the subsequent action plan designed by members of the school completing the self-study.

I examined the current factor structure of the SSQ to determine its consistency with its three design constructs: philosophy, organization, and curriculum, along with examining the internal consistency of the questionnaire, to evaluate whether the survey creators met their intentions. Multiple studies exist validating the factor structures and reliability of Likert scale questionnaires used for a variety of purposes (Blackall et al., 2007; Hays, 2008; Schlosser & Gelso, 2005; Weber, Weber, Sleeper, & Schneider, 2004). By conducting similar research, I aspired not only to assist the IBO and member schools in the self-study process, but also contribute to the larger understanding of self-study instrument design. To accomplish that purpose, the following research questions were addressed.

Research Questions

1. Does the IB Self-Study Questionnaire: Diploma Programme possess content validity?
2. What is the factor structure of the IB Self-Study Questionnaire: Diploma Programme and is it consistent with the three IB standards: philosophy, organization, and curriculum?
3. What is the internal consistency reliability of the factors contained within the IB Self-Study Questionnaire: Diploma Programme?

Definitions of Terms

International Baccalaureate Organization (IBO) – The global governing body of all International Baccalaureate programs including the Primary Years Programme (PYP) for elementary students, the Middle Years Programme (MYP) for middle school students and the Diploma Programme (DP) for high school students.

International Baccalaureate Diploma Programme (IBDP) – An accelerated two-year program for 11th-12th grade high school students encompassing all of their subjects. Students are internally assessed by their teachers and externally tested by the IBO in six subject areas and are also required to take a course entitled Theory of Knowledge, complete Community, Action, Service (CAS) hours, and complete an extended essay. Students are awarded an International Baccalaureate Diploma if they meet the requirements and adequately score on their exams. Nearly all universities offer subject area credit for specific minimum scores in IB courses.

International Baccalaureate Diploma Candidate – An 11th or 12th grade student involved in the full International Baccalaureate Diploma Programme explained above.

International Baccalaureate Certificate – Students who are not enrolled in the full IBDP can take subject specific courses and their subsequent exam to earn a certificate in that course. Depending on the score and the university, this certificate may be valid for college credit.

IB World School – A school that is endorsed by the IBO to run either the PYP, MYP, or Diploma Programmes.

IB Coordinator – An administrative position at an IB World School with the task of overseeing the IB Programme. The coordinator can be either full time or part time with another position, such as teaching or other administrative duties.

Programme Standards and Practices document (PSP) – A list of criteria used by schools and the IBO during the programme evaluation process to measure the level of IBDP implementation in a school. Standards are broken down into three major categories: philosophy, organization, and curriculum.

IB Programme Evaluation – An ongoing process where IB World Schools and the IBO work to review and revise the implementation of the IB programme by continually monitoring and aligning the IB Standards and Practices within a school. This is done through a self-study conducted by the school, a school visit by the IBO (if necessary), reports from IB based on the self-study and visit and the creation and use of an action plan.

IB Self-Study – Deemed by the IBO as "the most important aspect of the entire process of program evaluation" (IBO, 2005, p. 1), the study takes no less than 12 months and involves complete stakeholder participation to examine and report on all aspects of

the IB programme at the school. IBDP schools are required to do this once every five years.

IB Self-Study Questionnaire: Diploma Programme (SSQ) – The guiding document of the self-study process. It includes introductory and concluding sections as well as three main parts that align with the sections: philosophy, organization, and curriculum. A school examines each of these sections in light of the Standards and Practices associated with each of them. Schools, for each standard and practice, evaluate their perceived level of implementation using 4-point Likert scales. Additional information is required in each section to provide evidence for a school's self-ratings.

CHAPTER 2

Literature Review

The International Baccalaureate Diploma Programme is a rigorous two-year high school program that universities recognize for its value in preparing students for academic success in higher education. Nearly all colleges and universities in North America provide credits for IB Diploma Programme recipients (Knobloch, 2009). Students take six two-year courses in core subjects and complete additional academic and service requirements to earn the IB Diploma. In addition to academic success in university, the purpose of the IBDP is to prepare, "students for effective participation in a rapidly evolving and increasingly global society" ("Mission and Strategy," 2013). The IBDP is more than the academic courses and the exams that accompany them. The emphasis on creating globally minded students is clearly seen through the IBO mission statement:

> The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.
>
> To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.
>
> These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. ("Mission and Strategy," 2013)

The IBDP is growing in popularity with a worldwide compound annual growth rate of 9.25% between 2007 and 2012 (Lineham, 2013). Eight hundred and twenty-eight IBDP schools exist in the United States and there are over 2,600 worldwide (Retrieved October 14, 2014 from IB World School Statistics, www.ibo.org). More educational research has focused on the IBDP in the last decade due to its consistent growth and recent popularity. The largest body of IBDP research focuses on student performance in higher education. Results consistently show that IBDP graduates are better prepared than non-IBDP graduates for university by achieving higher grades and by completing their degrees in fewer years (Burris et al., 2007; Duevel, 1999; Gazda-Grace, 2002; Gemma, 2004; Panich, 2001; Poelzer & Feldhusen, 1996). A newer body of research is emerging describing the success of IBDPs in lower income areas for large populations of students (Burris et al., 2007; Coca, Johnson, & Kelley-Kemple, 2011; Kyburg, Hertberg-Davis, & Callahan, 2007), in contrast to earlier research which viewed the IBDP as an alternative to the Advanced Placement (AP) Program, traditionally reserved for honors students (Berkey, 1994; Hernandez, 1997; Poelzer & Feldhusen, 1996; Torre-Halscott, 1992). This research shift from a focus on the IBDP as an honors curriculum to a school-wide curriculum suggests greater emphasis on the core values of the IBDP and a de-emphasis on strictly academic performance. The latest research on the IBDP continues this trend by examining how the mission of the IBDP is delivered in an international school (Lineham, 2013). The IBDP is more than simply a set of tests; it requires various assessments in individual courses, an extended essay on a student chosen topic, a service component, and a Theory of Knowledge (TOK) course.

The following analysis of existing research serves as a guide for the importance and the methodology and content of this study. This literature review first establishes the methodology of this study by an analysis of the research of recent Likert scale instrument validation studies, the review continues with an examination of common themes of self-study research when compared to the IBDP Self-Study, and then is followed by a review of research showing the increased student outcomes for students participating in the IBDP. The chapter concludes with a review of IBDP Self-Study instructions to provide readers a sense of the process of completing the IB Self-Study Questionnaire: Diploma Programme. The following sections of this chapter use established research to clearly outline the necessity of this study.

Instrument Validation

This section of the literature review focuses on understanding how the IB Self-Study Questionnaire:Diploma Programme (SSQ) can be confirmed as a valid and reliable instrument for measuring the implementation of an individual school's IBDP. The following pages review multiple Likert-scale instrument validation studies with similar constructs to the SSQ. The studies described all contain elements of the methodology used in this study explained in Chapter 3: Methodology.

Within academia, there are commonly accepted procedures for Likert-scale survey instrument development primarily formed from the combined efforts of the American Education Research Association (AERA), the American Psychological Association (APA), and the National Council of Measurement in Education (NCME). These standards, found in the book *Standards for Educational and Psychological Testing* (1999), demand specific protocols are followed in the creation and maintenance of

Likert-scale survey instruments (Hong et al., 2011). The creators of the IB Self-Study Questionnaire: Diploma Programme (SSQ) have not followed these protocols. The following review examines multiple Likert-scale survey instruments similar to the SSQ and discusses the methods used to both create and psychometrically validate them. The methods used in the following studies serve as the foundation for the methodology of this dissertation.

Four key trends emerged from the following review of instrument design. The first is that new instruments were designed based on the current literature in the field investigated (Blackall et al., 2007; Porter et al., 2010; P. S. Weber, Weber, Sleeper, & Schneider, 2004). Second, a panel of experts reviewed the instrument for content validity and made revisions (Blackall et al., 2007; Porter et al., 2010). Third, a sample was used to check for content validity, often in the form of a factor analysis, and a reliability check, usually from an analysis of Cronbach's alpha coefficients (Blackall et al., 2007; Hong et al., 2011; Porter et al., 2010; Weber et al., 2004). Fourth, as a result of this process, revisions were often made to help strengthen the instrument (Blackall et al., 2007; Hong et al., 2011, Weber et al., 2004).

The Porter and colleagues (2010) VAL-ED study discussed in the following paragraphs is the first of multiple studies described in detail for the benefit of the reader to witness the clear pattern of Likert scale instrument design. This study sets a gold standard of instrument development and has influenced the methodology of this dissertation.

Porter and colleagues (2010) developed and validated the Vanderbilt Assessment of Leadership in Education (VAL-ED) using mixed methods. The instrument, similar to

a 360 multi-rater assessment, was created to help assess principals' capacity for instructional leadership. The instrument has a consistent structure for all raters centered on the six core components of instructional leadership and six key processes used by an instructional leader.

The early development of VAL-ED focused on instructional leadership literature in the creation of individual survey items. Development efforts included a series of interviews, a qualitative bias study, and two small-scale pilot studies in order to refine the structure of the survey items as well as the directions for completing the VAL-ED. Developing the VAL-ED in this way established content validity (Porter et al., 2010).

These early efforts prepared the VAL-ED for a large-scale evaluation consisting of a nationally represented field trial with 60 school districts including more than 270 schools from various U.S. regions in order to psychometrically validate items, set standards, establish norms, and confirm that the forms for different participants were parallel. Internal consistency results from the large-scale evaluation, using Cronbach's alpha, reveal the total aggregate score is at least 0.98 reliable (Porter et al., 2010). Both an exploratory and confirmatory factor analysis were conducted. The exploratory factor analysis revealed some support for the conceptual framework for the instrument, but did not entirely conform to the design. The confirmatory factor analysis showed better results, providing goodness-of-fit indices of 0.92 or higher on all forms associated with the VAL-ED. In addition, a two-dimensional analysis of variance analyzing the survey item constructs (core components by key processes) was conducted comparing the means for different sections of the VAL-ED. The comparison of means showed a statistically significant interaction effect between sections. For instance, in one of the six core

components, Rigorous Curriculum, the mean score for the key process, Planning, differed significantly between the other five key processes. Combined with the goodness of fit indices, the mean score comparison results confirm that the VAL-ED does indeed possess construct validity.

VAL-ED is a strong instrument that can be used in elementary, middle, and high schools to rate the instructional leadership of principals. The early design of the instrument contained multiple checks for clarity and paved the way for the larger psychometric testing of the field study. Porter and colleagues (2010) should be commended for their design and validation of the VAL-ED instrument.

Hong et al. (2011) reinforce the methods of Porter and colleagues (2010) in their study reevaluating the "Teaching Design, Engineering and Technology (DET) survey." The DET measures K-12 teachers' perceptions and familiarity with engineering and researchers have used survey results to develop quality professional development in primary and secondary education. Interestingly, the construct measured by the DET was psychometrically validated as a four-factor construct during its creation in 2006 (Yasar, Baker, Kurpius, Krause, & Roberts, 2006). Hong and colleagues (2011) rationalized their decision to reevaluate the instrument by suggesting, "[i]nstrument development is an iterative process that requires continued efforts to ensure the psychometric soundness of the instrument when applied to various populations and settings" (p. 801). The initial survey validation used a sample consisting of pre-K-12 teachers from schools in Arizona only, while Hong and colleagues used results from 405 elementary school teachers in 18 different states. The major contribution of the validation study by Hong and colleagues was to test the instrument on a larger, more diverse sample.

A confirmatory factor analysis provided the following fit indices; the comparative fit index (CFI), the root mean square error of approximations (RMSEA), and the standardized root mean square residual (SRMR) for the original four-factor DET model. The four factors of the DET model are: Importance of DET, Familiarity with DET, Stereotypical Characteristics of Engineers, and Characteristics of Engineering. Results showed that one of the four factors, Stereotypical Characteristics of Engineers, did not fit any of the three indices revealed by the confirmatory factor analysis. Three of the four factors fit the CFI, but none of them fit all three indices. This confirmatory factor analysis reveals the instrument construct likely needs to be revised.

An exploratory factor analysis was also conducted revealing the need to revise different portions of the four-factor structure. It was recommended that some items be extracted from different factors to form a new fifth factor and that other items be deleted from the survey. Reliability estimates were also examined using Cronbach's alpha and though some factors had lower internal consistency, the overall reliability was acceptable.

Hong and colleagues (2011) suggested that the limited sample size of the data may have impacted the results and I concur. The original psychometric validation included teachers from pre-K-12 while Hong and colleagues used data from a wider geographic area, but only from elementary school teachers. The teacher sample is 88% female and 82% Caucasian, which is higher than national averages. The increased homogeneity of the sample may have skewed the results. Regardless, Hong et al. are correct to reexamine the DET survey instrument and their use of a confirmatory factor analysis; exploratory factor analysis and examination of internal consistency constitute good research.

Blackall et al. (2007) created and psychometrically validated the Penn State College of Medicine Professionalism Questionnaire in an effort to measure attitudes of medical students towards professional behavior. The results from the Likert-scale survey instrument are intended to assess current medical school curriculums in terms of professionalism as well as tracking attitudes towards professionalism over time (Blackall et al., 2007). In order to create the instrument, a nine-member task force was formed. Similar to Porter et al. (2010), the task force first examined the literature and then used their knowledge base to create a questionnaire. They then used a modified Delphi technique to examine the first draft of the questionnaire, which contained 6 factors and 60 items. The modified Delphi technique contained three rounds of input resulting in a reduction of survey items from 60 to 36, but maintained the six-factor structure.

The 36-item questionnaire was then completed by a combined total of 765 medical students, residents, and faculty at one institution. Construct validity was tested using a principal components analysis of inter-correlations to assess if the hypothesized six factors were psychometrically valid. Three of the six factors emerged as intended, but Kaiser's Criterion revealed seven factors with eigenvalues greater than 1.0. Factor loadings of 0.40 and higher suggest that slightly new factors should be created based the content of the items. Using the new seven-factor structure, reliability was examined using Cronbach's alpha. Six of the seven factors produced alpha reliability estimates above the generally acceptable 0.70 or better mark (Blackall et al., 2007). The psychometric evaluation concludes with a recommendation that the one factor, Respect, which had an alpha value of 0.51, be given additional items to strengthen its reliability. This study was an important first step for the validation of this instrument. Researchers

should make the recommendations based on this study, and then distribute the instrument to a wider audience outside of the home institution to increase the sample size and diversity. This will strengthen the reliability of the instrument and provide greater generalizability of the findings.

Weber et al. (2004) created and administered to college students a 5-point Likert-scale survey measuring two ideas; the self-efficacy of students towards service (SETS) and civic participation (CP). Weber et al. borrowed some items from existing SETS and CP instruments and met with experts to create additional items on their survey. An initial pilot study was conducted comprised of 23 business students from one business class. Feedback was used from this pilot study to create a finalized version of the survey.

The main study sampled 851 students from business classes at one Mid-Western university. Any items missing a response were dropped from the total. The results were divided into two groups, one for primary analysis (n = 407) and a hold back group for confirmatory analysis (n = 397). A hold back group is a portion of the sample held out of the primary analysis for use in a secondary analysis. Similar to Blackall and colleagues (2007), a principal component analysis was used to analyze the primary group. Results suggest the two-factor structure, comprised of SETS and CP items was appropriate. Cronbach's alpha values revealed that eight items, four from the SETS factor and four from the CP factor should be dropped from the questionnaire.

The confirmatory factor analysis was employed on the hold back group surveys after the eight items from the primary analysis had been removed from the data. Results were marginal and revealed that two more items should be removed from the questionnaire. After removing these items, the goodness of fit indices were adequate or

better for the Chi-square divided by degrees of freedom, 2.18, indices that compare the model to a baseline model (NFI = 0.96, CFI = 0.97, TLI = 0.94), and the Root Mean Square Error of Approximation (0.05). The result of the study was a psychometrically valid and reliable 11-item questionnaire comprised of a five-item SETS factor and a six-item CP factor. The results of this study have limited generalizability (as did the results of Blackall et al., 2007) since it was only administered at one university. Additional research should be conducted with a larger, more diverse sample.

Additional research of Likert-scale survey instruments serving a variety of purposes exists with similar methodology (Dira-Smolleck, 2004; Hays, 2008; Ponterotto, Rieger, Barret, & Sparks, 1994; Schlosser & Gelso, 2005; Shimp & Sharma, 1987). The underlying principles of instrument design and psychometric validation contain common themes I have represented in the previous four studies reviewed. First, new instruments should be designed based on the current literature in the field being investigated (Blackall et al., 2007; Porter et al., 2010; Weber et al., 2004). Second, qualitative means, such as interviews or a modified Delphi technique are necessary to clarify question design and directions (Blackall et al., 2007; Porter et al., 2010). Third, a study with a large and diverse sample should be conducted checking for content validity, usually in the form of a factor analysis, and a reliability check, usually from an analysis of Cronbach's alpha coefficients (Blackall et al., 2007; Hong et al., 2011; Porter et al., 2010; Weber et al., 2004). Fourth, survey instrument revisions are often necessary after the psychometric analysis (Blackall et al., 2007; Hong et al., 2011; Weber et al., 2004).

The current IB Self-Study Questionnaire: Diploma Programme (SSQ) has no presence of any of these four themes in either its creation or use. Clearly, the standards

set forth in *Standards for Educational and Psychological Testing* (1999) have not been met to date. I believe my research methodology, based on the research discussed in this literature review, will help elevate the SSQ as a valid and reliable Likert-scale survey instrument.

Self-Study Research

This section of the literature review shows how a self-study can be used to measure the alignment of IBO values to individual school IB programs. The IBO uses a Self-Study Questionnaire, given once every five years, as part of their program evaluation process to measure this alignment. Little evidence exists, however, that self-studies can accurately reflect the level of implementation of programs in institutions.

Since no research exists on the IB self-study process, I must turn to other self-study research, to document the efficacy of this methodology, which comes entirely from the university level. This small body of research is centered on the self-studies required by major accrediting agencies of educational institutions in North America and Europe. The IBO is careful not to call their own self-study process an accreditation, but the structure and frequency of the IBO Self-Study and major accrediting agencies' self-studies reveals many similarities. Due to the self-study parallels of the IBO and accreditation agencies, I now briefly guide you through the self-study research that comes from the university level. This review provides essential elements necessary for productive self-studies.

Van Kemenade and Hardjono (2010) conducted a mixed methods study examining the self-study process as part of accreditation in universities for applied sciences in Flanders and the Netherlands. Using both survey results from professors and

a modified Delphi study, researchers were able to develop two important conclusions. The first is that educators do see the internal added value of conducting a self-study as part of an accreditation. The second is that there are definite obstacles preventing educators from being willing to contribute to the accreditation process. Van Kemenade and Hardjono revealed that educators are more willing to participate in a self-study when the accreditation is not tied to high stakes results, such as a certification or controlling measures imposed from the accreditation agency.

Van Kemenade and Hardjono's (2010) result confirms the sound structure of the IBO self-study process, which is centered on internal school improvement rather than external oversight. The fact that the IBO is even unwilling to call the five-year cycle of the program evaluation process an accreditation shows a desire to limit the controlling features of the external organization and emphasize the function of improvement. There are no external penalties by the IBO for a school that rates itself low on the alignment of its own IBDP program to IB values. The IBO can require a site visit to a school if the program appears to be struggling based on the self-study results, but this is portrayed more as a support system than a disciplinary act. In fact, a school can request a site visit any time it feels consultation is necessary.

It is this separation between external control and improvement that Van Kemenade and Hardjono (2010) believed is essential to the authenticity of the self-study process. With external control barriers essentially removed in the current IBO structure, the alignment function of the self-study questionnaire of an organization's IBDP program to IB values is more likely to be accurate.

Two separate articles by Knowlton (2013) and Wergin (2005) discussed other key elements of the self-study accreditation process at the university level. Knowlton and Wergin both recognize the importance of broad stakeholder participation in a self-study, a clear understanding of the purpose of a self-study, the use of multiple forms of evidence for evaluation, and the creation of an action plan focused on improvement. Again, the IBO program evaluation process supports all of the above elements suggesting that the broader structure being used by the IBO fits into the current best practices of self-study research.

Wergin (2005) took his ideas a step further by citing the Council of Regional Accreditation Commission's (CRAC) *Principles of Good Practice* suggesting that educational quality in a self-study should be viewed based on the, "fulfillment of an institution's declared mission on student learning" (2003, p. 32). For an IBDP, the mission on student learning is centered on the IBO philosophy. The IB self-study process focuses on the alignment of the organization to the IBO philosophy.

Despite the limited literature on the self-study process, it is clear that self-studies can be used to add value to an organization by helping measure the alignment of a broader mission to an organization. The current structure of the IB self-study process supports the fidelity of the results by meeting the criteria deemed most valuable in the above literature. The literature review now turns to the increased student outcome benefits of the IBDP.

Increased Student Outcomes

University Success

As noted, the significance of the IB curriculum and the underlying importance in evaluating the IB Self-Study Questionnaire: Diploma Programme (SSQ) is the apparent significance of the IBDP in addressing current demands for college preparatory programs. The following research substantiates that importance through the lens of student outcomes. A major factor in the likelihood of student success in higher education is the strength of a high school curriculum (Adelman, 2006). The IBDP is one of the most challenging curricula offered at the high school level (Byrd, Ellington, Gross, Jago, & Stern, 2007; Clinedinst, Hurley, & Hawkins, 2011). The following research supports the belief that the completion of the IBDP leads students to higher GPAs in universities and the faster completion of their degrees.

One of the best designed studies of university success for IBDP students is by Shah, Dean, and Chen (2010) from the IB Global Policy and Research Department in conjunction with the University of California (UC). The study compares 1,547 IB students' performance with 5,253 non-IB students' performance in their years of undergraduate study. All students enrolled as freshman in one of the eight UC schools between 2000–2002. Demographics of IBDP students were matched with non-IB students in the categories of race, gender, economic income within $10,000 and levels of academic achievement based on a formula factoring in GPA and SAT scores. When compared to their closest peers, IB students outperformed their non-IB counterparts in University of California GPA and graduation rates.

The strengths of this study are numerous. Having three cohorts of data, 2000, 2001, and 2002 allows the research results to identify trends over time and determine consistency. Through the matching of demographics between IB and non-IB students, regression models reveal that all IB students are more successful in university in GPA and graduation rates when compared to their peers. The UC system has eight schools and is one of the top publicly funded university systems in the United States (Shah et al., 2010) making the university sample size larger than other studies with similar research aims. By investigating a large system, researchers were able to also track the UC campus selection of IB students. IB students were disproportionately more likely to attend UC Berkley and UC Los Angeles when matched with their demographic non-IB counterparts. Despite being the largest study to date examining IB student success in universities, findings are not generalizable for all IB students because the study is limited to IB students attending UC schools. Regardless, this study serves to strengthen the overall case for the IB program.

A larger, but less detailed descriptive study by Caspary (2011a) reveals that when compared to U.S. national averages, IB students are more likely to enroll in 2–4 year institutions and much more likely to graduate on-time. The sample constitutes all exam taking IB Certificate candidate students and Diploma Programme candidate students that graduated from U.S. high schools in either 2000 or 2001. These samples are 11,653 and 12,834 respectively and are compared to national statistical data from the National Student Clearinghouse (NSC) and the Integrated Postsecondary Education Data System (IPEDS). An additional element of student enrollment in selective universities is also studied revealing that IBDP candidates go to more selective universities as defined by the

2005 Carnegie Classifications of Institutions of Higher Education. One weakness of the Caspary study is the absence of matching demographic variables present in the previous Shah et al. (2010) study. Caspary is comparing two variables; U.S. students who took IB exams in 2001 and 2002 and all U.S. students in 2001 and 2002 who enrolled in 2–4 year colleges or universities recognized by the NSC.

There are numerous factors that could skew the results in favor or against IB student enrollment and graduation from higher education. For instance, Caspary (2011a) recognizes that 33% of private school diploma candidates and 7% of public school diploma candidates are international students and many are likely attending 2-4 year colleges outside of the United States. This fact likely skews the data against IB student enrollment and graduation from higher education. On the other hand, students involved in the IB program may be predisposed to college and university success, based on their motivation, previous school success, and demographics. This would skew the data in favor of IB student enrollment and graduation rates when compared to the entire U.S. student enrollment in 2–4 year college and university population of 2001–2002. This is a flaw of most studies of this magnitude and results need to be supported by smaller studies such as Shah et al. (2010) that control for more variables.

Caspary (2011b) conducted nearly the exact study in the same years with the same methods changing only the IB sample size to 1,919 IB international students who graduated from international schools in 2001 and 2002 and attended U.S. colleges and universities. Results showed that international students are even more likely to enroll in selective four-year universities and graduate than their U.S. counterparts. In much smaller studies, the findings of both Caspary studies are verified. Research by Panich

(2001) reveals that students who complete the IBDP have higher GPA's than non-IB students at the University of Florida. Duevel (1999) reveals data collected from 12 U.S. universities, including multiple Ivy League, large state universities and private universities, that students who complete the IBDP earn bachelor's degrees at a rate of 92%. A weakness of Caspary's study is that it does not factor in the largely higher socio/economic status of international students when compared to the general college population.

Edwards and Underwood (2012) examined Australian IB student experiences at two Australian universities. The research examines four areas, university transition, progression through university, academic performance in university, and post-graduate decisions. Data shows that Australian IB students who applied to these two Australian universities were more likely to be accepted, more likely to graduate on time, have similar grades when compared to non-IB students, and be less likely to have full time jobs once they completed university. There are multiple problems with the design of this study. Information was collected from two cohorts of IB students who began a 4-year program in 2007 and 2011. The sample size for one of the two universities, University C, was very small. In the first cohort, 135 students were tracked at University A and only 19 students were tracked at University C. By the 2011 cohort, these numbers grew to 138 and 82, respectively. Only the first area of the study, university transition, uses the data from the applicants from both universities. The remaining areas of the research, progression through university, academic performance, and post-graduate decisions comes only from University A. In addition, the final area, graduate decisions, is based on data collected from a voluntary survey that few IB university graduates completed.

Additional research needs to be conducted on IB student success in Australian universities, as these findings are in some cases questionable and in no cases generalizable to the Australian university population.

The final study on university success is a report by the Analytical Services Team of the Higher Education Statistics Agency (2011) in the United Kingdom. The purpose of the report was to see how IB students were performing in UK higher education institutions. The study revealed that when compared to their peers, IB students were more likely to be enrolled in top 20 UK higher education institutions, more likely to achieve first and second degree honor's degrees and to leave university with an award. It also revealed that IB students are more likely to go on to further graduate study, be employed at graduate level jobs and be in higher paid occupations. This large study, comparing 6,390 IB students to the 423,455 first time higher education institution enrollees in the 2008–2009 school year uses good methodology. The research design matches IB students to A level or equivalent non-IB students to strengthen the correlation between IB students and university success. Multiple other researchers have come to similar conclusions on IB student achievement at the university level (Burris et al., 2007; Duevel, 1999; Gazda-Grace, 2002; Gemma, 2004; Panich, 2001; Poelzer & Feldhusen, 1996).

IBDP Success in Lower Income Areas

A new body of literature is emerging supporting the success of IBDP minority and lower socioeconomic students. A qualitative grounded theory study by Kyburg, Hertberg-Davis, and Callahan (2007) samples three high poverty urban high schools over two states with IBDP and AP programs. Focus group and individual interviews from

voluntary participants were conducted and data were collected from classroom observations over a two-year period. A sound Scriven Team Approach was then used to develop the grounded theory that administrative support, high expectations and a commitment to proper external scaffolding techniques give students enrolled in the IBDP and AP programs in high poverty urban high schools the skills to be successful within these programs and be better prepared for college. Though this research is not generalizable to students outside of the sample, it serves to highlight the benefits of proper program implementation for rigorous high school programs such as the IBDP. A criticism of this study is that it lumps IBDP and AP programs together as if they are interchangeable when they are not. The IBDP requires a much broader skill-set expanding beyond the realm of academic tests, and in turn, additional research is required to determine how administrative support and external scaffolding techniques may accommodate these necessities.

Coca, Johnson, and Kelley-Kemple (2011) compliment the previous research with their mixed-methods study of the IBDP in the Chicago Public Schools (CPS) system. CPS pioneered large urban scale implementation of the IBDP in 1997 when policy makers committed to forming 13 IBDP schools. This study looked at the outcomes of graduates from 2003–2007 drawing on "quantitative data to estimate effects on college enrollment and persistence using a propensity matching technique and use student interview data…" (Coca et al., 2011, pp. 3–4). CPS students who enrolled in the IBDP had positive results similar to the previous reviewed research; they are more likely to attend a four-year college and feel academically prepared. The sample of students in this study is the real focus. The demographics of the IBDP students are representative of the

CPS system as a whole in most areas with three quarters being African American or Latino and from low socioeconomic backgrounds. Additional research into the factors that contribute to the success of these IBDP students in CPS is necessary to understand the greater role IBO can play in ensuring the academic success of low-income students in college. Coca et al. provided part of the answer as their interviews with IBDP students reveal that completing the IB diploma required a broad range of necessary skills across subjects. As a reminder, the IB program necessitates a vast array of assessments from individual courses ranging from recorded oral analysis, sophisticated lab reports, and various creative and expository writing assignments. Coca et al. suggested that part of the reason IBDP students from CPS were successful in college was because of the large skill-set they acquire during their completion of the program.

A smaller case study by Burris et al. (2007) examined the efforts of leaders at suburban South Side High School in Rockville Center, New York to increase the enrollment of the IBDP to include more students from diverse backgrounds. The IBDP at South Side High School was traditionally reserved for honors students, but the case study reveals that despite the fears of scores dropping if enrollment was opened to a wider school population, a wide range of students, including low-income minority students can be successful in the program. Scores remained at or near the world averages and the scores of students in the top 20% of all IBDP students at South Side High School actually improved as classes became more heterogeneous. Burris et al. credits the elimination of tracking within the district and an emphasis on differentiated instruction on the success of the expanded program. These results are not generalizable due to the limited sample, but

support the findings of both Coca, Johnson, and Kelley-Kemple (2011), and Kyburg, Hertberg-Davis, and Callahan (2007) mentioned above.

Together, these findings suggest that the IBDP is not simply an honors program for privileged students, but a way for schools serving low-income students to increase academic rigor while developing the necessary skills beyond test taking required for success in higher education.

The International Baccalaureate Diploma Programme Mission and Values

The latest trend in IBDP research moves away from college preparation and academic success towards a focus on the integration of IBO's mission into the curriculum (Connell, 2010; Lineham, 2013). Moving beyond test scores and college success, researchers are beginning to examine how the IBO's international values are impacting students in the classroom. The IBO mission is based on a whole-child philosophy aimed at developing compassionate lifelong-learners open to multiple cultural perspectives (Conner, 2008).

A recent case study by Lineham (2013) examined the impact of the IB mission statement on IBDP students at a Swiss international school. His research focus was centered on the "…ability of curriculum to influence the teaching and learning and the formation of values" (p. 13). Using an exploratory sequential design, Lineham conducted an initial series of small group interviews with a minor sample of IBDP students and then used their responses to create a Likert-scale survey for all IBDP students in the school. His results showed that Theory of Knowledge (TOK) and Creativity, Action, Service (CAS) requirements and humanities subjects emphasized the IBO mission statement values most. An important observation of the study is that it was completed at a diverse

international school, possibly increasing the likelihood that IBDP students are willing to accept IBO's values more than a homogeneous host country population. Further case study research in homogeneous schools would help confirm that the IBDP curriculum is, in fact, forming the values of the IBO mission. Regardless, Lineham's case study supports the idea that the IBDP is more than a college preparatory academic program.

Connell's (2010) ethnographic case study of the implementation of the IBDP in a typical Canadian high school links the IBO mission and values to a progressive student empowerment pedagogy emphasizing active and creativity focused learning. Connell discussed the difficulty associated with bringing an independent and often selective program such as the IBDP with such progressive values into a larger educational organization. Observations, interviews, and an analysis of documents revealed emergent themes highlighting the importance of IBO values in the larger organization. Connell's results repeatedly reflect back to the attributes in the IB Learner Profile and suggest that stakeholder and organizational alignment to these qualities are essential to a productive implementation of the program. Further research in this area is needed to develop more meaningful and generalizable conclusions on the effect of IBO's mission and values on students.

IB Self-Study Instrument Background

As a global organization, the IBO operates in all regions of the world. Regional offices exist and it is from the North American office that the IB Self-Study instrument originated in 1996 (Peterson, 2003). The North American office initially wanted 20% of its schools to complete the questionnaire every year, and that desire now accounts for the five-year program evaluation cycle currently in use. The self-study was initially intended

for the IBDP only, and was entitled "The Five Year Program Review." Soon after, regional offices adopted the instrument worldwide (M. Rodger, personal communication, October 7, 2011).

At least one revision of the instrument occurred in 2005, where the Standards and Practices of all three programs, IBDP, MYP and PYP, were combined onto one document. The latest revision in 2010 now has three different instruments, one for each level of the IB Program. Another notable difference between the 2005 and 2010 versions is the elimination of one section, entitled, The Student, from the 2005 questionnaire. The remaining sections (philosophy, organization, and curriculum) remain consistent. The following is a complete description of the IBDP - Programme Evaluation Guide and Self-Study Questionnaire: Diploma Programme Construct.

Programme Evaluation Guide and Self-Study Questionnaire: Diploma Programme Construct

In order to ensure an organization is consciously implementing the IBDP to its fullest potential, the Programme Evaluation Guide and Self-Study Questionnaire: Diploma Programme (Appendix A) serves to align a school to IBDP's curriculum. *Programme Standards and Practices (PSP)* is the foundational document used by schools and the IB to ensure quality and fidelity in the implementation of its programs in IB World Schools. The IBO expects schools to make a commitment towards meeting all the standards, practices and program requirements described in this document. Every five years schools must go through a program evaluation process to ensure that the school is maintaining the standards and practices of the program. The IBO works closely with the schools in their ongoing development of the program and seeks reflection involving all stakeholders with the school community.

Within the IBDP review process the IBO expects the school to determine its own assessment of how well it is implementing the program and determine major achievements and practices that need further development. The IBO is expected to analyze the schools' implementation of the program, commend outstanding implementation practices, and provide guidance on enhancing the program and point out areas that are urgently in need of improvement so as not to jeopardize the integrity of the program.

The IBO considers program evaluation an ongoing process of action and reflection supported by the schools' action plan to enhance program implementation based on the PSP document with the IB evaluation serving as verification that the self-reflection is accurate. The cyclical steps in the evaluation process include initial authorization, refinement of an action plan, the self-study process, a possible school visit, a report from the IBO and then a return to the refinement of the action plan. Figure 1 shows a visual representation of the program evaluation cycle.

The school bases its action plan on objectives from PSP. The IBO expects schools to continually develop their practices in order to achieve the standards in PSP. After each self-study evaluation, the school must alter its action plan to address the priorities revealed by the evaluation. The school must also incorporate any recommendations made in the IBO evaluation report into their new, five-year action plan and respond to matters identified by the IBO within their set time frame. The action plan helps to create an ongoing culture of reflection and improvement at a school.

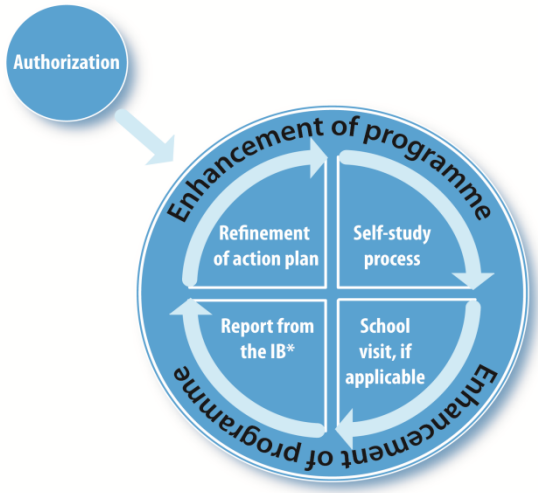


Figure 1. Evaluation overview.

Adapted from "Programme Evaluation Guide and Self-Study Questionnaire: Diploma Programme," p. 2. Copyright 2010 by IBO. Adapted with permission.

The steps of the program evaluation process include planning the year-long self-study, gathering evidence, deciding on the levels of implementation of each practice outlined in the PSP using a 4-point Likert scale, meeting the standards, submission of the self-study questionnaire and supporting documents, the evaluation visit (optional), the evaluation report and a response to the matters addressed.

Directions from the IBO on completing the IB Self-Study Questionnaire: Diploma Programme (SSQ) require that all stakeholders involved in the IBDP participate in the self-study process. School leaders determine which stakeholders complete each section and are required to provide the support necessary for productive collaboration. Support can come in many forms including scheduling group meeting times and providing access to necessary evidence needed to verify conclusions. Stakeholders collectively define the levels of implementation on the 4-point Likert scale and these descriptors must remain consistent throughout the completion of the self-study.

The SSQ consists of an initial section of demographic information about the school outlining the type of school and description of programs taught at the school. This is followed by three sections of self-reflection: philosophy, organization, and curriculum, including a few narrative and open-ended questions, and numerous four-point, Likert scale questions. Recommendations for change in each section are made if needed.

Section A: Philosophy has only one standard; that the school's educational beliefs and values reflect IB philosophy. The school's educational beliefs and values are set forth in the mission statement. The questionnaire asks about such things as the school's mission statement and parent and student perceptions of the IBDP. The questionnaire then asks the school to rate its level of implementation through a series of questions representing the standards in practice. In the philosophy section, questions are centered on such things as the IB learner profile, language learning, and community participation. Schools are required to identify and present evidence to justify conclusions and to use the agreed upon 4-point Likert scale descriptors for each of the questions. Figure 2 is taken from the Philosophy Standard A section of the IB Self-Study Questionnaire: Diploma Programme.

Practice		Level of implementation			
		Low	→		High
1.	The school's published statements of mission and philosophy align with those of the IB.				
2.	The governing body, administrative and pedagogical leadership and staff demonstrate understanding of IB philosophy.				
3.	The school community demonstrates an understanding of, and commitment to, the programmes(s).				
4.	The school develops and promotes international-mindedness and all attributes of the IB learner profile across the school community.				
5.	The school promotes responsible action within and beyond the school community.				
6.	The school promotes open communication based on understanding and respect.				
7.	The school places importance on language learning, including mother tongue, host country language and other languages.				
8.	The school participates in the IB world community.				
9.	The school supports access for students to the IB programme(s) and philosophy.				
	a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.				
	b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.				
	c. The school has strategies in place to encourage students to attempt the full diploma.				

Figure 2. Philosophy Standard A: Likert scale questionnaire.

Adapted from "Programme Evaluation Guide and Self-Study Questionnaire: Diploma Programme." p. 14–15. Copyright 2010 by IBO. Adapted with permission.

Following the Likert scale questions, a conclusion section for the philosophy standard requires stakeholders to reflect if the standard requires attention or if it is satisfactorily developed. An opportunity to list strengths, weaknesses, and past improvements is also present in the conclusion section. This three-part structure consisting first of open-ended questions, followed by Likert scale questions and ending

with a reflective conclusion section remains consistent for all of the standards in the IB Self-Study Questionnaire: Diploma Programme.

Section B: Organization begins with *Standard B1: Leadership and Structure*, which states, "The school's leadership and administrative structures ensure the implementation of the Diploma Programme" (IBO, 2010c). This section contains questions about the number of students enrolled in the IB program, requirements for acceptance into the DP, school governance, pedagogical leadership (including a DP coordinator) and educational policies at the school on language, assessment, academic honesty and special educational needs.

Standard B2: Resources and Support states, "The school's resources and support structures ensure the implementation of the Diploma Programme." The questionnaire asks about DP teachers, their collaborative planning time, exams, teaching time, funding, professional development, facilities and support for students.

Section C: Curriculum requires teachers of the same subject to meet and initially complete this section together by reaching a consensus. One representative from each subject area then meets with the DP coordinator and finally completes this section sharing the thoughts from the groups of subject area teachers. *Standard C1: Collaborative Planning* states, "collaborative planning and reflection supports the implementation of the Diploma Programme" (IBO, 2010c). Questions are asked regarding use of collaborative planning to make connections between subjects and differentiation for all students.

Standard C2: Written Curriculum states, "The school's written curriculum reflects IB philosophy" (IBO, 2010c). This section of the questionnaire assesses the

degree to which the curriculum is aligned to objectives, balanced, accessible to the community, and relevant to current world issues.

Standard C3: Teaching and Learning asks that teaching and learning reflects IB philosophy. Schools are asked to assess their level of implementation of student engagement, academic honesty, diversity of student needs, differentiation, use of technology, and multiple ways to demonstrate student learning.

Finally, *Standard C4: Assessment* insists, "assessment at the school reflects IB assessment philosophy" (IBO, 2010c). The school must provide answers to questions about examination results, assessment aligned to objectives, student feedback, recording student progress, and analysis of assessment data.

The self-study requires schools to submit supporting documents including a description of the self-study process, a school brochure containing information about the DP program, a school organization chart, school policies on language, assessment, academic honesty and special educational needs, sample student schedules for both years of the IBDP, a calendar of school deadlines for internal and external assessments, and finally, a description of the process of the supervision of extended essays.

The final step in the IB program evaluation is for schools to complete the following charts: Chart 1: Update of organization of teaching time; Chart 2: Update of Diploma Programme teaching staff, qualifications and IB-recognized professional development; Chart 3: Update of school facilities that support the implementation of the Diploma Programme; Chart 4: Update of implementation budget; Chart 5: Overview of levels of achievement of the standards in section C; Chart 6: A Community, Action, Service (CAS) program outline including context and organization of CAS and finally

and most importantly Chart 7: Update of action plan including conclusions of the self-study process.

Conclusion

Program implementation is a key component of IBDP success in high schools across the world. The Programme Evaluation Guide and Self-Study Questionnaire: Diploma Programme (Appendix A) is designed to assist schools with this implementation, but little evidence exists suggesting it makes a difference at the individual school level. It is this researcher's goal to examine this new instrument, test its validity and reliability, and confirm or make recommendations on this process. Educators from the IBO to the individual classroom teachers deserve good measurement tools to assist them in their endeavor of providing students with the best education possible.

CHAPTER 3

Methodology

The following methodology builds off of the ideas found in the literature review of studies involving Likert scale validations. I begin with an explanation of the data I used and guide the reader through the methods applied for each individual research question. This chapter contains a summary of the main ideas.

Data Collection

Data for this research came from multiple sources using existing data sets. The International Baccalaureate Organization (IBO) graciously allowed access to blank copies of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) and the anonymous Likert scale results of schools that have submitted the SSQ to date. Blank copies of the SSQ were distributed to a panel of experts as part of a modified Delphi technique centered on the first research question: *Does the IB Self-Study Questionnaire: Diploma Programme possess content validity?* The full explanation of the modified Delphi technique is described below. The IBO also granted permission to use select IBO documents, diagrams and portions of the SSQ in this study. Permission is found in Appendix B.

In addition, the IBO agreed to assist in obtaining the necessary anonymous Likert scale data for the validity and reliability analysis portions of the study. The IBO utilizes a company, Global School Services (GSS), to store large portions of their data, and the research department of IBO requested this data from GSS in the form of an Excel file on my behalf. Schools were coded by GSS to ensure the anonymity of SSQ Likert scale

results. At no time did I gain access to the names of the schools therefore guaranteeing complete anonymity of the data.

At the time of writing, there were 2,456 IBDP schools in the world (www.ibo.org) and an estimated 60% (n = 1,473) completed the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) by the time this study was conducted (M. Dean, personal communication, December 6, 2013). Due to the difficult and time consuming nature of transferring Likert scale data from individual completed SSQ's into an SPSS file, a stratified random sampling technique was used to reduce the number of schools' SSQ records that had to be transcribed to at least 192, which Kraemer and Thiemann (1987) credit as an appropriate target size. A stratified random sample was used to ensure that all IB regions were present in the sample.

Data Analysis

Question 1: Does the IB Self-Study Questionnaire: Diploma Programme possess content validity? I incorporated a modified Delphi technique using a team of five experts to evaluate the content validity of the IB Self-Study Questionnaire: Diploma Programme (SSQ). The responsibility of the experts was to determine whether the questionnaire measures what it was designed to measure. The experts consisted of three highly experienced IBDP administrators and two researchers skilled in instrument design. In order to qualify as highly experienced, an IBDP administrator must meet two criteria. First, they must have been an IB coordinator for a minimum of two years. Second, they must have served in some capacity on a minimum of two school based accreditation teams. The researchers skilled in instrument design must possess a doctorate and have experience designing an instrument in the past.

The following methods framework is based on the work of Pickard (2013). This modified Delphi study is designed to have two rounds of analysis by panel members who remain anonymous throughout the study.

Delphi process: Round 1. Each panel member received by mail and email a packet entitled Delphi materials. There are four documents included in the Delphi materials: an instruction guide including background on the IB Diploma Programme and the complete list of IBDP *Standards and Practices* (Appendix C); the Meta-Questionnaire (MQ) response sheet, consisting of several pages that ask panel members to rate the content validity of each section of the SSQ (Appendix D); a blank copy of the SSQ (Appendix A); a document entitled *What is an IB education?* (2012) providing necessary background information (Appendix E).

These materials were included to present the panel with a clear description of what the SSQ is designed to measure. The aim of the SSQ was to measure the extent to which the IBDP *Standards and Practices* had been implemented in each school. The MQ clearly outlined each standard and its subsequent practices. Panel members were instructed to look at each standard individually and then complete the corresponding section of the response sheet for that standard. There were three sections in total: Philosophy, containing 1 standard, Organization, containing 2 standards, and Curriculum, containing 4 standards.

I created the Meta Questionnaire (MQ) response sheet to assist experts in their evaluation of the content validity of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ). The MQ response sheet included individual items directly from the SSQ and then asked panel members to make a yes/no choice

regarding their view of the item in light of the following kinds of questions: Does the item successfully assess the extent to which schools are implementing the IBDP standards and practices pertaining to IB philosophy? Does the item provide information about the extent to which the school's leadership and administrative structure ensure the implementation of the Diploma Programme? and Do you think responding to this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme? Panel members were to comment on all "no" choices and explain their rationale for their decision as well as make suggestions for improvement. Panel members were also given the opportunity to comment on the design of the instrument and offer their opinion on the instrument as a whole. At the end of each response sheet section, panel members were asked to rate the content validity of the entire standard on a 5-point Likert scale ranging from "Very Poor" to "Excellent" and they were given the opportunity to make additional recommendations.

After the expert panel completed the MQ response sheet, they returned the response sheet either electronically, by scanned email attachment or via air/ground mail. I compiled a list of the total "yes" and "no" responses from each expert into one master list. Any item receiving an 80% or higher "yes" rating (4 or more of the experts responding "yes") was viewed as having content validity. Any item receiving less than an 80% "yes" rating (3 or fewer experts responding "yes") was placed in the item pool for the second round of the modified Delphi study. Comments written about instrument design and additional recommendations were included in the information sent back to the panel for the second round of the modified Delphi study.

Delphi process: Round 2. The purpose of the second round was to determine if experts agreed with one another regarding the content validity of the instrument. The goal of this modified Delphi process was to achieve as much consensus as possible on their comments in Round 1. In the second round of the modified Delphi process, I sent each expert by email the compiled list of responses that received a less than 80% "yes" rating and the accompanying anonymous comments explaining the rater's decision to give a "no" rating to that particular item. I also included any additional comments on the structure of the instrument and recommendations made by the experts. I instructed all members of the panel to review each item and to write additional statements supporting or detracting from the Round 1 opinions.

In order to avoid what Linstone and Turoff (1975) described as an excessive demand on panel members, the modified Delphi process ended after two rounds. I collected and analyzed Round 2 data for consensus using a methodology called the percent of pairwise agreement, which indicated a measure of inter-rater agreement. The results provide recommendations, such as creating new items, eliminating items, clarifying directions, or modifying the structure of the instrument. I wrote a research report describing the results and included the report in Chapter 4. The MQ and complete results are included in Appendix G. Like all parts of this research, results were shared with the IBO and I strongly encourage the IBO to consider the recommendations in future revisions of the SSQ.

Question 2: What is the factor structure of the IB Self-Study Questionnaire: Diploma Programme and is it consistent with the three IB standards (philosophy, organization, and curriculum)? One way to examine the psychometrics of a survey

instrument is to test it for validity and reliability. There are many specific forms of validity, but generally validity, "refers to the degree to which a test measures what it is supposed to measure" (Gay, Mills, & Airasian, 2009, p. 154) and it is "the most fundamental consideration in developing and evaluating tests" (AERA, 1999, p. 9).

A construct validity study examines how well an instrument measures the concepts it intends to measure (Gay et al., 2009). In essence, construct validity finds evidence that instrument items do, in fact, reflect the construct or factors established by the instrument designers. Construct validity evidence can be measured in many ways, including the use of factor analysis. A confirmatory factor analysis test can determine if the instrument design supports the intended structure (Gall, Gall, & Borg, 2003). The Likert scale portion of the IB Self-Study Questionnaire: Diploma Programme (SSQ) contains multiple questions reflecting the three IB constructs: philosophy, organization, and curriculum. The use of a confirmatory factor analysis (CFA) determined if the SSQ Likert scale questions do, in fact, cluster together in the appropriate IBDP standards contained within the constructs. There are seven standards in total, 1 for Philosophy, 2 for Organization, and 4 for Curriculum requiring seven confirmatory factor analysis tests. I used a Principal Component Analysis (PCA) for the extraction method and I used multiple rotation models, including Varimax orthogonal and Oblimin oblique rotations. I ultimately chose the rotation providing the best fit for the data to define the components. All statistical decisions were documented in a journal and a justification for each decision was provided in Chapter 4. The complete journal is available in appendix J. If the responses to the Likert scale questions correlated as hypothesized by the instrument creators, I concluded the survey has a coherent structure and this was revealed in the

goodness of fit indices. My hypothesis was that *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

There are multiple ways to determine goodness of fit with a CFA. This study used two methods: the Kaiser-Meyer-Olkin (KMO) coefficient and an individual item analysis. The CFA generated a correlation matrix representing the relationship between each variable pair. A separate CFA was conducted for each set of standards representing the three IB constructs: philosophy, organization, and curriculum. The sum total of all correlations for specific standards was then viewed as a cumulative correlation and an index score revealed how much connectedness there is between all of the variables in the model (L. Roberts, personal communication, June 9, 2013). A KMO coefficient of .8 or higher reveals a high degree of interconnectedness among the variables (Norusis, 1994). For instance, Figure 1 reveals that there are 11 Likert scale items that were purported to measure the Philosophy construct in the questionnaire. The 11 rectangles on the left side of Figure 1 represent the Practices of Philosophy Standard A and correlate to the 11 Likert scale items found in the SSQ. Figure 1 shows a large oval to represent the sum total of these 11 items, known as the latent construct, with Philosophy Standard A: School's Educational Beliefs and Values Reflect IB. I specified that responses to those 11 questions correlate to each other and, taken together, constitute a single factor. In other words, the set of 11 items is hypothesized to compose a unidimensional construct. If the specified correlations account for a large proportion of the cumulative correlation, then I can confirm the above hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.* If the correlations did not reveal a KMO coefficient of .8 or higher, then the factor structure

was deemed multidimensional, and I made recommendations for improvement by identifying the various hypothetical dimensions found to exist in the data.

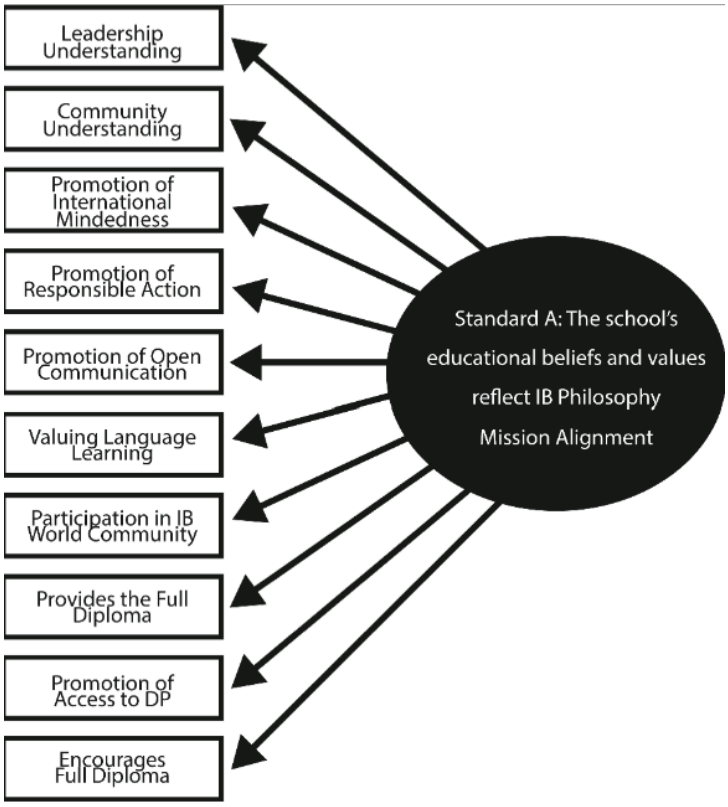


Figure 3. Standard A: Philosophy.

There was a KMO coefficient and a set of factor loadings for each of the seven constructs. More specifically, the factor analysis provided separate factor loadings for each individual item within a construct. The individual factor loadings should reach the .4 criterion level (Norusis, 1994). If individual correlations did not reveal a loading of .4 or higher than the factor structure would be adapted by either adding new factors or removing individual items from the construct. It is through the combination of the KMO coefficients and the individual item factor loadings that I was able to determine the level of complexity of the SSQ Likert scale constructs.

Question 3: What is the internal consistency reliability of the factors contained within the IB Self-Study Questionnaire: Diploma Programme?

Reliability measures the consistency of an instrument over time and the consistency within the instrument at any given time (e.g., inter-item consistency). Internal consistency is one reliability measurement, and its purpose is to determine if items on an instrument are one dimensional in nature (Salkind, 2011). Since this instrument has three separate constructs (philosophy, organization, and curriculum), I will test each section independently. Cronbach's alpha is a widely used coefficient for measuring the internal consistency of Likert scale questions (Hays, 2008). Cronbach's alpha determines, "…how all items on a test relate to all other test items and to the total test" (Gay et al., 2009, p. 150). Determining Cronbach's alpha provides psychometric evidence of the reliability of the IB Self-Study Questionnaire: Diploma Programme (SSQ) Likert scale questions. The formula used for Cronbach's alpha is:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2}\right)$$

According to L. Roberts (personal communication, July 2, 2013), a Cronbach alpha score of .7 or higher is acceptable. In addition, I also conducted an item-by-item analysis. In this process, I deleted each item one at a time. If the alpha coefficient increased in value after deleting a particular item, that item was examined qualitatively to discern whether it really belonged to this particular factor or if it would fit better with another factor. If it fit better with another factor, I recommended moving the item to that factor. For instance, a Likert scale question from the Curriculum standard C3: Teaching and Learning, might hypothetically fit better into the Likert scale questions for standard C4: Assessment. If it belonged to the original scale, perhaps the wording needed to be

revised to make it clearer. This item-by-item analysis serves as another method to strengthen the overall validation of the SSQ.

I also conducted analyses for the first order factors and the second order factors. For example, the Organization section of the SSQ contains two standards. Organization is a second order factor containing two first order factors. The Cronbach's alpha loading for all the Organization items should be greater than .7, but when looking at items associated with the standards O1 and O2 separately I would expect these first order factors to have higher Cronbach's alpha coefficients because the first order factors are more specific or pure to the concepts they are trying to measure. This first and second order analysis helped reveal the reliability of the SSQ. If the first order factors had higher Cronbach's alpha coefficients than the second order factors, then this confirms the reliable nature of the instrument (Chen, Sousa, & West, 2005).

Summary

In sum, Chapter 3 outlined the data sources, sampling methods, and research questions for this study. The methodology for each research question was explained in detail. In Chapter 4, I have presented the findings of the research questions. I kept a journal on each statistical test decision I made and explained the rationale for these decisions. Since some specific methods rely on the results of specific tests, the limitations of the methods used are explained in Chapter 4.

CHAPTER 4

Results

A modified Delphi study consisting of two rounds using five experts was conducted to establish the content validity of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ). Results indicate multiple content validity issues and suggestions for improvement.

Question 1: Does the IB Self-Study Questionnaire: Diploma Programme (SSQ) possess content validity?

Round 1 Results

Five experts consisting of three experienced IBDP administrators and two researchers skilled in instrument design completed the Round 1 Meta Questionnaire (MQ) in the Spring of 2014. I created the MQ to assist experts in their evaluation of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ).The MQ consisted of an examination of 22 different aspects of the SSQ including directions, individual questions, groups of questions, and Likert scale design. Any question marked by an expert as having a content validity issue required the expert to provide an explanation identifying the problem and to make suggestions for improvement. The MQ also contained three additional Likert scale questions asking experts to holistically rate each of the three SSQ sections: philosophy, organization, and curriculum. An explanation of these holistic ratings is provided below.

Any Meta Questionnaire (MQ) item identified as having a content validity problem by at least two of the five experts was flagged for Round 2 of the Delphi study. Surprisingly, 18 of the 22 items (81.8 %) were identified by at least two experts as having

content validity issues. Only four MQ items were eliminated for Round 2 and each had at least one expert identify a content validity issue with each of them. Interestingly, all five experts never reached consensus on any one item having a content validity issue (see Table 2 for a breakdown of Round 1 results). Seventeen of the 18 items were listed in a new document entitled Round 2 Meta Questionnaire. Item seven from the Round 1 Meta Questionnaire was divided into two separate items bringing the total number of Round 2 items to 19. All of the Round 1 expert negative response explanations were included for each item in the Round 2 Meta Questionnaire. Table 2 shows 18 of 22 items in Round 1 of the Meta Questionnaire having at least two experts identify a content validity issue.

Table 2

Round 1 Meta Questionnaire Results

Item from Round 1 Meta Questionnaire	Number of experts identifying a content validity issue
A7 (two parts)	4
A8a	4
A5	3
B1.2	3
B1.3	3
B1.4	3
B1.5	3
B2.2	3
B2.3	3
C.4	3
A2	2
A3	2
A6	2
A8b	2
A8c	2
A8d	2
B2.4	2
B2.5	2
A4*	1
B2.4*	1
C*	1
C3*	1

*Removed from second round

In addition to rating 21 different items from the SSQ, the Round 1 Meta Questionnaire (MQ) asked experts to holistically rate each of the three SSQ sections, Philosophy, Organization, and Curriculum on a 5-point Likert scale and then a space was provided for a rationale of their rating. The expert rating was based on how well they believed each section measured the extent to which the school is implementing the International Baccalaureate Diploma Program. An example of expert #2's response to the Philosophy section is provided in Figure 4. The overall ratings for each of the three sections reveal a range of opinions about the SSQ. Table 5 provides the individual and mean scores for each holistic rating. A complete list of responses can be found in Appendix F.

The first section, Philosophy, had the lowest rating with a mean of 2.4 out of 5 on the Round 1 Meta Questionnaire (MQ) Likert scale. This score corresponds to a qualitative score between poor and adequate. It is worth noting the Philosophy section was the longest of the three MQ sections and the only section that asked experts to comment on the IB Self-Study Questionnaire: Diploma Programme (SSQ) Likert scale directions and structure and the SSQ conclusions section. Likert scales and conclusion sections also exist in the Organization and Curriculum components of the SSQ, but have an identical format, so experts were only asked to comment on them one time in the MQ. Many of the content validity issues brought forth in the Philosophy holistic rating rationale express concerns about the Likert scale directions and structure as well as the format of the conclusions section. These issues will be explained in detail in the Round 2 results section and should be applied in all places they appear in the SSQ.

Overall Rating for Section 1: Philosophy

Directions: Rate how well the SSQ measures the extent to which the school is implementing the standards and practices pertaining to Philosophy. (Circle or highlight one choice)

Very poor	Poor	Adequate	Good	Excellent
1	2	3	4	5

Please give a rationale for your rating: 4

The SSQ is an exercise in self-reflection and the rating on the scale gives the school an impression for how their community feels about the different aspects of their implementation of the IBDP standards and practices. It also provides an opportunity for the school to recognize and celebrate things they do well, and provide example of their own recommendations for strengthening the programme (this will be reflected in the action plan which the school also has to submit as part of the self-review process). This helps a school work towards a plan of continuous improvement, which is very healthy for schools.

Figure 4. Round 1 meta-questionnaire: Expert 2 holistic rating of SSQ philosophy section.

The second section, Organization, averaged only slightly higher than the first section, with a 2.6 out of 5 on the Likert Scale (Table 3). This score corresponds to a qualitative score between poor and adequate. Comments suggest a mismatch between the intent of the items in this section and the purpose of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) as a whole. Three items ask school leaders to list different aspects of the organizational structures of their school, but do not ask schools to comment on the quality of these structures. The identification of this mismatch between what items are asking and the purpose of the instrument by multiple experts reveals a broad content validity issue that is more specifically addressed in the Round 2 results.

Table 3

Round 1 Meta Questionnaire Holistic Rating Scale Mean Score Breakdown

	Holistic rating scale results: 5-point Likert scale		
	Philosophy	Organization	Curriculum
Expert 1	1	1	2
Expert 2	4	2	3
Expert 3	4	5	5
Expert 4	1	1	3
Expert 5	2	4	3
Mean score	2.4	2.6	3.2

The final section, Curriculum, had the highest average rating of a 3.2 out of 5 on the Likert Scale. This corresponds to a qualitative score slightly higher than adequate. It is also the shortest of the three MQ sections. In the feedback the experts expressed concern about the curriculum SSQ questions being too general to provide school leaders with adequate information in determining ways to improve their IB Diploma Programme implementation. One expert suggested specific evidence of classroom practices is necessary to effectively study curriculum implementation.

The three overall rating questions at the end of each section of the modified Delphi study Meta Questionnaire (MQ) provided insight into the larger over-arching content validity issues in the SSQ. The content validity issues are mainly with the SSQ Likert scale directions and structure, the conclusions sections found at the end of each of the three sections, the mismatch between what the information items are asking and the actual purpose of the SSQ, and the overly general nature of many of the SSQ questions. These issues are examined more specifically in the following Round 2 results. A sample MQ Round 1 Response sheet can be found in Appendix F.

Round 2 Results

The second round of the modified Delphi study took place in June 2014. Five experts were given a Round 2 Meta Questionnaire containing each item receiving two or more negative responses in Round 1 and the subsequent comments associated with them. There were a total of 19 items (A7 was divided into two items) on the Round 2 Meta Questionnaire. Directions stated that experts were to reread the item and then read the Round 1 comments associated with them in order to reconsider each item in light of the ideas expressed by other Delphi team members. After considering other Delphi team member responses, experts were asked to provide their own feedback by adding additional comments and possibly recommending changes to the IB Self-Study Questionnaire: Diploma Program (SSQ) prompt. A sample Round 2 Meta Questionnaire response sheet can be found in Appendix G.

A methodology called the percent of pairwise reliabilities was used and was based on the fact that there were 10 possible pairwise agreements among the five experts. Table 4 shows the 10 pairings and their inter-rater agreement.

Table 4

Round 2 Percent of Pairwise Inter-Rater Agreement

Pairing	Inter-rater agreement (%)
Expert 1 with Expert 2	63
Expert 1 with Expert 3	73
Expert 1 with Expert 4	95
Expert 1 with Expert 5	47
Expert 2 with Expert 3	58
Expert 2 with Expert 4	58
Expert 2 with Expert 5	74
Expert 3 with Expert 4	79
Expert 3 with Expert 5	53
Expert 4 with Expert 5	42

The pairing method was used on all 19 items separately. For a complete list of Round 2 expert inter-rater agreement see appendix H. Table 5 lists each IB Self-Study Questionnaire: Diploma Programme (SSQ) item found in Round 2 of the Delphi study and the percentage of inter-rater agreement found for each item. Of the 19 items analyzed by the five experts, data revealed six items with 100% agreement for revisions to the instrument, five of the items with 60% agreement, all skewed towards revisions, and 40% agreement for eight of the items. Only items A2 and B2.4 are skewed positively toward the item suggesting they do not need revision. The other six items with 40% pairwise agreement are all skewed negatively in favor of revision. Complete resultspairwise agreement results can be found in Appendix H.

Table 5

Round 2 Item Analysis Showing Inter-Rater Agreement

Item analysis using pairwise method	
SSQ item	Agree (%)
A2	40 *
A3	40
A5	40
A6	60
A7a	100
A7b	100
A8a	100
A8b	40
A8c	40
A8d	40
B1.2	60
B1.3	100
B1.4	100
B1.5	100
B2.2	60
B2.3	60
B2.4	40*
B2.5	60
C4	40

*Positively skewed toward having content validity

When holistically examining the modified Delphi study Round 1 and Round 2 data, it is evident that there are content validity issues with the IB Self-Study Questionnaire: Diploma Programme (SSQ). A true Delphi study continues until consensus is reached on each item, but since this modified Delphi study was only two rounds consensus was not reached on each item. The following results focus on the six items in the SSQ where consensus was reached with clear recommendations for revision.

Items with 100% Consensus for Revision

The greatest expert consensus in responses occurred on six of the 19 items in Round 2. Experts agreed 100% of the time that these six items need revision. The first of the six revisions is centered on the Likert scale directions, referred to as A7a in the complete pairing method results found in Appendix H and in Table 5.

Directions for completing the 4-point Likert scales found in the IB Self-Study Questionnaire: Diploma Programme (SSQ) require schools to set their own descriptors for each of the four points. The directions read, "The school must develop descriptors showing gradation from low level of implementation to high level of implementation. In order to ensure consistency, it is essential that all participants in this process have a common understanding of these descriptors" (p. 5 IBO Program Evaluation Guide and Self-Study Questionnaire: Diploma Programme). The expert panel members unanimously agree that descriptive anchors must be provided for each response category by the International Baccalaureate Organization (IBO) to create consistency within schools over time and among schools across the world. Expert #2 wrote in the round 2 feedback: "I agree with the responses about the need for the IB to provide support to calibrate and operationalize the scale so there is a common understanding among the stakeholders to

increase the validity of the results. A suggestion would be for the IB should provide the descriptors."

The second area experts unanimously identified for revision is the listing of the practices for each Likert scale rating. Many of the practices listed are double-barreled questions, meaning they combine two or more ideas in a single item. For instance, practice #7 listed in the Philosophy standard Likert scale reads *The school places importance on language learning, including mother tongue, host country language and other languages.* Leadership team members will run into a rating problem if the school's importance on mother tongue language is different than that of host country language and other languages. Double-barreled questions are a common problematic issue in instrument design (Saris & Gallhofer, 2007). The double-barreled problem was consistent throughout the Likert scales found in each of the three sections of the IB Self-Study Questionnaire: Diploma Programme (SSQ). All five Delphi experts recommended fixing the double-barreled items by separating different ideas into different Likert scale items to increase the validity of the SSQ.

Delphi team experts also agreed that the scale in the *Conclusions of the Standard* section needs revision. In its current state, seen in Table 6, there are only two options for school members to holistically rate their IB program in light of each of the three standards. Suggestions by experts included the addition "of at least one middle option…like 'requires some attention'"(Expert 3) and a summative narrative response option to explain the reason for the rating given (Expert 1). Expert 5 explained, "The Y/N categorical response options can not sufficiently assess where the school is currently at in terms of its progress toward an implementation of IB philosophy with high fidelity."

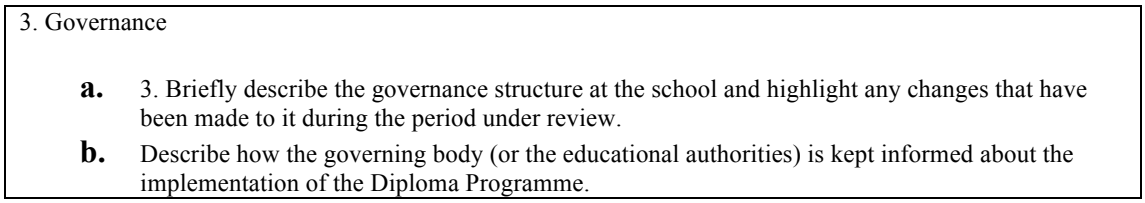
Table 6

Conclusion of Standard Rating Scale

Standard A	Requires significant attention	Shows satisfactory development
The school's educational beliefs and values reflect IB philosophy.		

Note. Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 15. Copyright 2010 by IBO. Adapted with permission.

The fourth item with Round 2 consensus for revision is from the Organization Standard B1: Leadership and Structure, and is based on governance. Item B1.3 from the IB Self-Study Questionnaire: Diploma Programme (SSQ) is found in Figure 5.


3. Governance

a. 3. Briefly describe the governance structure at the school and highlight any changes that have been made to it during the period under review.

b. Describe how the governing body (or the educational authorities) is kept informed about the implementation of the Diploma Programme.

Figure 5. SSQ Item B1.3 governance.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 17. Copyright 2010 by IBO. Adapted with permission.

An emergent theme from the Delphi experts found in this and the following two items is the perceived mismatch between what the information items are asking and the actual purpose of the SSQ. Expert 1 writes, "In its current form, from an action planning perspective, I believe this question does not help the self-study team because it lacks qualitative focus and specificity and is not necessarily tied to matters of IB implementation. The rationale for the question itself should be rethought." The purpose of the self-study evaluation process is to measure the level of implementation of the IBDP's core components in a given school. Once completed, the IB Self-Study results

serve as the basis for a five-year Action Plan designed to improve the program. Multiple experts on many Round 2 items identified the mismatch between the information the items are asking for and the actual purpose of the SSQ.

A similar issue arises in item B1.4 listed in Figure 6 below. Experts agreed that answering this item provides specific logistical information to school leaders and the IBO, but it does not provide an explanation for the current structure. Expert 1 writes, "The focus of the multiple part question is on current leadership structures and their respective responsibilities, not on the effectiveness of those structures/ roles in implementing the IBDP- without this data ascertaining how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme is not possible."

4. Pedagogical leadership
A. Describe any changes in the structure and responsibilities of the pedagogical leadership team in charge of the implementation of the Diploma Programme that have occurred during the period under review and why they were implemented.
B. If the Diploma Programme coordinator has other responsibilities besides the Diploma Programme coordination, indicate:
    i. additional responsibilities
    ii. percentage of his/her weekly schedule that is devoted to complying with his/her IB responsibilities as coordinator. (Indicate the whole weekly schedule of the coordinator at school, for example Mondays to Fridays from 9 am to 3.30 pm.)
C. If the school offers online Diploma Programme courses, describe the role of the site-based coordinator. Indicate what other responsibilities he/she has at the school.

Figure 6. SSQ Item B1.4.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 18. Copyright 2010 by IBO. Adapted with permission.

In Figure 6, part A asks school leaders to explain why changes were made in organizational structure, but parts B and C only ask about the structure itself. If the school has not changed its pedagogical leadership structure in the past five years, the

team filling out the Organization section of the self-study does not have an opportunity to explain why their structure is in its current format. At a further point in the self-study, a Likert-scale item asked the team filling out the Organization section of the self-study to rate the level of implementation for the structure surrounding the Diploma Programme Coordinator. Experts agreed, in this example, that accurately determining the level of implementation for the Diplomma Programme Coordinator is not possible without an understanding of the rationale for the current structure. In both B1.3 and B1.4, Expert 3 pointed to the fact that items ask "what" is occurring in a school's IB program, but that items do not ask "why" school leadership is behaving in this way.

Item B1.5 found in Figure 7 focuses on the revision of school policies and experts agreed the item is focusing on the wrong information. Expert 4 agreed with the Round 1 comment that, "The focus of the multiple part question is on processes used to produce and revise policy documents not on the effectiveness of the leadership and administrative structure that may or may not be behind those processes. Again the question posed does not provide data that will allow determination of how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme." Expert 5 said the focus, "needs to capture both the process of policy making and the effectiveness of policy implementation."

5. Policies
Describe the process of revising the language, assessment, academic honesty and special educational needs policies at the school, including who was involved. Indicate when they were last revised.

a. Language policy
b. Assessment policy
c. Academic honesty policy
d. Special educational needs policy

Figure 7. SSQ Item B1.5.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 18–19. Copyright 2010 by IBO. Adapted with permission.

Experts perceived a mismatch between the information the items are asking school leaders to provide and the purpose of the SSQ. This became evident in the data from the Round 2 Meta Questionnaire feedback and appeared most commonly in the following items: A8b- Conclusion of the Standard Major Achievements, A8c- Conclusion of the Standard Progress, A8d- Conclusions of the Standard Further Development, B1:3- Governance, B1:4- Pedagogical Leadership, B1:5- Policies, B2:2- Staff and Class Size, B2:3- Collaborative Planning and Reflection, B2:4- Administration of Exams, B2:5- Teaching Time, C4- Evaluation of Exam Results. It is important to remind the reader that consensus on this issue was only reached by the Delphi team on items B1:3, B1:4, and B1:5. The consensus was that these were items in need of revision.

The recommendation is to review these items that mainly ask "what" the norm is at the school and to provide an opportunity for schools to give a narrative response explaining "why" the current systems are in place. It is my hope that the addition of an explanatory component in these items will help bridge the understanding of the current level of Diploma Programme implementation, leading to greater accuracy in the subsequent Likert scale ratings and as a result, more focused five-year action plans.

Additional Themes

Another emergent theme revealed by Round 2 expert feedback was that some questions were too general to be useful to those filling out the SSQ. A common recommendation made by experts was to require specific evidence to support item answers to increase understanding of the standards and practices. A clear example of this is seen in Organization Standard B2: Resources and Support, Item 3 seen in Figure 8.

b. Collaborative planning and reflection

Identify the types and objectives of meetings that support the Diploma Programme implementation. Identify participants (for example, Diploma Programme subject teachers per subject group, all Diploma Programme subject and TOK teachers and CAS coordinators, Diploma Programme leadership team) and frequency. Use the table below.

Name of meeting	Who attends	Frequency of meeting	Objectives

Figure 8. SSQ Item B2.3.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 21. Copyright 2010 by IBO. Adapted with permission.

Four out of five Delphi experts reached consensus on Item 3. Experts agreed that meeting minutes from multiple collaborative meetings, including cross-disciplinary meetings, would be helpful to determine the level of implementation in this area. Four out of five experts also agreed that in Organization Standard B2:5 seen in Figure 9 that

additional opportunities should be provided to include time for online components that may add to class time as well as planned interruptions that detract from class time.

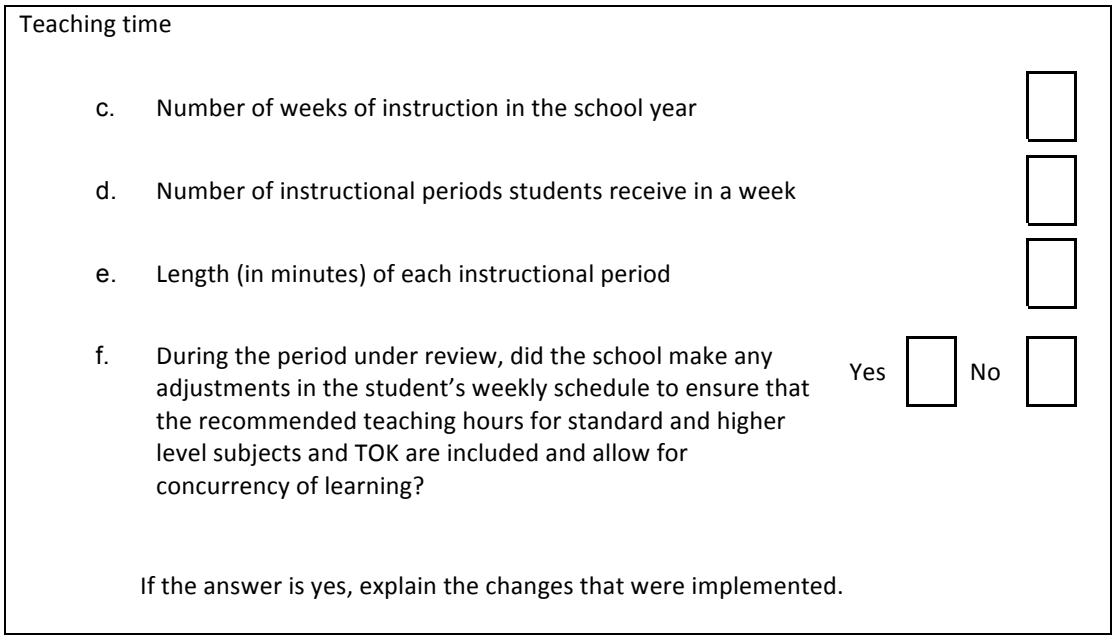


Figure 9. SSQ Item B2.5.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 22. Copyright 2010 by IBO. Adapted with permission.

The two examples above show a desire of the Delphi team to increase the depth of understanding generated by items found in the SSQ by requiring specific evidence to anchor the general nature of the current SSQ items. Delphi experts also suggested evidence be provided when answering the following items: A5- Parent Perception, A6 – Student Perception, B1:2 – Enrollment, B1:3 – Governance, and B2:2- Staff and Class Size. Similar to the previous theme addressing the mismatch of the questions and purpose, providing evidence for items deemed too general by Delphi experts should help strengthen the self-study process and in turn, the larger IB programme evaluation model. It is important to remind the reader that true consensus was not reached on the issue of the general nature of the items listed above. Despite the fact that consensus was not

reached by Delphi team members, the recommendation to provide evidence appeared often and is worth consideration during future instrument revision.

Data Analysis for Research Questions 2 and 3

The International Baccalaureate Organization (IBO) provided an anonymous stratified random sample of International Baccalaureate Self-Study: Diploma Programme (SSQ) Likert scale data from 223 schools representing all IB regions. The 223 schools completed the current 2010 version of the SSQ as part of their five-year program evaluation cycle. The data were provided in a Microsoft Excel Spreadsheet and then converted into Statistical Package for the Social Sciences software (SPSS) for analysis. There are seven different sections in the SSQ with response options composed of Likert scales, each section represents one of the seven International Baccalaureate (IB) Standards. Each section uses Likert scales with four possible rating choices. A full description of the structure of the SSQ is located in Chapter 2: Literature Review and the full SSQ is available in Appendix A.

Initial general statistical analysis of the data provided important information regarding the seven Likert scales found in the SSQ. First, as expected, all data values entered were within the appropriate range of 1 (low) to 4 (high) on the Likert scales. Second, most items have a mean score between 3 and 4, showing that respondents felt their school was meeting the standards. The exception is Standard C1: Curriculum Collaborative Planning, which had mean scores between 2 and 3, midway between a low and high rating.

A clear pattern of missing variables unexpectedly emerged from the general statistics. The designers of the SSQ Likert Scales constructed some items with a general

question followed by a set of sub-questions. This seems to have caused a large number of schools to not answer the required general question and only answer the sub-questions.

The reason for the Likert scale construction having a general question followed by a set of sub-questions is clear when viewed through the lens of the International Baccalaureate Organization (IBO) Standards and Practices. The IBO offers three programs; the Diploma Programme (DP) for high school students, the Middle Years Programme (MYP) for middle school students, and the Primary Years Programme (PYP) for elementary school students. All three programs share the same Standards and Practices, but each program has additional Requirements independent of each other. Consider the example of the Likert scale shown below in Figure 10, which shows Practice A9 in the Philosophy Standard of the SSQ. The DP, MYP and PYP all share Practice A9: *The school supports access for students to the IB programme(s) and philosophy*, but only the DP has the three Requirements listed as sub questions in Figure 10.

Practice		Level of implementation			
		Low	→		High
9.	The school supports access for students to the IB programme(s) and philosophy.				
	d. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.				
	e. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.				
	f. The school has strategies in place to encourage students to attempt the full diploma.				

Figure 10. SSQ Philosophy Standard A: Likert scale excerpt.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 14-15. Copyright 2010 by IBO. Adapted with permission.

When viewing the results of the Philosophy Standard A data set (n = 223) in Table 7, it is clear that Practice A9 has an unusually high number of missing responses; 45 missing responses in total. The issue of general questions preceding sub-questions containing missing data is consistent throughout the seven Likert Scales examined for each of the seven IB Standards. The same pattern can be seen eleven more times over the six other Likert Scales. Referred to from here on as High Miss variables, these missing responses reveal a structural flaw not previously identified in the modified Delphi Study used for Research Question 1 in this study.

Table 7

General Statistics of Philosophy Standard A Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
A1	223	0	3.70	.54	1	4
A2	223	0	3.42	.62	1	4
A3	223	0	3.30	.65	1	4
A4	223	0	3.22	.65	1	4
A5	223	0	3.61	.54	2	4
A6	223	0	3.67	.49	2	4
A7	223	0	3.47	.63	2	4
A8	223	0	2.99	.76	1	4
A9	178	45	3.76	.45	2	4
A9a	221	2	3.85	.42	1	4
A9b	222	1	3.76	.50	2	4
A9c	223	0	3.79	.42	2	4

A statistical problem presents itself with the presence of the High Miss variables around the factor analysis methodology. The issue is determining how to maximize the sample size and subsequently maximizing the statistical power in light of the High Miss variables. Kraemer and Thiemann (1987) suggest 192 as an appropriate psychometric target size, but seven of the twelve High Miss variables have sample sizes below this number.

In order to address the High Miss variable problem I analyzed the data in two ways. First, I excluded the High Miss variables from the extraction analysis and determined the results. Then, I ran the same analysis again, but included the High Miss variables by substituting the missing data with means for that variable based on the non-missing sample of cases.

Question 2: What is the factor structure of the IB Self-Study Questionnaire: Diploma Programme and is it consistent with the three IB standards: Philosophy, Organization and Curriculum?

In order to determine the factor structure of the International Baccalaureate Self-Study: Diploma Programme Questionnaire (SSQ), I analyzed the data of 223 completed SSQs by examining the seven Likert scale responses from each school. Each of the seven Likert scale data sets corresponds to one of the seven International Baccaluareate Standards. For each standard, I conducted six separate factor analysis solutions and maintained a journal log of the results.

Philosophy Standard A: The school's educational beliefs and values reflect IB Philosophy

Table 10 provides the journal log for Philosophy Standard A. The journal log reveals specific information regarding the sample size, the exclusion or inclusion of the High Miss variables, the type of extraction, the type of rotation, the Kaiser-Meyer-Olkin (KMO) coefficient, the percentage of variance explained, and a description of the component loadings found in each structure matrix table generated by SPSS. The journal log served to keep the large amounts of data organized and helped me decide which solution best supported the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

Table 8

Journal Log of Philosophy Standard A

Standard *n*	HighMiss	Extraction	Rotation	KMO	Variance explained (%)	Component table
A *n* = 221	excluded	Principal Components	None	.80	53	3 components
A *n* = 221	excluded	Principal Components	Varimax Orthogonal	.80	53	3 distinct sub components
A *n* = 221	excluded	Principal Components	Oblimin Oblique	.80	53	A6 loads on 2 components
A *n* = 223	Included, replaced missing with means	Principal Components	None	.81	52	3 components
A *n* = 223	Included, replaced missing with means	Principal Components	Varimax Orthogonal	.81	52	A2 loads on 2 components, A9 did not load on any component
A *n* = 223	Included, replaced missing with means	Principal Components	Oblimin Oblique	.82	52	A9a did not load on any component.

For Philosophy Standard A, the Principal Component Analysis (PCA) using a Varimax orthogonal rotation excluding the High Miss variables produced the best solution. The KMO coefficient was .80 showing an overall consistency between the 11 Likert scale items supporting the above hypothesis. Table 9 shows that when the Varimax rotation was applied, three separate subcomponents emerged with inter-item consistency. When viewed in the Table 9 groupings, the subcomponents represent the following Philosophy Standard A concepts:

a. The school promotes international mindedness, and commitment to the IB world community (Items 1-4, 8).

b. The school promotes communication, understanding, respect and responsible action (Items 5-7).

c. The school supports access to the Diploma Programme (Items 9a-9c).

Table 9

Rotated Component Matrix for Philosophy Standard A

	Component		
	1	2	3
A4	.703		
A3	.672		
A8	.668		
A2	.656		
A1	.473		
A6		.754	
A5		.718	
A7		.572	
A9b			.775
A9c			.688
A9a			.577

Note. Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

The three sub items, A9a-c, for the excluded High Miss variable A9 were grouped together in component 3. The fact that these three sub items loaded on the same component contribute to the idea that it may not be necessary for schools to respond to item A9 in future versions of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ). Through the combination of the KMO coefficient of .80 and the component loadings in Table 9, the factor analysis of Philosophy Standard A

confirms the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

The remaining six Standards follow the same process as Philosophy Standard A. A journal log was created for each standard mirroring the structure of Table 10. After reviewing the six possible solutions for the standard, I chose the most parsimonious solution. The full journal documenting the six solutions for each of the remaining six Standards can be found in Appendix J. I considered both the KMO coefficient and component loadings resulting from the orthogonal and oblique rotations to confirm or reject the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

Organization Standard B1: Leadership and Structure

Organization Standard B1 contains a Likert scale containing 13 items. Practice B1.5 is a High Miss variable with 59 schools not responding to the item. B1.5 is the least responded to item on any of the seven Likert scales found in the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) data set. Table 10 provides general statistics of the data set for Organization Standard B1.

Table 10

General Statistics of IB Standard B1 Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
B11	220	3	3.57	.60	1	4
B12	219	4	3.72	.49	1	4
B13	220	3	3.73	.46	2	4
B14	220	3	3.62	.58	2	4
B15	164	59	3.57	.53	2	4
B15a	216	7	3.54	.65	1	4
B15b	220	3	3.35	.73	1	4
B15c	219	4	3.17	.87	1	4
B15d	220	3	3.48	.64	1	4
B15e	219	4	3.60	.56	2	4
B15f	220	3	3.88	.34	2	4
B16	220	3	3.64	.59	1	4
B17	220	3	3.35	.69	1	4

Two of the six solutions for the factor analysis provided a clear solution, the principal component analysis (PCA) extraction combined with the Oblimin oblique rotation provided the best solution for both excluded and included missing variables replaced with means. Table 11 shows the similarity between the solutions with the excluded and included missing variables with means. Both solutions have KMO coefficients above .80 and contain two distinct sub components for items to load.

Table 11

Journal Log Excerpt of Clear Solutions for Organization Standard B1

Standard *n*	HighMiss	Extraction	Rotation	KMO	% of Variance Explained	Component Table
B1 *n* = 213	Excluded	Principal Components	Oblimin Oblique	.88	53%	2 distinct sub components
B1 *n* = 220	Included, replaced missing with means	Principal Components	Oblimin Oblique	.89	50%	2 distinct sub components

I chose the solution excluding the High Miss variables because individual items on the component matrix loaded with higher component numbers when compared to the component matrix replacing the High Miss variables with means. Table 12 shows the two separate subcomponents of Organization Standard B1. When viewed in the Table 12 groupings, the subcomponents represent the following Organization Standard B1 concepts:

1. The school develops policies consistent with IB expectations.
2. The school has a leadership structure that supports the implementation of the program.

Interestingly, the Requirement B1:5f loaded in component 2 when all other Requirements loaded in component 1. When examining Requirements B1:5a-f, the concept of assessment appears twice; once in B1:5d and again in B1:5f. Table 12 shows us that Requirement B1:5d has the highest loading of any B1 item and B1:5f has the lowest component 2 loading. Consideration should be given as to the differences between the two items, B1:5d and B1:5f to determine if both are necessary. Despite the loading of B1:5f in component 2, through the combination of the KMO coefficient of .88 and the

component loadings in Table 12, the factor analysis of Organization Standard B1 confirms the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

Table 12

Rotated Component Matrix for Organization Standard B1

	Component	
	1	2
B15d	.855	
B15e	.804	
B15c	.713	
B15b	.707	
B15a	.477	
B11	.423	
B14		.821
B17		.745
B12		.733
B13		.590
B16		.459
B15f		.438

Note. Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Organization Standard B2: Resources and Support

Organization Standard B2: Resources and Support is by far the most complex of the seven standards. Table 13 reveals Organization Standard B2 contains six High Miss variables due to the structure of the instrument. B21, B23, B25, B26, B29, and B210 represent six Practices that contain International Baccalaureate Diploma Programme (IBDP) Requirements. Any item that contains an IBDP Requirement in the SSQ constitutes a High Miss variable. The other six IBDP Standards only include one High

Miss variable each. As a result, the factor analysis results for Organization Standard B2 are more complex than the other six standards.

Table 13

General Statistics of Organization Standard B2 Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
B21	197	26	3.48	.66	1	4
B21a	223	0	3.35	.83	1	4
B21b	223	0	3.62	.64	1	4
B22	223	0	3.79	.44	2	4
B23	202	21	3.53	.67	1	4
B23a	223	0	3.53	.68	1	4
B24	222	1	2.98	.82	1	4
B25	192	31	3.46	.60	2	4
B25a	223	0	3.52	.59	2	4
B25b	223	0	3.48	.64	1	4
B25c	223	0	3.90	.39	1	4
B26	191	32	3.15	.85	1	4
B26a	222	1	3.20	.79	1	4
B27	223	0	3.39	.62	2	4
B28	222	1	3.30	.73	1	4
B29	195	28	3.73	.47	2	4
B29a	222	1	3.74	.47	2	4
B210	192	31	3.68	.49	2	4
B210a	222	1	3.67	.54	2	4
B210b	223	0	3.68	.52	2	4
B210c	223	0	3.68	.51	2	4
B211	222	1	3.14	.72	1	4
B212	221	2	3.44	.76	1	4

The principal component analysis (PCA) excluding High Miss variables with Varimax rotation produced the most parsimonious solution for Organization Standard B2. The KMO coefficient was high at .85 and the percentage of variance explained was also high at 65%. When High Miss variables were excluded, five components with

eigenvalues greater than 1 appeared in the SPSS matrixes. The psychometric norm is to consider any component with an eigenvalue greater than 1 to be a legitimate component. A component with an eigenvalue less that one is usually considered to be simply a collection of random variation in the data and not a legitimate component. When High Miss variables were replaced with mean scores, six components with eigenvalues greater than 1 appeared. Table 14 shows the only clean statistical loading of the items into individual components.

Statistically, the factor analysis of Organization Standard B2 is not consistent with the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.* The statistics bring to light multiple issues worthy of consideration. First, although the items load on only one component each, they do not group together as one would expect, with the exception of component 3. A closer look at Table 14 reveals some problematic issues. Component 3 serves as model of how the matrix should load for the remaining four components. In component 3, IBDP Requirements B210a, B210b, and B210c all load together as they conceptually center on the idea of the school schedule. Conceptual loadings such as this have been consistent with the findings of the other standards.

Table 14

Rotated Component Matrix for Organization Standard B2

	Component				
	1	2	3	4	5
B26a	.711				
B27	.708				
B24	.626				
B211	.619				
B28	.615				
B25a	.432				
B21a		.769			
B21b		.744			
B25b		.584			
B212		.477			
B210b			.783		
B210a			.741		
B210c			.601		
B25c				.851	
B23a				.641	
B22					.826
B29a					.592

Note. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

When looking at other conceptual groupings in Table 14 for Organizational Standard B2, particularly the IBDP Requirements, items load across components when they should be grouped together. For instance, IBDP Requirements B25a, B25b, and B25c load in three different components; component 1, component 2 and component 4.

Figure 11 provides a description of Practice 5 and the three IBDP Requirements linked to Practice 5. Requirements B25a, B25b, and B25c conceptually center on the broad idea of adequate facilities. Theoretically the three Requirements should load on the

same component with any other items from section B2 that also center on the broad idea of adequate facilities.

B25. The physical and virtual learning environments, facilities, resources and specialized equipment support the implementation of the programme(s).

Requirements for the Diploma Programme

a. The laboratories and studios needed for group 4 and group 6 subjects provide safe and effective learning environments.

b. There are appropriate information technology facilities to support the implementation of the programme.

Figure 11. Standard B25.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 23. Copyright 2010 by IBO. Adapted with permission.

Another issue is item B25c shown in Figure 11. Although item B25c refers to facilities in its description, it is also more specifically addressing the concept of test security. Both the Varimax and Oblimin rotation matrixes that included High Miss variables by replacing them with mean scores loaded item B25c separately in its own component.

Curriculum Standard C1: Collaborative Planning

Curriculum Standard C1: Collaborative Planning represents the ideal factor loading for a Likert scale. Curriculum Standard C1 loaded on a single component, therefore, it comprises a one-dimensional construct. Table 15 reveals the lowest mean scores of any of the seven standards indicating that school raters commonly identify Collaborative Planning as an area in need of improvement.

Table 15

General Statistics of Curriculum Standard C1 Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
C11	171	52	3.07	.71	1	4
C11a	220	3	2.53	.71	1	4
C11b	221	2	2.64	.71	1	4
C12	221	2	2.81	.84	1	4
C13	221	2	2.87	.69	1	4
C14	222	1	2.92	.74	1	4
C15	221	2	3.22	.67	1	4
C16	222	1	2.97	.72	1	4
C17	222	1	3.27	.67	1	4
C18	221	2	3.06	.78	1	4
C19	222	1	3.05	.79	1	4

Since Curriculum Standard C1 loaded on one component, as shown in Table 16, no rotation could be applied. Table 16 shows the matrix excluding the High Miss variables (n = 219), which produced a KMO coefficient of .92 and a percentage of variance explained at 57%. The factor analysis of Curriculum Standard C1 is consistent with the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

Table 16

Component Matrix for Organization Standard C1

	Component
	1
C13	.803
C12	.797
C17	.777
C11b	.768
C19	.765
C15	.763
C16	.754
C18	.731
C14	.699
C11a	.664

Note. Extraction Method: Principal Component Analysis.

Curriculum Standard C2: Written Curriculum

The Curriculum Standard C2: Written Curriculum Likert scale data loads on two components when excluding the High Miss variable C21. Table 17 shows 52 schools failed to respond to the first item, C21. Table 18 shows the excluded High Miss variable matrix loading (n = 213) on two components using a principal component analysis (PCA) with an Oblimin rotation. The KMO coefficient is .90 and the percentage of variance explained is 54%. When viewed in the Table 18 groupings, the components represent the following Curriculum Standard C2 concepts:

1. Alignment - The written curriculum is aligned with the IBDP curriculum and the local organization.

2. Student Growth - The written curriculum positively impacts student growth.

Table 17

General Statistics of Curriculum Standard C2 Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
C21	171	52	3.72	.50	1	4
C21a	221	2	3.64	.52	1	4
C21b	222	1	3.47	.64	1	4
C21c	219	4	3.37	.71	1	4
C21d	222	1	3.64	.66	1	4
C22	220	3	3.44	.70	1	4
C23	222	1	3.45	.61	1	4
C24	221	2	3.51	.60	1	4
C25	221	2	3.23	.62	1	4
C26	222	1	3.44	.55	1	4
C27	221	2	3.47	.55	1	4
C28	219	4	3.43	.57	1	4
C29	221	2	3.58	.61	1	4
C210	222	1	3.36	.66	1	4
C211	221	2	3.33	.62	1	4

Table 18 also reveals that the four Requirements for Practice C21: C21a, C21b, C21c and C21d appropriately load on the first component. This factor loading helps show the interconnectedness of the four items and a sound structural design for these items on the Likert scale. The C21 item descriptions are provided in Figure 12.

C21. The written curriculum is comprehensive and aligns with the requirements of the programme(s).

Requirements for the Diploma Programme

a. The curriculum fulfills the aims and objectives of each subject group and the core.

b. The curriculum facilitates concurrency of learning.

c. The curriculum is balanced so that students are provided with a reasonable choice of subjects.

Figure 12. Practice C21.

Adapted from "Programme evaluation guide and self-study questionnaire: Diploma Programme." p. 23. Copyright 2010 by IBO. Adapted with permission.

Item C29 does not load in either component. Item C29 reads, *The written curriculum is informed by current IB publications and is reviewed regularly to incorporate developments in the programme*. C29 is another double-barreled item that asks raters to consider both that IB publications inform the curriculum and that the written curriculum is reviewed regularly to incorporate developments. The first concept in C29, that IB publications inform the curriculum, conceptually fits into the first component grouping listed above because it centers on the alignment of the written curriculum to the IBDP curriculum. The second concept involves curriculum review, a concept that does not appear anywhere else on the scale. The fact that C29 is a double-barreled item and that it introduces a new concept to the scale, curriculum review, likely contributes to its absence from component 1 and component 2 in the Table 18 matrix.

Despite item C29, the factor analysis of Curriculum Standard C2 is consistent with the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.* The high KMO coefficient .90,

the component factor loadings above .40, and consistent Requirement loadings provide validation of the current structure.

Table 18

Component Matrix for Curriculum Standard C2

	Component	
	1	2
C21c	.868	
C21a	.682	
C21d	.614	
C21b	.604	
C23	.595	
C210	.555	
C22	.509	
C29		
C27		-.885
C28		-.798
C211		-.668
C26		-.603
C25		-.598
C24		-.514

Note. Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

Curriculum Standard C3: Teaching and Learning

The general statistics for Curriculum Standard C3: Teaching and Learning found in Table 19 reveal mean scores above 3 for all items and above 3.5 for nine of the seventeen items. Item C32 *Teaching and learning engages students as inquires and thinkers*, had a minimum score of 3 out of 4 on the Likert scale by any individual school International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) results (n = 221). Only one other item in the SSQ, item C41a had a minimum score of 3. These high ratings indicate school raters are self-documenting Standard C3: Teaching and

Learning as a strength in the International Baccalaureate Diploma Programme (IBDP) implementation process.

Table 19

General Statistics of Curriculum Standard C3 Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
C31	176	47	3.72	.46	2	4
C31a	220	3	3.62	.50	2	4
C32	221	2	3.58	.49	3	4
C33	221	2	3.61	.51	2	4
C34	222	1	3.60	.53	2	4
C35	222	1	3.47	.56	2	4
C36	222	1	3.46	.57	2	4
C37	220	3	3.17	.65	1	4
C38	221	2	3.25	.65	1	4
C39	222	1	3.62	.52	2	4
C310	222	1	3.30	.59	2	4
C311	221	2	3.54	.56	2	4
C312	219	4	3.33	.54	2	4
C313	221	2	3.35	.60	2	4
C314	221	2	3.68	.49	2	4
C315	221	2	3.60	.50	2	4
C316	220	3	3.42	.58	2	4

The most parsimonious factor analysis solution for Curriculum Standard C3 excluded the High Miss variable, used a principal component analysis (PCA) and an Oblimin rotation. The Curriculum Standard C3 Likert scale analysis produced a three component solution with a KMO coefficient was .92 and the percentage of variance explained was 57%. Table 20 shows the item loading across the three components. When viewed in the Table 20 groupings, the components represent the following Curriculum Standard C3 concepts:

1. Teaching - Teaching is designed to meet individual student needs.

2. Learning - Student learning encompasses a variety of skills.

3. Alignment - Teaching and learning is aligned with IBDP curriculum and school policy.

Items C313, C314, and C39 did not load on any of the three components. A review of these three items indicates a redundancy in their concepts when compared to other items on the scale. For instance, item C39, is very similar to the following Likert scale item, C310. C39 reads, *Teaching and learning uses a range and variety of strategies*. Item C310 reads, *Teaching and learning differentiates instruction to meet students' learning needs and styles*. Item C39 and C310 focus on differentiated instruction. Similarly, item C313 *Teaching and learning engages students in reflecting on how, what and why they are learning* can be paired with the previous Likert scale item, C312 *Teaching and learning develops student attitudes and skills that allow for meaningful students action in response to students' own needs and the needs of others* as both center on the concept of reflection. Item C314 *Teaching and learning fosters a stimulating learning environment based on understanding and respect* can be paired with C316 *Teaching and learning develops the IB learner profile attributes* as both discuss concepts found in the IB learner profile. My recommendation is to simplify the scale through a streamlining of the Practices associated with Curriculum Standard C3. The factor analysis of Curriculum Standard C3 is not consistent with the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.*

Table 20

Component Matrix for Curriculum Standard C3

	Component		
	1	2	3
C37	.871		
C38	.809		
C316	.493		
C310	.400		
C311		-.862	
C315		-.651	
C312		-.543	
C313			
C314			
C39			
C34			-.788
C31a			-.761
C33			-.711
C35			-.654
C32			-.556
C36			-.405

Note. Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Curriculum Standard C4: Assessment

General statistics for Curriculum Standard C4: Assessment contain one High Miss variable, item C41 seen in Table 21. The most parsimonious statistical fit excluded item C41 from the factor analysis, which was a principal component analysis (PCA) using an Oblimin rotation. The KMO coefficient was .85 and the percentage of variance was 60%. Two components were extracted. Table 22 shows the Curriculum Standard C4 item breakdown into the two components. When viewed in the Table 22 groupings, the components represent the following Curriculum Standard C4 concepts:

1. Systems - The school has systems in place to monitor and communicate assessment data.

2. Alignment - Assessment is aligned with teaching and learning strategies.

Table 21

General Statistics of Curriculum Standard C4 Likert Scale Data

	N		Mean	Std. deviation	Minimum	Maximum
	Valid	Missing				
C41	177	46	3.76	.47	2	4
C41a	222	1	3.76	.43	3	4
C42	220	3	3.33	.69	1	4
C43	222	1	3.56	.53	2	4
C44	221	2	3.63	.54	2	4
C45	221	2	3.42	.69	1	4
C46	221	2	3.43	.71	1	4
C47	221	2	3.45	.61	2	4
C48	220	3	3.29	.61	2	4
C49	220	3	3.36	.69	1	4

Item C44 loads on both components with the two lowest component values in the matrix. Item C44 reads, *The school provides students with feedback to inform and improve their learning*. When viewed through the lenses of the two concepts listed above, a case can be made that item C44 does, in fact, have a place in both components. Providing feedback is a form of communication and it is also a teaching and learning strategy. Despite item C44, the factor analysis of Curriculum Standard C4 is consistent with the hypothesis: *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme.* The high KMO coefficient and conceptually clear component loadings provide validation of the current structure.

Table 22

Component Matrix for Curriculum Standard C4

	Component	
	1	2
C45	.980	
C46	.972	
C42	.556	
C47	.494	
C49	.485	
C41a		.895
C43		.727
C48		.679
C44	.430	.476

Note. Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Summary of Research Question 2 Findings

A major finding revealed by the factor analysis is that High Miss variables occur on Practices prior to the listing of all IBDP specific requirements. Between 20% and 25% of submitted SSQs are done so incorrectly, meaning at least 1 out of 5 schools is not responding to the High Miss variables. Factor loadings for the seven Standards were usually consistent with the hypotheses. Within each of the seven standards, items revealed a high level of shared variance as evidenced by high KMO Coefficients at .80 or above. Thus, within each standard, the items clustered together well enough to warrant a valid factor analysis. With the exception of two scales, Standard B2 and Standard C3, the factor loadings revealed coherent scales and subscales for each standard. Specific IBDP Requirements often loaded together in the same component showing adequate structural design. The hypothesis that *the factor structure data do not differ significantly from the*

model of the IB Self-Study Questionnaire: Diploma Programme was confirmed in all but two instances.

Question 3: What is the internal consistency reliability of the factors contained within the IB Self-Study Questionnaire: Diploma Programme?

Cronbach's alpha coefficients were computed for the items in each standard to determine the internal consistency reliability of the SSQ. Table 23 shows the Cronbach's alpha coefficients for the items within each IB Standard. All seven standards revealed a coefficient above the criterion level of .7, making the internal consistency of the SSQ structurally sound.

Table 23

Cronbach's Alpha Coefficients for Likert Data for Each IB Standard

Standard	Cronbach's alpha coefficient
A	.76
B	.93
B1	.88
B2	.90
C	.96
C1	.92
C2	.92
C3	.90
C4	.85

Table 23 also includes a Cronbach's alpha coefficient for the general B standard and the general C standard. For the general B standard, I computed the Cronbach's alpha coefficient for the B1 items and the B2 items taken together. For the general C standard, I computed the Cronbach's alpha coefficient for the C1, C2, C3, and C4 items taken together. These are present to examine the first and second order factor structure of the data and of the instrument. Standard B represents a second order factor for the concept of organization. The actual SSQ standards Organization Standard B1: Leadership and

Structure and Organization and Standard B2: Resources and Support are first order factors. Standard C represents a second order factor for the concept of curriculum. The actual SSQ standards Curriculum Standard C1: Collaborative Planning, Curriculum Standard C2: Written Curriculum, Curriculum Standard C3: Teaching and Learning, and Curriculum Standard C4: Assessment are first order factors. The hypothesis was that the first order factors would have higher Cronbach alpha coefficients than the second order factors because the first order factors are more specific and pure to concepts they are trying to measure. Table 23 reveals this hypothesis was not supported. The second order factors had higher Cronbach alphas than the first order factors.

An item-by-item analysis was also conducted eliminating one item at a time from each scale. The purpose was to see if the Cronbach alpha coefficient was greater for a standard without a particular item in the scale. If a Cronbach alpha coefficient became greater when an item was removed, then the case could be made that the item did not belong in the scale. Not a single removed item from any scale resulted in a greater Cronbach alpha coefficient for the standard. This includes all of the Likert scale items, including the identified standards for revision in Research Question 2. The conclusion is that from a reliability viewpoint, all items in the SSQ contain internal consistency within their standards.

Summary of Findings

1. All Standards had acceptable Cronbach alpha coefficients above .7 demonstrating good internal consistency reliability for the SSQ.
2. The hypothesis that first order factors would have greater Cronbach alpha coefficients than second order factors was not supported.

3. The item-by-item analysis revealed good internal consistency in all instances.

Chapter 5

International Baccalaureate Diploma Programme (IBDP) schools complete the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) as part of a five-year program evaluation cycle. Prior to this research, the SSQ had not been psychometrically validated. This study examined the content and construct validity as well as the reliability of the SSQ. Results validate large portions of the instrument, but also indicate various validity and reliability issues that need to be addressed to strengthen the instrument. The following chapter discusses the findings of the three research questions, provides recommendations, discusses the practical implications for International Baccalaureate Organization (IBO) practice, discusses scholarly implications and provides next steps for research.

Key Findings

The findings and recommendations generated through this study range from broad suggestions about the design of the entire SSQ to item specific information. One recommendation is paramount to the revision of the SSQ if the results are ever to be useful to generalizeable research of IB programme implementation. That recommendation is:

Descriptive anchors for the four-point Likert scales contained in the SSQ must be provided by the IBO.

The current instructions require school leaders to set their own descriptors for the scales and then consistently use them throughout the completion of the SSQ. These Likert scale descriptors will be different for every school completing the SSQ and may even be different for the same school completing the instrument over multiple program evaluation

cycles. The content validity portion of this study provided this recommendation as a result of the modified Delphi method. The descriptive anchor recommendation comes from both a psychometric instrument design perspective shared by the two university professors and the frustration of the three IB Coordiniators who have completed the SSQ.

Question 1: Does the IB Self-Study Questionnaire: Diploma Programme possess content validity?

The two round modified Delphi study provided meaningful feedback regarding the content validity of the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ). The Round 1 of the Meta-Questionnaire (MQ) revealed 81.8% of the items were identified by at least two experts as having a content validity issue. This number was unexpectedly high and reveals there were numerous content validity issues identified by the five experts. Holistic ratings on each of the three sections, Philosophy, Organization, and Curriculum were also provided by the experts with 5-point Likert scale mean scores of 2.4, 2.6, and 3.2 respectively. These mean scores show below average to average ratings by experts on the holistic rating of each of the three sections of the SSQ.

Round 2 required the same five experts to reexamine 19 items in light of content validity comments made in Round 1 feedback. A percent of pairwise agreement analysis revealed six items with 100% agreement for revision. Findings indicate multiple structural as well as philosophical revisions recommended by the experts.

Recommendations Based on Question 1 Results

A Summary of Delphi Study Results and Content Validity Recommendations to the International Baccalaureate Organization (IBO):

1. Revise the SSQ Likert scale directions and structure by providing descriptive anchors for the four points on the Likert Scale (described above).
2. Revise double-barreled Likert Scale items by creating a separate item for each part of the question.
3. The two-point scale in the *Conclusions of the Standard* section needs a middle point allowing for "some attention" to be given to the standard.
4. Revise items to allow for narrative responses explaining why structures exist in their current format and explaining what improvements are necessary to increase implementation.
5. Revise items to require specific evidence in order to increase depth of understanding surrounding SSQ concepts.

Question 2: What is the factor structure of the IB Self-Study Questionnaire: Diploma Programme and is it consistent with the three IB standards: Philosophy, Organization, and Curriculum?

Findings for Research Question 2 confirm that KMO coefficients were at the .8 level or higher for all seven standards and factor analysis loadings largely came back with logical component structures. The hypothesis that *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme* was confirmed in all but two instances. These findings are positive and speak to the sound structure of the SSQ. General statistics reveal high ratings between 3 and 4 on the Likert scales except for Curriculum Standard C1: Collaborative Planning, which had scores largely between 2 and 3. The lower C1 mean scores indicate Curriculum Collaborative Planning as a self-identified area that many school leaders believe needs to be improved in the implementation of the IBDP.

The emergence of High Miss variables from the general statistics was an unexpected outcome of the analysis. The designers of the SSQ Likert Scales constructed some items with a general item followed by a set of sub items. High Miss variables were consistently identified as the Practice items (general item) preceding specific Requirements (sub items) in the Likert scales. This caused a large number of schools to not answer the required general item and only answer the sub items.

In order to address this problem, I conducted the factor analysis in two ways. One way was to exclude the High Miss variables and the other was to insert mean scores in their place. In all seven standards, the factor loading was higher and a better fit when High Miss variables were excluded from the analysis. This helps make the case that omitting the High Miss variables from the SSQ is a good idea.

Organization Standard B2: Resources and Support had the most complex factor loading of the seven scales. I could not confirm the hypothesis for B2 that *the factor structure data do not differ significantly from the model of the IB Self-Study Questionnaire: Diploma Programme*. Multiple issues contributed to the factor loadings, including the existence of six Requirement subscales in B2. One of the Requirement subscales, B25a-c, loaded in three separate components. There are multiple likely reasons why this occurred with the B25 Requirements as well as other items in Organization Standard B2. First, the issue of double-barreled questions may be part of the reason why many items are not conceptually organized across the components. Eight of seventeen items, excluding the High Miss variables are double-barreled questions in Organization Standard B2. This means items are asking raters to consider at least two different ideas within a given item. For instance, Requirement B21a is “The allocation

of funds includes adequate resources *and* supervision for the creativity, action, service (CAS) programme *and* the appointment of a CAS coordinator" (emphasis added) (IBOb, 2010, p.22). This item is double-barreled (triple-barreled, actually) because it is dealing with multiple issues: funding for resources, funding for supervision, and the appointment of a CAS coordinator. If the items throughout the scale for Organization Standard B2 were simpler and more specific, the factor analysis would likely produce a simpler, more elegant component structure.

Consideration should be made for eliminating item B25c or moving it to the Curriculum Standard C4: Assessment. The concept of test security is also addressed earlier in the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ) on an open-ended item of the Organization Standard B2 section. Open-ended item 4 reads, *Describe where the school stores examination papers and examination stationery in each examination session and who has access to these.* If test security is already covered in the open-ended section of Organization Standard B2, it may not be necessary to also include it in the Likert scale. Additional items from C2, C3, and C4 have similar issues, which were addressed in Chapter 4. Recommendations for each specific item are listed below.

Positive attention should be given to the construct of the Curriculum Standard C1 Likert scale, as items are clear, simple, and have a similar structure. For instance, Figure 13 shows that each item begins with same phrase *Collaborative planning and reflection…* creating consistency in item design. The wording structure remains consistent throughout the scale and specifically addresses the language of the Standard itself. Previous scales from Standards A, B1, and B2 often start with the phrase "*The school",* but the phrase is

not consistent and is too broad to keep concepts focused to the level of Curriculum Standard C1. A suggestion is to reword other scales in the IB Self-Study Questionnaire: Diploma Programme (SSQ) to resemble the focused structure of Curriculum Standard C1.

Practice		Level of implementation			
		Low	→		High
1.	Collaborative planning and reflection addresses the requirements of the programme(s).				
	a. Collaborative planning and reflection includes the integration of theory of knowledge in each subject.				
	b. Collaborative planning and reflection explores connections and relations between subjects and reinforces knowledge, understanding and skills shared by the different disciplines.				
2.	Collaborative planning and reflection takes place regularly and systematically.				
3.	Collaborative planning and reflection addresses vertical and horizontal articulation.				
4.	Collaborative planning and reflection ensures that all teachers have an overview of students' learning experiences.				
5.	Collaborative planning and reflection is based on agreed expectations for student learning.				
6.	Collaborative planning and reflection incorporates differentiation for students' learning needs and styles.				
7.	Collaborative planning and reflection is informed by assessment of student work and learning.				
8.	Collaborative planning and reflection recognizes that all teachers are responsible for language development of students.				
9.	Collaborative planning and reflection addresses the IB learner profile attributes.				

Figure 13. Standard C1 Likert scale.

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Recommendations Based on Question 2 Results

1. Eliminate High Miss variable items from the rating portion of the Likert scale. All seven scales had stronger factor loadings when I excluded the High Miss variables. For clarity, the scales can still contain the practice, but the rating boxes can be eliminated or darkly shaded to avoid confusion.
2. Consider these results when revising IBDP Standards, Practices and Requirements. The Likert-type items are tied directly to the IBDP Standards, Practices and Requirements. Any efforts to revise the items must also include a discussion about revising these program evaluation elements. Specific considerations are listed below:
    a. Revise all double-barreled items.
    b. Simplify the language of each item whenever possible.
    c. Create consistency in structure throughout the scales similar to the structure of the Curriculum Standard C1 scale.
    d. Consider the difference between item B15d *The school develops and implements an assessment policy that is consistent with IB expectations* and B15f *The school complies with the IB regulations and procedures related to the conduct of all forms of assessment for the Diploma Programme* to determine if both are necessary. The two items can be re-written and simplified to read:

        The school has developed an assessment policy that is consistent with IB expectations.

The school is successfully implementing an assessment policy that is consistent with IB expectations.

The school complies with IB regulations in all assessments for the Diploma Programme.

e. Consider eliminating or moving item B25c *The school provides a secure location for the storage of examination papers and examination stationary with controlled access restricted to senior staff* to Curriculum Standard C4. This could be rewritten more simply as: Only senior staff can access examination papers and stationary.

f. Consider revising or eliminating item C29 *The written curriculum is informed by current publications and is reviewed regularly to incorporate developments in the programme(s)* as it did not load into a Curriculum Standard C2 component. Again this is too complex; it is double-barreled and should be separated into two distinct questions.

g. Consider revising or eliminating items C39 *Teaching and learning uses a range and variety of strategies*, C313 *Teaching and learning engages students in reflecting on how, what and why they are learning*, and C314 *Teaching and learning fosters a stimulating learning environment based on understanding and respect* as these items are redundant to other items in the scale. Redundancy is acceptable when items are written clearly.

h. Consider revising item C44 *The school provides students with feedback to inform and improve their learning*, or moving it to Organizational Standard B2.

Question 3: What is the internal consistency reliability of the factors contained within the IB Self-Study Questionnaire: Diploma Programme?

I conducted three internal consistency tests for Research Question 3. The first was to check the Cronbach alpha scores for each standard. All seven standards revealed a Cronbach alpha coefficient above the predetermined level of .7, making the internal consistency of the SSQ structurally sound.

The second test examined first and second order factors and I hypothesized that the first order factors would have Cronbach alpha numbers greater than the second order factors. This hypothesis was not supported and there are multiple reasons that may have contributed to this lack of support. Firstly, the Cronbach alphas are often higher when there are more items in a scale. A second order factor has all of the combined items of the first order factor scales. For the second order factor organization, this is the combination of two scales, and for curriculum, it is the combination of four scales.

Another reason may be the actual wording and placement of some of the items. Question 2 revealed multiple items that I identified for consideration to revise their wording, eliminate their existence or move them to other standards. The mismatch of items within standards that did not load neatly into component matrixes may have also contributed to higher Cronbach alpha coefficients on second order factors. I further hypothesize that if items are revised, better organized and more clearly articulated then the first order factors will have Cronbach alphas greater than the second order factors.

The third test was an item-by-item analysis removing each individual factor to determine if Cronbach alphas were greater for a standard with the factor being removed. This analysis revealed that not a single removed item from any scale resulted in a greater

Cronbach alpha coefficient for the standard. The conclusion is that from a reliability viewpoint, all items in the SSQ contain internal consistency within their standards.

Recommendations Based on Question 3 Results

1. Consider the first and second order factor analysis test in future revisions of the SSQ. A confirmation of the hypothesis that the first order factors would have Cronbach alpha numbers greater than the second order factors will only serve to strengthen the internal consistency reliability of the instrument.

Practical Implications for International Baccalaureate Organization Practice

The results of this research dissertation provide the International Baccalaureate Organization (IBO) with meaningful insights into the International Baccalaureate Self-Study Questionnaire: Diploma Programme (SSQ). Self-evaluation is a valuable collaborative process that allows school stakeholders the opportunity to reflect on their programs. The collaboration that occurs when completing the SSQ involves school administrators, IB teachers and additional stakeholders. The SSQ allows the opportunity for a community to reveal its strengths and growth areas for IBDP implementation. The goal of the SSQ recommendations in this study is to enrich this highly important collaborative self-study process.

This dissertation study also provides the IBO with a future research framework for validating the SSQ and other important instruments based on Likert scale psychometric validation research (Dira-Smolleck, 2004; Hays, 2008; Ponterotto, Rieger, Barret, & Sparks, 1994; Schlosser & Gelso, 2005; Shimp & Sharma, 1987). It is my sincerest hope that the IBO will consider the positive and constructive feedback presented in these pages.

Connell (2010) and Lineham (2013) suggest that school participation in the IBDP is more than simply a way to prepare students for university; it is a way to empower students to become active citizens who value the qualities found in the IB Learner Profile and its mission. Ensuring the fullest implementation of the IBDP through the self-study is an essential component for the IBO to fulfill its mission. Wergin (2005) supports the use of a self-study to align a school to an intended mission. Van Kemenade and Hardjono (2010) support the structure of the IBDP self-study process, which is centered on school improvement rather than external oversight. Revising the SSQ based on this study's recommendations will help streamline the collaborative self-evaluation process.

The IBO can ensure a better implementation process for IB World Schools by psychometrically strengthening the SSQ. Instituting a periodic psychometric validation once every few years will help guarantee a meaningful and productive self-study process for schools (Blackall et al., 2007; Hong et al., 2011, Weber et al., 2004). The psychometric review of the instrument also needs to be tied to a review of the Standards and Practices that comprise much of the SSQ. The review should include people who have recently used the instrument (IB coordinators), people who evaluate schools based on reviewing submitted self-study questionnaires (IB SSQ reviewers) and IBO administrators.

The collaborative process necessary for completing the SSQ is one of the most beneficial aspects of the program evaluation cycle. The SSQ brings the community together to reflect, celebrate and ultimately improve IB program implementation. An improved self-study process will also likely generate strong action plans positively impacting the entire program evaluation process. A stronger program evaluation process

will ultimately lead to the enhancement of International Baccalaureate Diploma Programme success for students around the world.

Research shows that students who participate in the IBDP in the U.S. and international high schools are more successful in university (Caspary, 2011a; Caspary 2011b; Shah, Dean, & Chen, 2010). This includes having higher university GPAs (Panich, 2001) and higher university graduation rates than non-IBDP students (Duvel, 1999). Improving the IBO program evaluation model through the revision of the SSQ based on the findings of this study will reinforce and ultimately strengthen IBDP implementation and assist in the continuation of these outcomes.

Specifically, a stronger implementation model is particularly important as more schools in lower socioeconomic areas continue to adopt the IBDP. Research shows the IBDP as an avenue for raising standards and narrowing the achievement gap in low-income areas (Burris et al., 2007; Coca, Johnson, & Kelley-Kemple, 2011). Kyburg, Hertberg-Davis, and Callahan (2007) suggested that the IBDP is most successful in high poverty urban schools with strong administrative understanding of the program and additional support structures. The Organization section of the SSQ involves leadership and support implementation and specific recommendations are presented in this study to strengthen these areas. This shows a clear link to the suggested revisions made in this study and the necessary qualities identified by previous research centered on IBDP success in lower socioeconomic areas.

Recommendations in this study are also tied specifically to the Philosophy and Curriculum sections of the SSQ. Research by Connell (2010) suggests that school philosophical alignment to the IB Mission and Values is essential to the implementation

of the IBDP. Lineham (2013) brings this alignment idea to the classroom level by specifically showing the positive impact on students of IB Learner Profile integration across the curriculum. The connection between the recommendations of this study and the qualities prior research deems important is once again apparent.

Scholarly Implications

Methodology

Research Question 1 used a modified Delphi technique that can be replicated by other researchers trying to establish content validity. The creation of the tools: the Round 1 and Round 2 Meta Questionnaires (MQs) served as a clear way to produce accurate and consistent data from Delphi technique experts. The two column format on the MQs served as a constructive method for providing experts with large amounts of questions to analyze while allowing them a place to provide systematic comments.

The percent of pairwise agreement method for inter-rater agreement used in my analysis of the data is also a worthy contribution for future modified Delphi methods. Consensus is the goal of a Delphi study, but with limited rounds of feedback, it is often unrealistic to expect consensus on all items in an instrument. The percent of pairwise agreement method for inter-rater agreement provided me with statistical percentages that I could then use to interpret the trends found in the data. The percentages were also more meaningful because they considered the 10 possible pairings of the five raters in the analysis.

Research Questions 2 and 3 used a stratified random sample of Likert scale responses in the SPSS calculations. Using a principal component analysis and trying both a Varimax orthogonal and Oblimin oblique rotation on each standard served to produce

largely sound construct validity and internal consistency reliability results for the SSQ. This process also revealed interesting issues regarding the loading of specific items. I believe other studies validating Likert scales could replicate this methodology.

Self-Study Research

Knowlton (2013) and Wergin (2005) discuss key elements of the self-study process at the university level. They recognize the importance of broad stakeholder participation in a self-study, a clear understanding of the purpose of a self-study, the use of multiple forms of evidence for evaluation, and the creation of an action plan focused on improvement. The IBO program evaluation model supports all of these components, yet there is a void in the research determining if self-studies required by any external agency lead to an accurate measurement of program implementation.

This study is a step towards filling the self-study research void found in education. Currently, self-studies are a requirement of many of the major accrediting agencies found in North America and Europe, yet no research exists validating the self-study instruments in use by these agencies. The use of Likert scales in the SSQ made it possible to conduct statistical analysis in a way that would not be possible for many existing self-study instruments used by external accrediting agencies that do not contain Likert scales. The creators of self-studies in use by those in the field of education have an academic responsibility to regularly validate their instruments.

Specific protocols for the creation and maintenance of survey instruments are found in the book *Standards for Educational and Psychological Testing* (1999). These protocols are shown in the literature review and involve four distinct steps:

a) instruments should be designed based on the current literature in the field being investigated (Blackall et al., 2007; Porter et al., 2010; Weber et al. 2004)

b) a panel of experts should review the instrument for content validity and make revisions (Porter et al., 2010; Blackall et al., 2007)

c) a sample should be used to check for content validity, often in the form of a factor analysis, and a reliability check, usually from an analysis of Cronbach's alpha coefficients (Blackall et al., 2007; Hong et al., 2011; Porter et al., 2010; Weber et al., 2004)

d) revisions are made to help strengthen the instrument (Blackall et al., 2007; Hong et al., 2011, Weber et al., 2004).

The SSQ is clearly based on the literature of the IBO. The SSQ questions and Likert scales are designed directly around the Standards and Practices established by the IBO. In this sense, the SSQ met the first of the four required steps for instrument design listed above. Research Question 1 addressed the second step using the modified Delphi study. Research Questions 2 and 3 addressed the third step using the factor analysis and reliability check. The fourth step, revision, is now necessary based on the recommendations provided in this study.

Recommendations for Further Research

The larger field of self-study research would benefit from a study that ascertains the value of a self-study that uses Likert scales versus a self-study that uses a full narrative model. Comparing the IBO self-study process to the processes used by external accreditation agencies would be highly beneficial to self-study research. Gaining a full

understanding of different types of self-study instruments would help scholars make revisions to existing instruments as well as design effective new instruments.

This study psychometrically validates large portions of the SSQ and provides recommendations for improving the instrument. The logical next step for the IBO is to review the recommendations, make changes to the instrument, and then run the statistics for Questions 2 and 3 with an initial smaller sample. Periodic psychometric reevaluation of the SSQ should also regularly occur. As the number of IB schools continues to grow around the world, the sample of schools completing the SSQ is constantly changing, making reevaluation of the current instrument a necessity.

Another suggestion for future research is to psychometrically validate the SSQ for the Middle Years Program (MYP) and the Primary Years Program (PYP). This research only examines the Self-Study Questionnaire: Diploma Programme. The Standards and Practices are the same for all three instruments, but the Requirements associated with certain practices are different in each level. Conducting the statistical analysis found in Research Questions 2 and 3 on the other two self-study instruments is necessary to validate their construct validity (Blackall et al., 2007; Hong et al., 2011; Porter et al., 2010; Weber et al., 2004). Only after the SSQ instruments are validated can researchers use the results to determine if the self-study process is helping schools successfully implement the IB programme(s).

Future research should use the validated SSQ to produce generalizable feedback data informing the IBO of common areas of strength and weakness in new IB World Schools. An example is to conduct the Research Questions 2 and 3 statistical analysis on a sample of schools completing the SSQ for the first time to determine if trends emerge in

new IB World Schools that reveal common difficulties in the initial five-year implementation. Informing new IB World Schools about common implementation difficulties will help them avoid mistakes and provide necessary support structures leading to greater success in their implementation. Separating the sample by IB region may also provide different strength trends and growth area trends for schools on different continents.

Comparing schools going through their first self-study to schools that have gone through multiple program evaluation cycles can also help determine if the self-study process is leading to more successful implementation. An external measure, such as enrollment or IB exam results could be used to measure the progress of the implementation of first self-study schools when compared to veteran programs.

Qualitative research in the area of International Baccalaureate program implementation would complement quantitative data and serve to produce information providing a more complete picture for individual schools that simply cannot be provided by statistical analysis (Blackall et al., 2007; Porter et al., 2010). An in-depth examination of the collaborative dynamics present in the self-evaluation process would provide important information regarding the value of the SSQ. Case studies examining a school going through IB authorization and their first self-study would be particularly beneficial to this research.

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Appendix A: Programme Evaluation Guide and Self-Study Questionnaire

Diploma Programme

Programme evaluation guide and self-study questionnaire: Diploma Programme

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Diploma Programme
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Guide to Programme Evaluation

Aims of the Programme Evaluation Process

Programme evaluation is both a requirement and a service provided by the IB Organization to IB World Schools. The aim is for the IB to ensure on a regular basis that the standards and practices of the programmes are being maintained.

The *Programme standards and practices* is the foundational document used by schools and the IB to ensure quality and fidelity in the implementation of its programmes in IB World Schools. The IB is aware that for each school the implementation of an IB programme is a journey and that the school will meet these standards and practices to varying degrees along the way. However, it is expected that the school makes a commitment towards meeting all the standards, practices and programme requirements.

This process allows the IB to work closely with the schools in their ongoing development of the programmes. It does not seek to appraise or assess individual teachers or students. It is a process of formal reflection involving all stakeholders within the school community.

Schools have found this process to be the source of new dynamism and momentum within the school and have incorporated it as a natural dimension of the school life, implemented continuously beyond the IB-specific requirement. It provides an opportunity to pause and reflect honestly on achievements and new initiatives in order to enhance the implementation of the IB programme. It has also proved to be an opportunity for increased communication within the school.

Within this process, there are certain expectations for the school and for the IB, which are described below:

The school is expected:

- to determine its own assessment of the implementation of the programme, according to the *Programme standards and practices* and programme requirements
- to identify major achievements during the period under review and to identify practices that need further development.

The IB is expected:

- to analyse and evaluate the school's implementation of the programme, according to the *Programme standards and practices* and programme requirements
- to commend schools on practices that address the *Programme standards and practices* in ways that solve challenges faced by the school and/or show outstanding implementation
- to provide guidance on enhancing the implementation of the programme in the school
- to point out areas within a school's practice that, if not addressed immediately, will jeopardize the integrity of the programme and thus the school's entitlement to be considered an IB World School.

Overview of The Evaluation Process

Schools should consider programme evaluation as an ongoing process of action and reflection that aims to enhance the implementation of the programme. This process is supported by the school's ongoing action plan, which is based on the *Programme standards and practices*. The IB evaluation process should be considered as a verification of this ongoing process in the school. This is shown in the diagram below.

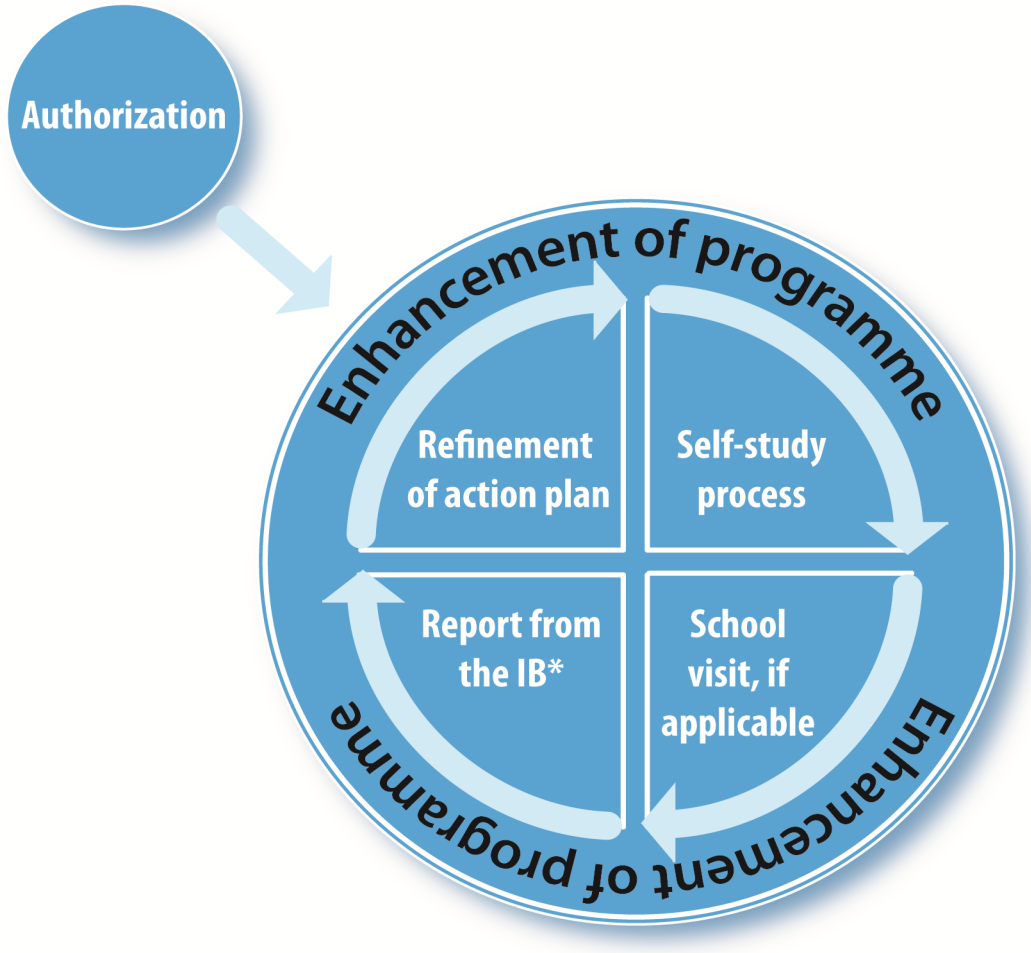


Figure A 1. The evaluation process.

* If the report includes matters to be addressed, the school will be asked to respond to these matters as mentioned below.

The Role of The School's Action Plan

Whilst completing the applications for candidacy and authorization, the school was asked to submit an action plan based on objectives drawn from the *Programme standards and practices*. Once the school is authorized, the IB expects the school to continue developing the programme at the school, refining and further developing its practices in order to achieve the standards, in accordance with the *Programme standards and practices*. To this end, the school is expected to continue updating the action plan in line with the priorities set out by the school, which should include the IB recommendations from previous evaluation or authorization processes.

At the time of evaluation, the school is expected to incorporate the results of its self-study into the action plan. This plan is submitted as part of the supporting documentation.

After evaluation, the school is expected to incorporate the IB recommendations from the evaluation report into the action plan for the new five-year cycle. However, responses to matters to be addressed will be required within a time frame set by the relevant IB office. This will be separate from the action plan.

The action plan will help the school to define its objectives and to monitor its progress towards achieving these. It will also help to ensure that a culture of ongoing reflection and improvement permeates the school.

Frequency

The evaluation process occurs every five years after authorization.

The relevant IB office provides information about timelines and procedures for submission of the self-study questionnaire and supporting documents, as well as date of the evaluation visit, if applicable.

Professional Development Requirements at Evaluation

Over the period under review, the school must have a plan that will ensure its compliance with the following requirements related to IB-recognized professional development.

- Head of school (or designee) if appointed during the period under review must participate in an appropriate IB workshop.

- Diploma Programme teachers, theory of knowledge (TOK) teachers, creativity, action, service (CAS) coordinator and Diploma Programme coordinator appointed during the period under review must participate in an IB category 1 or 2 workshop related to their subject or role.

- At least one Diploma Programme subject teacher per subject/TOK/CAS coordinator must participate in a relevant IB workshop if the subject or course has been reviewed during the period under review and a new guide has been published.

In addition to the above-mentioned requirements, the IB expects the school to provide further opportunities for staff to attend IB-recognized professional development activities as evidence of its ongoing commitment to professional development and in support of the continuing implementation of the programme.

Steps of the Programme Evaluation Process

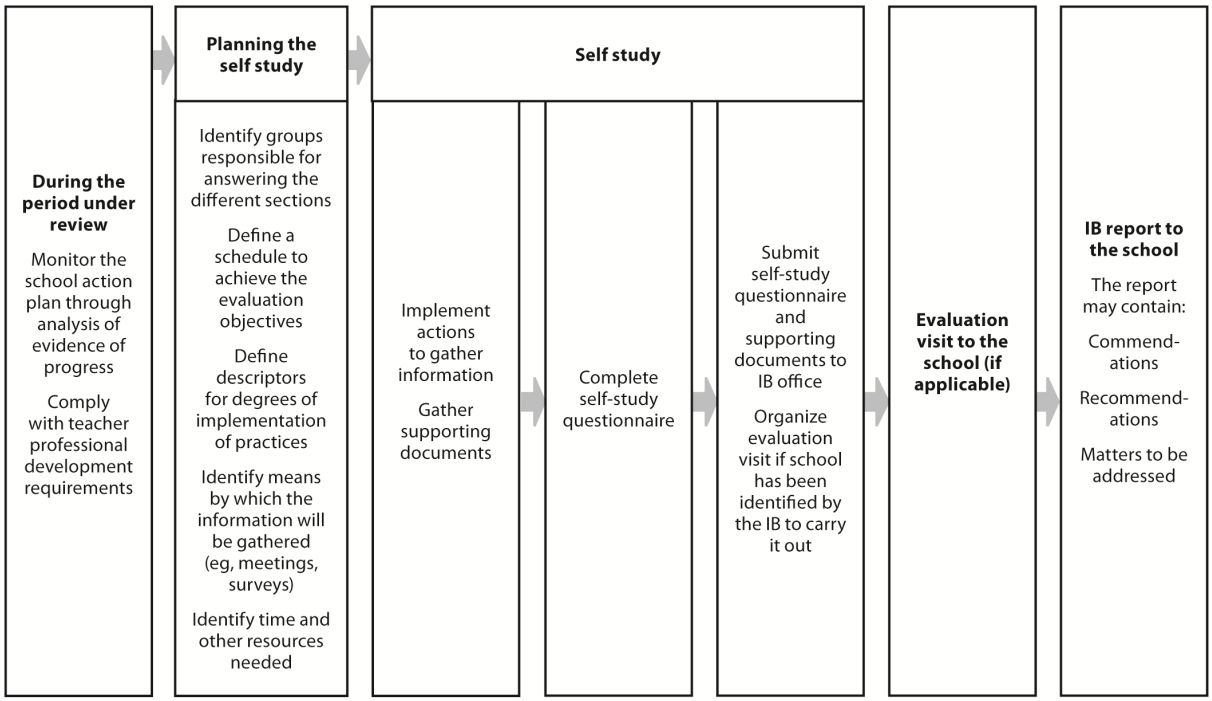


Figure A 2. Planning the self-study.

The self-study process is the most important aspect of the entire process of programme evaluation.

When planning the self-study, consider what the school should do in order to successfully comply with this requirement. Specifically, the school should take the following steps.

- Consider that the self-study will take place over at least 12 months because all those involved in the organization and implementation of the programme should contribute to this process: members of the governing body, administrators, teaching and non-teaching staff, students and parents. It involves looking at all aspects of school life that are affected by the programme.

- Identify who will be responsible for organizing the process. Normally, the IB programme coordinator fulfills this role in close collaboration with the pedagogical leadership team.

- Ensure that the leader in charge of organizing the process has the time and resources necessary to organize and coordinate the activities that the process entails.

- Determine who will be responsible for the completion of each section of the self-study questionnaire and the gathering of required documentation.

- Define the support that the teams will receive in order to carry out the activities (financial resources, clerical/technical support, and so on).

- Define descriptors for levels of implementation of practices.

- Determine the means by which feedback of stakeholders will be gathered (for example, surveys, face-to-face meetings). Define objectives and contents.

- Reserve significant formal meeting time to carry out this process. Meetings need to be carefully organized, allowing time for reflection, discussion and collating of evidence, if applicable.
- Further clarify aspects of the process to those who will be contributing to the study, including:
  - overview of the aims of the process
  - importance of understanding the *Programme standards and practices*
  - explanation of the descriptors to be applied when deciding on levels of implementation of practices to ensure consistency
  - importance of identifying and analysing school evidence to justify levels of implementation
  - importance of presenting evidence in order to verify conclusions
  - need for reflection on the gathered evidence in order to decide whether a standard shows satisfactory development or needs significant attention
  - guidelines and timelines for the completion of the sections of the questionnaire.
- Inform the wider school community about the process in order to gain their support.
- Analyse all the findings and discuss outcomes with those involved in the process, as appropriate.
- Finalize the self-study questionnaire and action plan for submission.
- Verify the collection of supporting documents.
- Submit the questionnaire and supporting documents electronically to the IB by the specified date, signed and agreed by the head of school.

Gathering evidence. The self-study should be evidence based, drawing on existing school documentation and reflecting actual practice in the school during the period under review—normally five years.

Documents related to the self-study questionnaire—including surveys and reflections—that are not explicitly required as part of this process by the IB should be kept at the school in case they are needed to inform aspects of what was submitted.

As part of the self-study, the school is required to include a response to the IB recommendations from the previous evaluation or authorization report.

Deciding on the levels of implementation of each practice. When completing the self-study questionnaire, the school should indicate the level of implementation of each practice described in the document.

The self-study questionnaire section of this document contains tables that outline the Diploma Programme standards and practices. Indicate the level of implementation in the four columns to the right of each practice. The school must develop descriptors showing gradation from low level of

implementation to high level of implementation. In order to ensure consistency it is essential that all participants in this process have a common understanding of these descriptors.

Meeting the standards. After carefully analysing the practices currently in place at the school and the evidence that was gathered to show their implementation, the school must carry out a reflective process to decide whether it is meeting the standards and how it will plan the next five-year period based on the outcomes of the evaluation process that has taken place.

Submission of the self-study questionnaire and supporting documents. The relevant IB office will provide schools with details on how to submit the self-study questionnaire and supporting documents electronically.

The evaluation visit. The IB reserves the right to visit a school, at the school's expense, as part of the evaluation process. The school will be given sufficient time to organize such a visit.

The purpose of the visit is to verify the school's assessment of its implementation of the programme in order to ensure that the standards and practices on which the IB programme is founded are maintained and furthered. A description of the visit can be found in the following pages of this document.

The findings of the visit will inform the final evaluation report sent to the school.

The evaluation report. After analysis of the self-study questionnaire, the supporting documents and the findings of the school visit, if applicable, the IB will send a final report to the head of school, which will reflect on the self-study submitted by the school, including the process and the conclusions that the school reached. It is the head's responsibility to share the findings of this report with the school community.

The report may include:

- Commendations: These relate to school practices that address the *Programme standards and practices* in ways that solve challenges faced by the school and/or outstanding implementation.
- Recommendations: These provide guidance for the school on further developing the programme.
- Matters to be addressed: These are areas within a school's practice that, if not addressed immediately, will jeopardize the integrity of the programme and thus the school's entitlement to be considered an IB World School.

Response to matters to be addressed. If the report includes matters to be addressed, the relevant IB office will prescribe a deadline by which the school is required to submit a response to these. The response will include evidence that the matters have been addressed or that an acceptable plan has been made for their accomplishment, as applicable. The pertinent articles from the *Rules for IB World Schools: Diploma Programme* will apply when schools do not fulfill these requirements.

The Evaluation Visit

Once the school has submitted the self-study questionnaire and its supporting documents, an IB visiting team may conduct a visit to the school.

Aims of the visit. The visit will verify the school's self-assessment as reflected in the self-study questionnaire.

For this purpose, the visiting team will:

- gather evidence and describe findings with regard to the progress of the implementation of the programme in relation to the *Programme standards and practices* since the last evaluation process or since authorization

- identify practices that are beyond the requirements and those whose further development will contribute to the effective implementation of the programme.

The aim of the visit is not to appraise or assess individual teachers or school administrators. It is an aspect of the evaluation process that seeks to ascertain the effectiveness of the programme implemented in the school as described in the school's self-study.

Description of the visit

When and how long? The IB will arrange the visit with the school at an appropriate time. Each visit normally lasts two to three days, but the IB may decide on a greater length depending on the size of the school.

Who is involved? The IB visiting team

Composition. The IB visiting team normally comprises two to three experienced IB educators who have been duly trained according to global IB policies to become site visitors. The IB may decide on a greater number according to the size of the school. The team is selected by the appropriate IB office.

Staff from the school being visited cannot be members of the visiting team. Normally, members of the team may not visit schools where they have recently taught or with which they otherwise have, or have had, a close relationship. If it presents a potential conflict of interest, team members should not visit a school in close proximity to their own.

Responsibilities of the visiting team. Members of the visiting team are aware of the aims of the visit and should follow specific procedures for conducting the visit. They have read the documents related to the school they visit.

The school community. The visiting team will have meetings with different members of the school community (members of the governing body, leadership team, IB coordinator, IB teachers, students and parents), will visit the school facilities and will observe classes.

How is it organized?

School's responsibilities

- Defining an agenda with the IB.

- Funding the visit, according to IB procedures established for this purpose.

- Providing the IB with information about nearby hotels to book for site visitors or making hotel reservations, if applicable.

- Providing transportation for site visitors from and to the airport and from and to the school, if applicable.

- Making available, in the school, a room for the use of the team throughout the visit where all necessary documentation required by the team will be available. As meetings will normally take place in the allocated room, it is the school's responsibility to see that it is quiet and conducive to private conversations.

- Providing meals during the school day.

- Providing the assistance of an external translator if meetings need to be conducted in a language other than the IB working language identified by the school as its language of communication with the IB (English, French or Spanish).

IB's responsibilities

- Providing the school with dates for the visit, with enough time for the school to organize it.

- Appointing the members of the visiting team and informing the school of their names in a timely manner.

- Approving the final agenda, after consultation with the school. This will normally be carried out by the leader of the visiting team.

The agenda for the visit

The visiting team leader decides which visiting team members and representatives of the school should attend which meetings.

The agenda will be drafted to ensure that the different stakeholders will be able to attend at specific times. Decisions about school staff attending meetings outside normal school hours are left to the school: the IB cannot insist that the staff attend.

Any visits to classes will be carried out with the consent of the teacher(s) concerned.

Agenda items

The agenda for the visit will normally include the following items:

- Formal interviews with the school administration, governors/board members (if applicable), the IB programme coordinator, the school pedagogical leadership team, teachers, librarians, groups of students, parents and others who are involved in the programme. These interviews will be individual and in groups, as decided by the visiting team leader, and will adhere to the local legal framework.

- Informal dialogues with teachers, students, administrators and other staff members are be involved in the programme.

- Observation of classes.

- Tour of school facilities emphasizing the areas that support the implementation of the programme (library, laboratories, and so on).

Details of the agenda are determined and confirmed before the visit. The precise agenda will depend on factors such as the size of the school and the information provided by the school prior to the visit. Sample agendas are available electronically.

The visiting team leader may revise the agenda slightly on site if the need arises and if the school is able to accommodate the request.

Exit interview

At the end of the visit, the visiting team will conduct an exit interview with members of the school administration. Based on the visit and school documentation submitted for the evaluation process, the team will orally communicate the observations made during the visit. The team will take this opportunity to check their facts and to ensure that the subsequent report that they have to write and submit to the IB relevant office accurately depicts the findings.

At this time the visiting team will not provide the school with a response regarding the evaluation, as the visit is but one part of a larger process, the outcome of which will be notified to the school by the IB.

The visiting team will continue discussions among themselves after the visit, and adjustments to their oral report may be made. The visiting team will then complete a written report to be submitted to the relevant IB office.

SUBMIT TO THE IB THE FOLLOWING SECTIONS ONLY

Note to the user

- This questionnaire and supporting documentation must be submitted in one of the IB working languages: English, French or Spanish. Translations of official documents should be duly certified.
- The self-study questionnaire should be completed electronically and submitted along with supporting documentation following the guidelines and deadlines provided by the relevant IB office.
- Insert your responses in the boxes provided for each question. The boxes will expand as you type your responses. Add rows as necessary.

Self-Study Questionnaire

School presentation

Update of school information

1. CONTACT DETAILS	
Name of school	**IB school code**

1. CONTACT DETAILS				
Legal registered name of school (if different from above)				
Postal address *(include city, state, country and postal or zip code)*				
Street address (if different from above) *(include city, state, country and postal or zip code)*				
Telephone *(include country and area codes)*				
Fax *(include country and area codes)*				
	Title *(Mr, Mrs, Ms)*	**Name**	**Position (2)**	**Email address**
Head of school (1)				
Head(s) of section where the Diploma Programme is implemented *(if different from above)*				
DP coordinator				
Advisor on post-secondary educational options/counsellor				
School public website				

1. **Head of school (director/principal in some systems)** is the person who leads and supervises the daily operations of the school, ensuring that the policies of the governing body are put into practice.
2. **Position:** Name of the post of employment at the school

2. SCHOOL INFORMATION

Date school founded or opened

month | year

Legal status of the school

Note:

- A **government/state/publicly funded school** is a government or national school where the employees are paid by the state either at a local or national level; usually there are no tuition fees (as distinct from examination or other fees).
- A **private school** is an independent (not-for-profit or for-profit) institution whose main revenue comes from tuition fees; they may or may not have government subsidies but these are only part of their income.

Government/state/publicly funded ☐ Private ☐ Other *(specify)* ☐

Indicate whether the school is recognized as such by the local educational system. Yes ☐ No ☐

Include school's accreditation status with other organizations, if any *(eg CIS, WASC)*.

Does the school belong to a group of schools gathered in a foundation, district or common project in relation to the IB? If this is so, identify the group/project.

Type of school

Boys ☐ Girls ☐ Coeducational ☐

Additional information *(eg coeducational in primary, boys and girls in secondary)*

Boarding only ☐ Day only ☐ Boarding and day ☐

Academic year dates *(indicate month only)*

Starts ☐ Ends ☐

2. SCHOOL INFORMATION

Age range of students across the whole school

From		years old	To		years old

Name the grades or years that comprise the different sections of the school and indicate the total number of students in each.

Name of the section in the school *(eg kindergarten, primary)*	Grades/years as identified in the school	Age range of students	Total number of students in each section
Total number of students in the whole school			

What other IB programmes does the school currently implement or plan to implement?

PYP	Candidate school		IB World School authorized to offer the programme	
	(add IB school code if you know it)		*(add IB school code)*	
MYP	Candidate school		IB World School authorized to offer the programme	
	(add IB school code if you know it)		*(add IB school code)*	

2. SCHOOL INFORMATION	
What educational programmes are currently taught in each section of the school? *(eg national syllabus, AP)*	
Name of the section	Educational programme
Name of qualification(s) or credential(s) a student can gain upon graduation from the school	
Language(s) of instruction at the school *(language through which group 3–6 subjects are taught)*	

Write brief paragraphs that describe the following aspects of the school and its community, and highlight any changes that have taken place during the period under review:

g. The major characteristics of the school that make it attractive for students and parents

h. The context in which the school is located: socioeconomic and cultural aspects of the surrounding community, interactions of the school with it

i. Student body and staff, including their national, cultural and linguistic backgrounds

Identify any changes to the school legal entity that occurred in the period under review.

Self-study

The subsequent questionnaire follows the structure of the *Programme standards and practices*, with programme requirements for the Diploma Programme.

Section A: Philosophy

Standard A

The school's educational beliefs and values reflect IB philosophy.

Identify who was involved in the completion of this part of the questionnaire.

Add rows as necessary.

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Transcribe the school's mission statement.

Has the school revised its philosophy/mission statement since authorization/the last evaluation? If yes, describe the process by which this was done and who was involved.

What strategies has the school implemented to encourage a higher degree of student participation in the Diploma Programme?

Include a brief summary of the perceptions of the parent community regarding the implementation of the programme at the school and its impact on their children.

Include a brief summary of the perception of the students regarding the implementation of the programme and its impact on them. Include the perceptions of graduates if the school has had the opportunity of involving them in the process.

Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low	→		High
1.	The school's published statements of mission and philosophy align with those of the IB.				
2.	The governing body, administrative and pedagogical leadership and staff demonstrate understanding of IB philosophy.				
3.	The school community demonstrates an understanding of, and commitment to, the programmes(s).				
4.	The school develops and promotes international-mindedness and all attributes of the IB learner profile across the school community.				
5.	The school promotes responsible action within and beyond the school community.				
6.	The school promotes open communication based on understanding and respect.				
7.	The school places importance on language learning, including mother tongue, host country language and other languages.				
8.	The school participates in the IB world community.				
9.	The school supports access for students to the IB programme(s) and philosophy.				
	a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.				
	b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.				
	c. The school has strategies in place to encourage students to attempt the full diploma.				

Conclusions on the standard

j. Complete the table. *(Indicate with X.)*

Standard A	Requires significant attention	Shows satisfactory development
The school's educational beliefs and values reflect IB philosophy.		

k. Describe any major achievement(s) related to this standard during the period under review.

l. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

m. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Section B: Organization

Standard B1: Leadership and structure

The school's leadership and administrative structures ensure the implementation of the Diploma Programme.

2. Identify who was involved in the completion of this part of the questionnaire.

Add rows as necessary.

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Update the following information.

a. Number of students currently enrolled at school in the two years in which the Diploma Programme is implemented

		Diploma Programme year 1	Diploma Programme year 2
1	Number of Diploma Programme certificate candidates		
2	Number of full Diploma Programme candidates		
3	Number of non-Diploma Programme students		
	TOTAL (1 + 2 + 3) *(Total number of students in the year of Diploma Programme implementation)*		

b. Do IB students have to fulfill other mandated requirements (for example, national, local requirements)? Yes ☐ No ☐

If the answer is yes, provide the following information:

i. Specify what type of requirements and in which year(s) of the Diploma programme they need to be fulfilled.

ii. If the requirements were introduced or changed in the period under review, how did the school address them in order to comply with them and with the IB requirements?

c. Do students have to meet admissions or selection criteria to be enrolled in the IB programme? Yes ☐ No ☐

i. If the answer is yes, describe the policy that the school applies.

ii. Are the current criteria for enrollment of students in the IB programme a result of a change of policy in the period under review? If this is so, explain the reasons for the change.

Governance

b. Briefly describe the governance structure at the school and highlight any changes that have been made to it during the period under review.

c. Describe how the governing body (or the educational authorities) is kept informed about the implementation of the Diploma Programme.

Pedagogical leadership

d. Describe any changes in the structure and responsibilities of the pedagogical leadership team in charge of the implementation of the Diploma Programme that have occurred during the period under review and why they were implemented.

e. If the Diploma Programme coordinator has other responsibilities besides the Diploma Programme coordination, indicate:

i. additional responsibilities

ii. percentage of his/her weekly schedule that is devoted to complying with his/her IB responsibilities as coordinator. (Indicate the whole weekly schedule of the coordinator at school, for example Mondays to Fridays from 9 am to 3.30 pm.)

f. If the school offers online Diploma Programme courses, describe the role of the site-based coordinator. Indicate what other responsibilities he/she has at the school.

Policies

Describe the process of revising the language, assessment, academic honesty and special educational needs policies at the school, including who was involved. Indicate when they were last revised.

g. Language policy

h. Assessment policy

i. Academic honesty policy

j. Special educational needs policy

Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low	→		High
1.	The school has developed systems to keep the governing body informed about the ongoing implementation and development of the programme(s).				
2.	The school has developed a governance and leadership structure that supports the implementation of the programme(s).				
3.	The head of school/school principal and programme coordinator demonstrate pedagogical leadership aligned with the philosophy of the programme(s).				
4.	The school has appointed a programme coordinator with a job description, release time, support and resources to carry out the responsibilities of the position.				

Practice		Level of implementation			
		Low	→		High
5.	The school develops and implements policies and procedures that support the programme(s).				
	a. The school has an admissions policy that clarifies conditions for admission to the school and the Diploma Programme.				
	b. The school develops and implements a language policy that is consistent with IB expectations.				
	c. The school develops and implements a special educational needs policy that is consistent with IB expectations and with the school's admissions policy.				
	d. The school develops and implements an assessment policy that is consistent with IB expectations.				
	e. The school has developed and implements an academic honesty policy that is consistent with IB expectations.				
	f. The school complies with the IB regulations and procedures related to the conduct of all forms of assessment for the Diploma Programme.				
6.	The school has systems in place for the continuity and ongoing development of the programme(s).				
7.	The school carries out programme evaluation involving all stakeholders.				

Conclusions on the standard

k. Complete the table. *(Indicate with X.)*

Standard B1: Leadership and structure	Requires significant attention	Shows satisfactory development
The school's leadership and administrative structures ensure the implementation of the Diploma Programme.		

l. Describe any major achievement(s) related to this standard during the period under review.

m. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

n. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Standard B2: Resources and support

The school's resources and support structures ensure the implementation of the Diploma Programme.

1. Identify who was involved in the completion of this part of the questionnaire.

   Add rows as necessary.

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Teachers and other staff who are involved in the implementation of the Diploma Programme

Update the following information:

a. Number of full-time teachers who are responsible for Diploma Programme courses

b. Number of part-time teachers who are responsible for Diploma Programme courses

c. Maximum Diploma Programme class size students

d. Describe the turnover of the staff involved in the implementation of the Diploma Programme in the period under review and how the school addressed any challenges in this area.

Collaborative planning and reflection

Identify the types and objectives of meetings that support the Diploma Programme implementation. Identify participants (for example, Diploma Programme subject teachers per subject group, all Diploma Programme subject and TOK teachers and CAS coordinators, Diploma Programme leadership team) and frequency. Use the table below.

Name of meeting	Who attends	Frequency of meeting	Objectives

Administration of exams

Describe where the school stores examination papers and examination stationery in each examination session and who has access to these.

Teaching time

a. Number of weeks of instruction in the school year

b. Number of instructional periods students receive in a week

c. Length (in minutes) of each instructional period

d. During the period under review, did the school make any adjustments in the student's weekly schedule to ensure that the recommended teaching hours for standard and higher level subjects and TOK are included and allow for concurrency of learning? Yes ☐ No ☐

If the answer is yes, explain the changes that were implemented.

Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low			High
1.	The governing body allocates funding for the implementation and ongoing development of the programme(s).				
	a. The allocation of funds includes adequate resources and supervision for the creativity, action, service (CAS) programme and the appointment of a CAS coordinator.				
	b. The allocation of funds includes adequate resources to implement the theory of knowledge course over two years.				
2.	The school provides qualified staff to implement the programme(s).				
3.	The school ensures that teachers and administrators receive IB-recognized professional development.				
	a. The school complies with the IB professional development requirement for the Diploma Programme at authorization and at evaluation.				
4.	The school provides dedicated time for teachers' collaborative planning and reflection.				

Practice		Level of implementation			
		Low	→		High
5.	The physical and virtual learning environments, facilities, resources and specialized equipment support the implementation of the programme(s).				
	a. The laboratories and studios needed for group 4 and group 6 subjects provide safe and effective learning environments.				
	b. There are appropriate information technology facilities to support the implementation of the programme.				
	c. The school provides a secure location for the storage of examination papers and examination stationery with controlled access restricted to senior staff.				
6.	The library/multimedia/resources play a central role in the implementation of the programme(s).				
	a. The library/media centre has enough appropriate materials to support the implementation of the Diploma Programme.				
7.	The school ensures access to information on global issues and diverse perspectives.				
8.	The school provides support for its students with learning and/or special educational needs and support for their teachers.				
9.	The school has systems in place to guide and counsel students through the programme(s).				
	a. The school provides guidance to students on post-secondary educational options.				
10.	The student schedule or timetable allows for the requirements of the programme(s) to be met.				
	a. The schedule provides for the recommended hours for each standard and higher level subject.				
	b. The schedule provides for the development of the theory of knowledge course over two years.				
	c. The schedule respects concurrency of learning in the Diploma Programme.				
11.	The school utilizes the resources and expertise of the community to enhance learning within the programme(s).				

Practice		Level of implementation			
		Low	→		High
12.	The school allocates resources to implement the Primary Years Programme exhibition, the Middle Years Programme personal project and the Diploma Programme extended essay for all students, depending on the programme(s) offered.				

Conclusions on the standard

a. Complete the table. *(Indicate with X.)*

Standard B2: Resources and support	Requires significant attention	Shows satisfactory development
The school's resources and support structures ensure the implementation of the Diploma Programme.		

b. Describe any major achievement(s) related to this standard during the period under review.

c. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

d. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Section C: Curriculum

How to complete this section:

1. The teachers of each Diploma Programme subject group must meet and, after reaching a consensus, must complete the whole of Section C: Curriculum, which includes standards C1, C2, C3 and C4 for each subject group. If there is only one teacher from a subject group, he/she will complete the whole of Section C for that subject group.
2. Teachers responsible for TOK and CAS will follow the same procedure as described in 1 above.
3. When the first two steps have been completed, a group formed by one representative of each subject group, one representative from TOK and one from CAS must meet with the Diploma Programme coordinator and complete the whole of Section C, which will be included in the self-study questionnaire to be sent to the IB.
4. The documents completed by the subject group and TOK teachers and CAS coordinator, as described in 1 and 2 above, must be kept by the school because they may be requested by the IB as further evidence of the process. The overview of the achievement of the standards, as identified by each of these groups, should be provided in Chart 5.

1. Identify who was involved in the completion of this part of the questionnaire (C1, C2, C3 and C4).

   Add rows as necessary.

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Describe the system that is in place for the induction of students into the Diploma Programme and how each student's programme of study is put together.

Standard C1: Collaborative planning

Collaborative planning and reflection supports the implementation of the Diploma Programme.

1. Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low	→		High
1.	Collaborative planning and reflection addresses the requirements of the programme(s).				
	a. Collaborative planning and reflection includes the integration of theory of knowledge in each subject.				
	b. Collaborative planning and reflection explores connections and relations between subjects and reinforces knowledge, understanding and skills shared by the different disciplines.				
2.	Collaborative planning and reflection takes place regularly and systematically.				
3.	Collaborative planning and reflection addresses vertical and horizontal articulation.				
4.	Collaborative planning and reflection ensures that all teachers have an overview of students' learning experiences.				
5.	Collaborative planning and reflection is based on agreed expectations for student learning.				
6.	Collaborative planning and reflection incorporates differentiation for students' learning needs and styles.				
7.	Collaborative planning and reflection is informed by assessment of student work and learning.				
8.	Collaborative planning and reflection recognizes that all teachers are responsible for language development of students.				
9.	Collaborative planning and reflection addresses the IB learner profile attributes.				

Indicate the practice(s) that produced more diverse answers in the group. In one or two paragraphs, identify the differing views and how the consensus was reached.

Conclusions on the standard

a. Complete the table. *(Indicate with X.)*

Standard C1: Collaborative planning	Requires significant attention	Shows satisfactory development
Collaborative planning and reflection supports the implementation of the Diploma Programme.		

b. Describe any major achievement(s) related to this standard during the period under review.

c. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

d. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Standard C2: Written curriculum

The school's written curriculum reflects IB philosophy.

1. Indicate what subjects or levels were added to or removed from the offer to students and indicate the reasons for these decisions. If the school does not offer a subject from the group 6: the arts, explain why.

Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low	→		High
1.	The written curriculum is comprehensive and aligns with the requirements of the programme(s).				
	a. The curriculum fulfills the aims and objectives of each subject group and the core.				
	b. The curriculum facilitates concurrency of learning.				
	c. The curriculum is balanced so that students are provided with a reasonable choice of subjects.				
	d. The school develops its own courses of study for each subject on offer and for theory of knowledge.				
2.	The written curriculum is available to the school community.				
3.	The written curriculum builds on students' previous learning experiences.				
4.	The written curriculum identifies the knowledge, concepts, skills and attitudes to be developed over time.				
5.	The written curriculum allows for meaningful student action in response to student's own needs and the needs of others.				
6.	The written curriculum incorporates relevant experiences for students.				
7.	The written curriculum promotes students' awareness of individual, local, national and world issues.				
8.	The written curriculum provides opportunities for reflection on human commonality, diversity and multiple perspectives.				
9.	The written curriculum is informed by current IB publications and is reviewed regularly to incorporate developments in the programme(s).				
10.	The written curriculum integrates the policies developed by the school to support the programme(s).				
11.	The written curriculum fosters development of the IB learner profile attributes.				

Indicate the practice(s) that produced more diverse answers in the group. In one or two paragraphs, identify the differing views and how the consensus was reached.

Conclusions on the standard

a. Complete the table. *(Indicate with X.)*

Standard C2: Written curriculum	Requires significant attention	Shows satisfactory development
The school's written curriculum reflects IB philosophy.		

b. Describe any major achievement(s) related to this standard during the period under review.

c. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

d. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Standard C3: Teaching and learning

Teaching and learning reflects IB philosophy.

1. Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low	→		High
1.	Teaching and learning aligns with the requirements of the programme(s).				
	a. Teaching and learning at the school addresses all of the aims and objectives of each subject.				
2.	Teaching and learning engages students as inquirers and thinkers.				
3.	Teaching and learning builds on what students know and can do.				
4.	Teaching and learning promotes the understanding and practice of academic honesty.				
5.	Teaching and learning supports students to become actively responsible for their own learning.				
6.	Teaching and learning addresses human commonality, diversity and multiple perspectives.				
7.	Teaching and learning addresses the diversity of student language needs, including those for students learning in a language(s) other than mother tongue.				
8.	Teaching and learning demonstrates that all teachers are responsible for language development of students.				
9.	Teaching and learning uses a range and variety of strategies.				
10.	Teaching and learning differentiates instruction to meet students' learning needs and styles.				
11	Teaching and learning incorporates a range of resources, including information technologies.				
12.	Teaching and learning develops student attitudes and skills that allow for meaningful student action in response to students' own needs and needs of others.				
13.	Teaching and learning engages students in reflecting on how, what and why they are learning.				

Practice		Level of implementation			
		Low	→		High
14.	Teaching and learning fosters a stimulating learning environment based on understanding and respect.				
15.	Teaching and learning encourages students to demonstrate their learning in a variety of ways.				
16.	Teaching and learning develops the IB learner profile attributes.				

Indicate the practice(s) that produced more diverse answers in the group. In one or two paragraphs, identify the differing views and how the consensus was reached.

Conclusions on the standard

a. Complete the table. *(Indicate with X.)*

Standard C3: Teaching and learning	Requires significant attention	Shows satisfactory development
Teaching and learning reflects IB philosophy.		

b. Describe any major achievement(s) related to this standard during the period under review.

c. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

d. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Standard C4: Assessment

Assessment at the school reflects IB assessment philosophy.

1. Include a brief analysis of the examination results within the period under review and any action taken as a consequence (include Diploma Programme subjects, TOK and extended essays).

Complete the chart below with the results of the self-study process.

Practice		Level of implementation			
		Low	→		High
1.	Assessment at the school aligns with the requirements of the programme(s).				
	a. Assessment of student learning is based on the objectives and assessment criteria specific to each subject.				
2.	The school communicates its assessment philosophy, policy and procedures to the school community.				
3.	The school uses a range of strategies and tools to assess student learning.				
4.	The school provides students with feedback to inform and improve their learning.				
5.	The school has systems for recording student progress aligned with the assessment philosophy of the programme(s).				
6.	The school has systems for reporting student progress aligned with the assessment philosophy of the programme(s).				
7.	The school analyses assessment data to inform teaching and learning.				

Practice		Level of implementation			
		Low	→		High
8.	The school provides opportunities for students to participate in, and reflect on, the assessment of their work.				
9.	The school has systems in place to ensure that all students can demonstrate consolidation of their learning through the completion of the Primary Years Programme exhibition, the Middle Years Programme personal project and the Diploma Programme extended essay, depending on the programme(s) offered.				

Indicate the practice(s) that produced more diverse answers in the group. In one or two paragraphs, identify the differing views and how the consensus was reached.

Conclusions on the standard

a. Complete the table. *(Indicate with X.)*

Standard C4: Assessment	Requires significant attention	Shows satisfactory development
Assessment at the school reflects IB assessment philosophy.		

b. Describe any major achievement(s) related to this standard during the period under review.

c. Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.

d. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.

Conclusions of the self-study process

After analysing the outcomes of the self-study process, the school has established the priorities used to create the school action plan included with this questionnaire (see Chart 7).

We agree that this electronic questionnaire, whether signed electronically or not, and supporting documents will be understood by the IB Organization to have been read and endorsed by the head of school, without a signed hard copy being necessary.

Name and title of head of school

Signature

Date

Name of head of section where the Diploma Programme is implemented *(if different from head of school)*

Signature

Date

Name of Diploma Programme coordinator

Signature	Date

List of supporting documents to attach to this form

Place an X in the box to indicate that you have attached the document to the form.

Self-study process

A description of the self-study process implemented in the school, including ☐

- timeline
- means used to gather feedback from the different stakeholders
- meeting schedule for the self-study
- the school-developed descriptors for assessing the practices

Philosophy

School brochure that includes information about the implementation of the Diploma Programme ☐

Organization

School organization chart showing the Diploma Programme pedagogical leadership team situation (including the Diploma Programme coordinator) and reporting lines ☐

Language policy ☐

Assessment policy ☐

Academic honesty policy

Special educational needs policy

Sample of student's schedule for year 1 and year 2 of the Diploma Programme. If the school offers different combinations of subjects, include more samples of students' schedules showing those options. (Identify the Diploma Programme subjects with their IB name and include other subjects that the student will take according to other requirements, if applicable.)

Calendar of school deadlines for student submission of internal and external assessment components: it is expected to reflect different dates from the IB deadlines as they are for internal use of teachers and students.

Description of the process of the supervision of extended essays that includes timelines, how students choose their extended essay supervisors and how many students each supervisor is normally responsible for.

Complete the charts that appear in the following pages.

Chart 1: Update of organization of teaching time

Diploma Programme subjects										Subjects completed in one year	
Subject *Indicate the name of the subject under each group.* *If it is offered online, add "online" next to the name of the subject.* *Add rows as necessary.*	**Subject level and hours of instruction** *Indicate the hours of instruction (1 hour = 60 minutes) allocated to the levels of the subjects the school offers.*				**Language(s) of instruction**	**Current number of students**				*Add an X in the appropriate column if any of the situations allowed by the IB (as described below the chart) apply in the school. **	
	Hours of instruction at Higher level		**Hours of instruction at Standard level**			**Higher**		**Standard**		**Standard level subject(s) completed in year 1**	**Standard level subject completed in year 2**
	Year 1	**Year 2**	**Year 1**	**Year 2**		**Year 1**	**Year 2**	**Year 1**	**Year 2**		
Group 1: studies in language and literature (indicate the language: eg English A: literature)											

Diploma Programme subjects										Subjects completed in one year	
Subject *Indicate the name of the subject under each group.* *If it is offered online, add "online" next to the name of the subject.* *Add rows as necessary.*	**Subject level and hours of instruction** *Indicate the hours of instruction (1 hour = 60 minutes) allocated to the levels of the subjects the school offers.*				**Language(s) of instruction**	**Current number of students**				*Add an X in the appropriate column if any of the situations allowed by the IB (as described below the chart) apply in the school. **	
	Hours of instruction at Higher level		**Hours of instruction at Standard level**			**Higher**		**Standard**		**Standard level subject(s) completed in year 1**	**Standard level subject completed in year 2**
	Year 1	**Year 2**	**Year 1**	**Year 2**		**Year 1**	**Year 2**	**Year 1**	**Year 2**		
Group 2: language acquisition (indicate the language: eg English B)											
Group 3: individuals and societies											

Diploma Programme subjects										Subjects completed in one year	
Subject *Indicate the name of the subject under each group.* *If it is offered online, add "online" next to the name of the subject.* *Add rows as necessary.*	**Subject level and hours of instruction** *Indicate the hours of instruction (1 hour = 60 minutes) allocated to the levels of the subjects the school offers.*				**Language(s) of instruction**	**Current number of students**				*Add an X in the appropriate column if any of the situations allowed by the IB (as described below the chart) apply in the school. **	
	Hours of instruction at Higher level		**Hours of instruction at Standard level**			**Higher**		**Standard**		**Standard level subject(s) completed in year 1**	**Standard level subject completed in year 2**
	Year 1	**Year 2**	**Year 1**	**Year 2**		**Year 1**	**Year 2**	**Year 1**	**Year 2**		
Group 4: experimental sciences											
Group 5: mathematics and computer sciences											

Diploma Programme subjects										Subjects completed in one year	
Subject *Indicate the name of the subject under each group.* *If it is offered online, add "online" next to the name of the subject.* *Add rows as necessary.*	**Subject level and hours of instruction** *Indicate the hours of instruction (1 hour = 60 minutes) allocated to the levels of the subjects the school offers.*				**Language(s) of instruction**	**Current number of students**				*Add an X in the appropriate column if any of the situations allowed by the IB (as described below the chart) apply in the school. **	
	Hours of instruction at Higher level		**Hours of instruction at Standard level**			**Higher**		**Standard**		**Standard level subject(s) completed in year 1**	**Standard level subject completed in year 2**
	Year 1	**Year 2**	**Year 1**	**Year 2**		**Year 1**	**Year 2**	**Year 1**	**Year 2**		
Group 6: the arts											

* All Diploma Programme courses are designed as two-year learning experiences. However, up to two standard level subjects, excluding languages ab initio and pilot subjects, can be completed in one year, according to conditions established in the *Handbook of procedures for the Diploma Programme*.

	Number of hours instruction in year 1	**Number of hours instruction in year 2**	**Language(s) of instruction**	**Number of students in year 1**	**Number of students in year 2**
TOK					

Chart 2: Update of Diploma Programme teaching staff, qualifications and IB-recognized professional development

- **IB-recognized professional development** is activities as listed on the IB events calendar on the IB public website (http://www.ibo.org) or in-school professional development activities organized by the relevant IB office.
- **Location:** In the chart below, indicate where the training took place.
  - For IB regional workshops attended name the city.
  - For IB workshops organized in the school use "IS".
  - For IB online workshops use "Online".

Subject/role *Indicate the name of the subject offered under each group. Add rows as necessary.*	**Subject level**		**Teacher's name**	Qualifications of each teacher *(degrees, diplomas)*	**Number of years at this school**	Full/ part-time (use FT/PT)	**IB activities in which teacher is or has been involved in period under review** (eg examiner, moderator, workshop leaders, site visitors)	**IB-recognized professional development attended during period under review**		
	Higher	**Standard**						**Location**	**Date**	**Workshop name and category**
Group 1: studies in language and literature (indicate the language: eg English A: literature)										

Subject/role *Indicate the name of the subject offered under each group.* *Add rows as necessary*.	**Subject level**		**Teacher's name**	Qualifications of each teacher *(degrees, diplomas)*	**Number of years at this school**	Full/ part-time (use FT/PT)	**IB activities in which teacher is or has been involved in period under review** (eg examiner, moderator, workshop leaders, site visitors)	**IB-recognized professional development attended during period under review**		
	Higher	**Standard**						**Location**	**Date**	**Workshop name and category**
Group 2: language acquisition (indicate the language: eg English B)										
Group 3: individual and societies										
Group 4: experimental sciences										

Subject/role *Indicate the name of the subject offered under each group. Add rows as necessary.*	**Subject level**		**Teacher's name**	Qualifications of each teacher *(degrees, diplomas)*	**Number of years at this school**	Full/ part-time (use FT/PT)	**IB activities in which teacher is or has been involved in period under review** (eg examiner, moderator, workshop leaders, site visitors)	**IB-recognized professional development attended during period under review**		
	Higher	**Standard**						**Location**	**Date**	**Workshop name and category**
Group 5: mathematics and computer sciences										
Group 6: the arts										
TOK										
CAS coordinator										
DP coordinator										
Head of school										

Chart 3: Update of school facilities that support the implementation of the Diploma Programme

Describe the changes that the school has made, if any, during the period under review, regarding its physical resources (for example, library, science laboratories) to support the implementation of the programme. Indicate the areas that are still in the process of improvement.

Add rows as necessary.

Resource	Changes since authorization/last evaluation	Developments under way/future development (if applicable)
Library/multimedia centre		
Science laboratories		
Arts provision		
Facilities to support the examination session *(eg rooms)*		
Information technology provision		

Resource	Changes since authorization/last evaluation	Developments under way/future development (if applicable)
Other *(identify)*		

Chart 4: Update of implementation budget

Indicate the currency the school uses. If possible, use USD, GBP, CHF or CAD.

USD = US dollars GBP = Great British pounds CHF = Swiss francs CAD = Canadian dollars

	IB World School current year	Year 2 after evaluation	Year 3 after evaluation	Year 4 after evaluation	Year 5 after evaluation
Academic year					
Annual fee					
Candidate assessment fees					
Resources *(specify)*					
IB professional development *(specify)*					

	IB World School current year	Year 2 after evaluation	Year 3 after evaluation	Year 4 after evaluation	Year 5 after evaluation
Other					
TOTAL					

Approved by

Position

Chart 5: Overview of levels of achievement of the standards in section C

- Indicate with X the levels of achievement for the standards as identified by each subject group in the table below.
- Include the levels of achievement included in the self-study.

	C1		C2		C3		C4	
	Requires significant attention	Shows satisfactory development	Requires significant attention	Shows satisfactory development	Requires significant attention	Shows satisfactory development	Requires significant attention	Shows satisfactory development
General *(as declared in the self-study to be submitted to the IB)*								
Group 1: studies in language and literature								
Group 2: language acquisition								
Group 3: individuals and societies								
Group 4: experimental sciences								

	C1		C2		C3		C4	
	Requires significant attention	Shows satisfactory development	Requires significant attention	Shows satisfactory development	Requires significant attention	Shows satisfactory development	Requires significant attention	Shows satisfactory development
Group 5: mathematics and computer science								
Group 6: the arts								
TOK								
CAS								

Chart 6: CAS programme outline

Submit this outline as a separate document according to the instructions given by the relevant IB office.

Diploma Programme programme outline—CAS			
School name		**IB school code**	
Name of CAS coordinator		**Date of last IB training**	
		Name of workshop *(indicate name of subject and workshop category)*	

A: Context

1. Current number of Diploma Programme students involved in CAS

Diploma Programme year 1

Diploma Programme year 2

2. Environment

Describe the social and physical environment of the community in which the school is located.

B: Organization of CAS

1. Coordination

a. Does the CAS coordinator have only this role in the school? Yes No

b. If the answer is no, answer the following questions.

i. What additional responsibilities does the CAS coordinator have?

ii. What percentage of the CAS coordinator's scheduled time is devoted to CAS? (Include his/ her whole weekly schedule for reference, for example Mondays to Fridays from 9 am to 3 pm).

c. In larger schools a team approach is recommended. If this is the case in the school, answer the following questions.

i. How does the school identify CAS advisers to ensure that the students are helped to make the most out of their CAS experience?

ii. For how many students does each CAS adviser have responsibility?

iii. How does the CAS coordinator guide and supervise the advisers?

iv. What procedures are in place to ensure consistency of advisers' responses to questions related to proposed activities?

2. Time allocation

Indicate the weekly time allocation for CAS activities. Identify the time allocated for meetings of students with advisers/CAS coordinator and time allocated for CAS activities.

	Weekly time allocated for students to meet with CAS coordinator/advisers	Weekly time students devote to CAS activities
Within the school's timetable		
Outside the school's timetable		

Describe other time arrangements, if applicable.

3. Length of the whole CAS programme (it must expand over 18 months at least)

	Month of year 1 of the Diploma Programme	Month of year 2 of the Diploma Programme
It starts		
It ends		

4. Budget

Indicate how the budget for CAS is produced and revised every year. Identify different types of support that the school provides for CAS (for example, administrative, transportation).

5. Monitoring/advising

How often do interviews with each student take place? Indicate length of interview and main objectives.

6. Supervision

Who is involved in the supervision of students (teachers, other school staff, parents, members of the community)? How does the school brief them about its expectations?

7. CAS programme

a. How does the school ensure that the students are given opportunities to choose their own CAS activities? Give three examples of student's initiatives.

b. How does the school promote students undertaking activities in a local and/or international context? Indicate any challenges that the school may face in trying to achieve this objective.

c. How are the students advised to plan their CAS programme, taking the learning outcomes into account? How do you ensure that each student's plan shows balance between creativity, action and service?

d. Give an example of a student's CAS programme that you consider appropriate to address all eight learning outcomes. Do not forget that each student should

participate in at least one project involving teamwork that integrates two or more CAS areas and is of significant duration.

e. What strategies do you apply to ensure that students reflect on their CAS experiences?

f. Describe how you establish links between CAS and TOK.

g. How does the school record the progress of the student's CAS programme?

h. How does the student record his/her CAS experiences and reflections?

i. How does the school report on the student's CAS programme to parents?

j. How does the school promote the student's achievements in CAS within the school community?

k. How do you encourage the whole school community to get involved in CAS? Describe major achievements during the period under review.

Chart 7: Update of action plan

- Schools are required to use this template to submit their plan in order to continue implementing the programme for the next five years. It is organized according to the headings of the *Programme standards and practices*.
- The school will include objectives drawn from the outcomes of the self-study questionnaire.
- Add rows as necessary.

A: Philosophy

The school's educational beliefs and values reflect IB philosophy.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

B: Organization

B1: Leadership and structure

The school's leadership and administrative structures ensure the implementation of the Diploma Programme.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

B2: Resources and support

The school's resources and support structures ensure the implementation of the Diploma Programme.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

C: Curriculum

C1: Collaborative planning

Collaborative planning and reflection support the implementation of the Diploma Programme.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

C2: Written curriculum

Programme evaluation self-study questionnaire: Diploma Programme PRE-PUBLICATION

The school's written curriculum reflects IB philosophy.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

C3: Teaching and learning

Teaching and learning reflects IB philosophy.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

C4: Assessment

Assessment at the school reflects IB assessment philosophy.

Objective	Actions	Date to be achieved	Person/group responsible for achieving this objective	Budgetary implications	Evidence of achievement or of progress towards achievement of the objective

Appendix B: Permission From M. Dean, Head of IB Research

From: Michael Dean <michael.dean@ibo.org>
Date: April 22, 2014 at 7:38:25 PM EDT
To: Christopher Schuster <cjs208@lehigh.edu>
Cc: George White <gpw1@lehigh.edu>
Subject: RE: IRB Request (Time Sensitive)

Hi Chris and to whom it may concern,

The IB will provide de-identified data and will not reveal information as to the specific source of the data.

As can anyone in the public domain, publically available documentation may be cited as part of research by Christopher Schuster.

Sincerely,

Michael Dean

Michael Dean

Head of Research

International Baccalaureate
Tel: +301 202 3122

Web: www.ibo.org

Appendix C: Meta-Questionnaire (MQ) Instruction Guide

Self-Study Questionnaire (SSQ): Diploma Programme

Introduction

The aim of the Self-Study Questionnaire (SSQ) is to measure the extent to which the International Baccalaureate Diploma Programme (IBDP) *Standards and Practices* have been implemented in each school. All IBDP schools are required to use the SSQ to conduct a self-study every five years. As part of my doctoral studies, I would very much appreciate your input to help me determine whether the SSQ is an effective tool. In other words, does it effectively measure the extent to which the IBDP *Standards and Practices* have been implemented in each school? The introduction you are currently reading is part of a collection of documents entitled the Meta-Questionnaire (MQ). I created the MQ to guide you through the relevant sections of the SSQ and to elicit your opinions about the SSQ items.

The MQ consists of three parts: a) the instruction guide you are currently reading which includes the complete list of IBDP *Standards and Practices*, b) the response section which asks you to rate the items in the SSQ. The items were designed to assess the extent to which each individual standard has been implemented, and c) two appendices including the complete SSQ and the document *What is an IB education?* (2012).

Overview of Your Role in the Study

This MQ is part of a larger study involving the validation of the IBDP Self-Study Questionnaire. You are participating in a portion of the study using a modified Delphi technique containing two rounds of analysis. There are five "experts" in this study. Three of the "experts" are IB coordinators and two of the experts are researchers

experienced in instrument design. The first round of analysis consists of you filling out the response sheet in this packet focused on rating the content validity of the SSQ and submitting it back to me. All comments made by you will remain anonymous and will be compiled with the anonymous comments of the other four participants. The second round of the process consists of you re-examining the SSQ through the lens of the compiled list of comments and making additional responses. You will then return the additional responses back to me. At that point, you will be finished participating in the study and I will send you the results. Though consensus is not necessary in this modified Delphi technique, it is my hope as a researcher that you will be able to largely agree on the strengths and weaknesses of the SSQ identified through this process.

The Self-Study Process

The self-study process is lengthy and complex. In its entirety, the SSQ can be overwhelming at first glance. This MQ is designed to simplify the SSQ by breaking it into its three main sections, philosophy, organization, and curriculum. I'm asking you to analyze each of these sections independently.

In order to understand the SSQ, you should first become familiar with the IBO Mission Statement, IB Learner Profile, and the IBDP *Standards and Practices*. The IBO Mission Statement and IB Learner Profile are described in detail in the IBO document entitled, *What is an IB education?* (2012). If you are unfamiliar with the IBDP, please take a few minutes to review the first three pages of the document, *What is an IB education?* (2012) before completing this Meta-Questionnaire.

The IBO considers its *Standards and Practices* to be the foundation of what it means for an educational institution to be an IB World School (Programme Standards and Practices, IBO, 2010). The *Standards* specify the type and level of performance

required by the IBO on various dimensions. The *Practices* are more detailed descriptions of the *Standards*. (Programme Standards and Practices, IBO, 2010) The IBO offers three programs, the Primary Years Programme for elementary school students, the Middle Years Programme for middle school students, and the Diploma Programme for high school students. The *Standards and Practices* are consistent for all three programs, but an additional component, *Requirements*, is individualized for each program. Since this study is concerned with the SSQ associated with the Diploma Programme, copies of the *Standards and Practices* with only Diploma Programme *Requirements* will be included. Relevant *Standards and Practices* will appear in this MQ as they pertain to the sections of the SSQ you are reviewing.

The SSQ has three main sections labeled Philosophy, Organization, and Curriculum. The following is an introduction to each section for your reference when completing the response section of the MQ.

Section 1: Philosophy

The IB Mission and Student Learner Profile combine to create a philosophy that is centered on both strong scholarly attributes and intercultural understanding. If you have not done so, please review the enclosed document, *What is an IB education?* (2012) to further understand the IB philosophy. The *Standards and Practices* for the SSQ philosophy section are listed below:

Philosophy

Standard A

The school's educational beliefs and values reflect IB philosophy.

Practices

1. The school's published statements of mission and philosophy align with those of the IB.
2. The governing body, administrative and pedagogical leadership and staff demonstrate understanding of IB philosophy.
3. The school community demonstrates an understanding of, and commitment to, the programme(s).

4. The school develops and promotes international-mindedness and all attributes of the IB learner profile across the school community.
5. The school promotes responsible action within and beyond the school community.
6. The school promotes open communication based on understanding and respect.
7. The school places importance on language learning, including mother tongue, host country language and other languages.
8. The school participates in the IB world community.
9. The school supports access for students to the IB programme(s) and philosophy.

Requirements for the Diploma Programme

a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.

b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.

c. The school has strategies in place to encourage students to attempt the full diploma.

Directions: After reviewing *Standard A* and its *Practices*, proceed to the Philosophy section of the response sheet. The instructions on the response sheet will show you how to evaluate the items in the SSQ section for this standard. You may want to refer back to this page as well as the self-study itself as you complete the Philosophy section of the response sheet. Once you have completed the Philosophy section of the response sheet, please continue on to the next section.

Section 2: Organization

A sound organizational structure is essential for building and maintaining any educational program, and the IBO considers leadership, resources and support to be integral to its program implementation. The *Standards and Practices* for the SSQ organization section are listed below:

Organization

Standard B1: Leadership and structure

The school's leadership and administrative structures ensure the implementation of the IB programme(s).

Practices

1. The school has developed systems to keep the governing body informed about the ongoing implementation and development of the programme(s).
2. The school has developed a governance and leadership structure that supports the implementation of the programme(s).
3. The head of school/school principal and programme coordinator demonstrate pedagogical leadership aligned with the philosophy of the programme(s).
4. The school has appointed a programme coordinator with a job description, release time, support and resources to carry out the responsibilities of the position.
5. The school develops and implements policies and procedures that support the programme(s).

Requirements for the Diploma Programme

a. The school has an admissions policy that clarifies conditions for admission to the school and the Diploma Programme.

b. The school develops and implements a language policy that is consistent with IB expectations.

c. The school develops and implements a special educational needs policy that is consistent with IB expectations and with the school's admissions policy.

d. The school develops and implements an assessment policy that is consistent with IB expectations.

e. The school has developed and implements an academic honesty policy that is consistent with IB expectations.

f. The school complies with the IB regulations and procedures related to the conduct of all forms of assessment for the Diploma Programme.

6. The school has systems in place for the continuity and ongoing development of the programme(s).
7. The school carries out programme evaluation involving all stakeholders.

Standard B2: Resources and support

The school's resources and support structures ensure the implementation of the IB programme(s).

Practices

1. The governing body allocates funding for the implementation and ongoing development of the programme(s).

Requirements for the Diploma Programme

a. The allocation of funds includes adequate resources and supervision for the creativity, action,service (CAS) programme and the appointment of a CAS coordinator.

b. The allocation of funds includes adequate resources to implement the theory of knowledge course over two years.

2. The school provides qualified staff to implement the programme(s).
3. The school ensures that teachers and administrators receive IB-recognized professional development.

Requirements for the Diploma Programme

a. The school complies with the IB professional development requirement for the Diploma Programme at authorization and at evaluation.

4. The school provides dedicated time for teachers' collaborative planning and reflection.
5. The physical and virtual learning environments, facilities, resources and specialized equipment support the implementation of the programme(s).

Requirements for the Diploma Programme

a. The laboratories and studios needed for group 4 and group 6 subjects provide safe and effective learning environments.

b. There are appropriate information technology facilities to support the implementation of the programme.

c. The school provides a secure location for the storage of examination papers and examination stationery with controlled access restricted to senior staff.

6. The library/multimedia/resources play a central role in the implementation of the programme(s).

Requirements for the Diploma Programme

a. The library/media centre has enough appropriate materials to support the implementation of the Diploma Programme.

7. The school ensures access to information on global issues and diverse perspectives.
8. The school provides support for its students with learning and/or special educational needs and support for their teachers.
9. The school has systems in place to guide and counsel students through the programme(s).

Requirements for the Diploma Programme

a. The school provides guidance to students on post-secondary educational options.

10. The student schedule or timetable allows for the requirements of the programme(s) to be met.

Requirements for the Diploma Programme

a. The schedule provides for the recommended hours for each standard and higher level subject.

b. The schedule provides for the development of the theory of knowledge course over two years.

c. The schedule respects concurrency of learning in the Diploma Programme.

11. The school utilizes the resources and expertise of the community to enhance learning within the programme(s).
12. The school allocates resources to implement the Primary Years Programme exhibition, the Middle Years Programme personal project and the Diploma Programme extended essay for all students, depending on the programme(s) offered.

Directions: After reviewing the organizational *Standards* and their *Practices*, proceed to section 2: Organization on the response sheet. The instructions on the response sheet will show you how to evaluate the items in the SSQ for this section. You may want to refer back to this page as well as the self-study itself as you complete the

Organization section of the response sheet. Once you have completed the Organization section of the response sheet, please continue on to the next section.

Section 3: Curriculum

The IB curriculum is rooted in an international philosophy centered on intercultural understanding. The curriculum is shared among all IB schools and supports the growth of students into globally engaged citizens. The *Standards and Practices* for the SSQ curriculum section are listed below:

Curriculum

Standard C1: Collaborative planning

Collaborative planning and reflection supports the implementation of the IB programme(s).

Practices

1. Collaborative planning and reflection addresses the requirements of the programme(s).

Requirements for the Diploma Programme

a. Collaborative planning and reflection includes the integration of theory of knowledge in each subject.

b. Collaborative planning and reflection explores connections and relations between subjects and reinforces knowledge, understanding and skills shared by the different disciplines.

2. Collaborative planning and reflection takes place regularly and systematically.
3. Collaborative planning and reflection addresses vertical and horizontal articulation.
4. Collaborative planning and reflection ensures that all teachers have an overview of students' learning experiences.
5. Collaborative planning and reflection is based on agreed expectations for student learning.
6. Collaborative planning and reflection incorporates differentiation for students' learning needs and styles.
7. Collaborative planning and reflection is informed by assessment of student work and learning.
8. Collaborative planning and reflection recognizes that all teachers are responsible for language development of students.
9. Collaborative planning and reflection addresses the IB learner profile attributes.

Note: "Collaborative planning and reflection" is used as a single concept as the two processes are interdependent.

Standard C2: Written curriculum

The school's written curriculum reflects IB philosophy.

Practices

1. The written curriculum is comprehensive and aligns with the requirements of the programme(s).

Requirements for the Diploma Programme

a. The curriculum fulfills the aims and objectives of each subject group and the core.

b. The curriculum facilitates concurrency of learning.

c. The curriculum is balanced so that students are provided with a reasonable choice of subjects.

d. The school develops its own courses of study for each subject on offer and for theory of knowledge.

2. The written curriculum is available to the school community.

3. The written curriculum builds on students' previous learning experiences.

4. The written curriculum identifies the knowledge, concepts, skills and attitudes to be developed over time.

5. The written curriculum allows for meaningful student action in response to students' own needs and the needs of others.

6. The written curriculum incorporates relevant experiences for students.

7. The written curriculum promotes students' awareness of individual, local, national and world issues.

8. The written curriculum provides opportunities for reflection on human commonality, diversity and multiple perspectives.

9. The written curriculum is informed by current IB publications and is reviewed regularly to incorporate developments in the programme(s).

10. The written curriculum integrates the policies developed by the school to support the programme(s).

11. The written curriculum fosters development of the IB learner profile attributes.

Standard C3: Teaching and learning

Teaching and learning reflects IB philosophy.

Practices

1. Teaching and learning aligns with the requirements of the programme(s).

Requirements for the Diploma Programme

a. Teaching and learning at the school addresses all of the aims and objectives of each subject.

2. Teaching and learning engages students as inquirers and thinkers.

3. Teaching and learning builds on what students know and can do.

4. Teaching and learning promotes the understanding and practice of academic honesty.

5. Teaching and learning supports students to become actively responsible for their own learning.

6. Teaching and learning addresses human commonality, diversity and multiple perspectives.

7. Teaching and learning addresses the diversity of student language needs, including those for students learning in a language(s) other than mother tongue.

8. Teaching and learning demonstrates that all teachers are responsible for language development of students.

9. Teaching and learning uses a range and variety of strategies.

10. Teaching and learning differentiates instruction to meet students' learning needs and styles.
11. Teaching and learning incorporates a range of resources, including information technologies.
12. Teaching and learning develops student attitudes and skills that allow for meaningful student action in response to students' own needs and the needs of others.
13. Teaching and learning engages students in reflecting on how, what and why they are learning.
14. Teaching and learning fosters a stimulating learning environment based on understanding and respect.
15. Teaching and learning encourages students to demonstrate their learning in a variety of ways.
16. Teaching and learning develops the IB learner profile attributes.

Standard C4: Assessment

Assessment at the school reflects IB assessment philosophy.

Practices

1. Assessment at the school aligns with the requirements of the programme(s).

Requirements for the Diploma Programme

a. Assessment of student learning is based on the objectives and assessment criteria specific to each subject.

2. The school communicates its assessment philosophy, policy and procedures to the school community.
3. The school uses a range of strategies and tools to assess student learning.
4. The school provides students with feedback to inform and improve their learning.
5. The school has systems for recording student progress aligned with the assessment philosophy of the programme(s).
6. The school has systems for reporting student progress aligned with the assessment philosophy of the programme(s).
7. The school analyses assessment data to inform teaching and learning.
8. The school provides opportunities for students to participate in, and reflect on, the assessment of their work.
9. The school has systems in place to ensure that all students can demonstrate consolidation of their learning through the completion of the Primary Years Programme exhibition, the Middle Years Programme personal project and the Diploma Programme extended essay, depending on the programme(s) offered.

Directions: After reviewing the organizational *Standards* and their *Practices*, proceed to section 3: Curriculum on the response sheet. The instructions on the response sheet will show you how to evaluate the items in the SSQ section for this section. You may want to refer back to this page as well as the self-study itself as you complete the Curriculum section of the response sheet. Once you have completed the Curriculum section of the response sheet, please submit the completed response sheet back to me.

Submitting your Response Sheet

Once you have completed all three sections of the MQ response sheet, please return it to me as quickly as possible. Please email me an electronic copy of the response sheet at cjs208@lehigh.edu

Appendix D: Delphi Study Meta-Questionnaire

Round 1: Response Sheet

Section 1: Philosophy

Standard A: Philosophy – The school's educational beliefs and values reflect IB philosophy.

Directions: The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question:

Does the item provide information about the extent to which school's educational beliefs and values reflect IB philosophy?

The SSQ is an exercise in self-reflection; the people from the school, the Self-Study Team, are providing the answers to these questions themselves. Each time the self-study team responds to one of the items on the SSQ, they *should* gain some information about how well they are implementing the IBDP standards and practices.

I would like for you, the members of the Delphi team, to consider whether the items and questions on the questionnaire do, in fact, provide insights regarding the implementation of the standards and practices. For each item in this section, please consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's educational beliefs and values reflect IB philosophy? Yes or no? For any item marked "No," please explain your rationale and provide recommendations for revisions. You may use additional space on the back of this document for longer comments.

Transcribe the school's mission statement.	What do you think the purpose of this item is and is it worthwhile? Please state purpose _____ _____ _____ _____

	Is it worthwhile? Yes _____ No ____
Has the school revised its philosophy/mission statement since authorization/the last evaluation? If yes, describe the process by which this was done and who was involved.	Do you think responding to this item will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
What strategies has the school implemented to encourage a higher degree of student participation in the Diploma Programme?	This item pertains to the Requirements for the Diploma Programme as follows: a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates. b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide. c. The school has strategies in place to encourage students to attempt the full diploma. Do you think responding to this item will help the self-study team learn how well the school is meeting these requirements? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions

	_____ _____ _____ _____ _____
Include a brief summary of the perceptions of the parent community regarding the implementation of the programme at the school and its impact on their children.	Do you think responding to this item will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____
Include a brief summary of the perception of the students regarding the implementation of the programme and its impact on them. Include the perceptions of graduates if the school has had the opportunity of involving them in the process.	Do you think responding to this item will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____

Official directions for establishing the 4 Likert Scale anchors read:

Deciding on the levels of implementation of each practice

When completing the self-study questionnaire, the school should indicate the level of implementation of each practice described in the document.

The self-study questionnaire section of this document contains tables that outline the Diploma Programme standards and practices. Indicate the level of implementation in the four columns to the right of each practice. The school must develop descriptors showing gradation from low level of implementation to high level of implementation. In order to ensure consistency, it is essential that all participants in this process have a common understanding of these descriptors. (p. 5 IBO Program Evaluation Guide and Self-Study Questionnaire: Diploma Programme.)

7.

Practice		Level of implementation			
		Low	→		High
1.	The school's published statements of mission and philosophy align with those of the IB.				
2.	The governing body, administrative and pedagogical leadership and staff demonstrate understanding of IB philosophy.				
3.	The school community demonstrates an understanding of, and commitment to, the programmes(s).				

Note on Item 7: The statements on the Likert scale on the following page make up the *Practices* portion of the Standard A section of the SSQ. All three standards have similar sections in the SSQ for their subsequent practices. You are only being asked to comment on the practices in this section. Each of the IB standards sections in the SSQ use the same 4-point Likert scale to evaluate the level of implementation of the relevant practices. Schools are required by IB to operationally define each of the four anchors on the Likert Scale and schools are to remain consistent with the definitions they create for each anchor throughout their completion of the SSQ.

Do you feel the current Likert Scale structure, including the directions, of the *Practices* section is adequate for this instrument?
Yes _____No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____

Do you think responding to these Likert Scale items will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy?

Practice		Level of implementation			
		Low →			High
4.	The school develops and promotes international-mindedness and all attributes of the IB learner profile across the school community.				
5.	The school promotes responsible action within and beyond the school community.				
6.	The school promotes open communication based on understanding and respect.				
7.	The school places importance on language learning, including mother tongue, host country language and other languages.				
8.	The school participates in the IB world community.				
9.	The school supports access for students to the IB programme(s) and philosophy.				
	a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.				
	b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.				
	c. The school has strategies in place to encourage students to attempt the full diploma.				

Yes _____No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____
_____

Additional Space for comments on Item 7:

2. **Conclusions on the standard**

I. **Complete the table.** ***(Indicate with X.)***

Standard A	Requires significant attention	Shows satisfactory development
The school's educational beliefs and values reflect IB philosophy.		

Note on Item 8: Each standard section of the SSQ has a portion labelled *Conclusions of the Standard*. The section items are consistent throughout each section of the SSQ, so you are only asked to evaluate the content validity of the *Conclusions of the Standard* on this Philosophy standard. Each *Conclusions of the Standard* section has the same four questions labelled a-d.

The conclusions section lists the standard exactly. The SSQ requires those completing the questionnaire to rate each standard either "Requires significant attention" or "Shows satisfactory development."

Do you feel the current response options in the table to the left are adequate for this instrument?

	Yes _____No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
m. **Describe any major achievement(s) related to this standard during the period under review.**	Do you think responding to this item will help the self-study team learn how well the school is implementing the standards and practices pertaining to Philosophy? Yes _____No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
n. **Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.**	Do you think responding to this item will help the self-study team learn how well the school is implementing the standards and practices pertaining to Philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____

o. **As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.**	Do you think responding to this item will help the self-study team learn how well the school is implementing the standards and practices pertaining to Philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
	The following rating scale with rationale has been created by the researcher to ask for a holistic rating on this entire Philosophy section of the Self-Study. It does not appear on the actual self-study. Overall Rating for Section 1: Philosophy Directions: Rate how well the SSQ measures the extent to which the school is implementing the standards and practices pertaining to Philosophy. (Circle or highlight one choice) Very poor Poor Adequate Good Excellent 1 2 3 4 5 Please give a rationale for your rating: _____ _____ _____ _____ _____

Section 2: Organization

Standard B1: Leadership and Structure – The school's leadership and administrative structure ensure the implementation of the Diploma Programme.

Directions: The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question:

Does the item provide information about the extent to which the school's leadership and administrative structure ensure the implementation of the Diploma Programme?

Update the following information.

a. Number of students currently enrolled at school in the two years in which the Diploma Programme is implemented

		Diploma Programme year 1	Diploma Programme year 2
1	Number of Diploma Programme certificate candidates		
2	Number of full Diploma Programme candidates		
3	Number of non-Diploma Programme students		
	TOTAL (1 + 2 + 3) *(Total number of students in the year of Diploma Programme implementation)*		

p. **Do IB students have to fulfil other mandated requirements (for example, national, local requirements)?** **Yes** ☐

Item 2 has multiple parts. Please view item 2 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions.

Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme?

Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____
_____

If the answer is yes, provide the following information: i. **Specify what type of requirements and in which year(s) of the Diploma programme they need to be fulfilled.** ii. **If the requirements were introduced or changed in the period under review, how did the school address them in order to comply with them and with the IB requirements?** q. **Do students have to meet admissions or selection criteria to be enrolled in the IB programme?** **Yes** ☐ iii. **If the answer is yes, describe the policy that the school applies.** iv. **Are the current criteria for enrolment of students in the IB programme a result of a change of policy in the period under review? If this is so, explain the reasons for the change.**	
3. **Governance** a. **Briefly describe the governance structure at the school and highlight any changes that have been made to it during the period under review.** b. **Describe how the governing body (or the educational authorities) is kept informed about the implementation of the Diploma Programme.**	Item 3 has multiple parts. Please view item 3 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the

	Diploma Programme? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____
Pedagogical leadership c. **Describe any changes in the structure and responsibilities of the pedagogical leadership team in charge of the implementation of the Diploma Programme that have occurred during the period under review and why they were implemented.** d. **If the Diploma Programme coordinator has other responsibilities besides the Diploma Programme coordination, indicate:** i. **additional responsibilities** ii. **percentage of his/her weekly schedule that is devoted to complying with his/her IB responsibilities as coordinator. (Indicate the whole weekly schedule of the coordinator at school, for example Mondays to Fridays from 9 am to 3.30 pm.)** **c. If the school offers online Diploma Programme courses, describe the**	Item 4 has multiple parts. Please view item 4 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____

role of the site-based coordinator. Indicate what other responsibilities he/she has at the school.	_____
Policies **Describe the process of revising the language, assessment, academic honesty and special educational needs policies at the school, including who was involved. Indicate when they were last revised.** e. **Language policy** f. **Assessment policy** g. **Academic honesty policy** h. **Special educational needs policy**	Item 5 has multiple parts. Please view item 5 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____ _____
Standard B2: Resources and Support – The school's resources and support structures ensure the implementation of the Diploma Programme. **Directions:** The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question:	

Does the item provide information about the extent to which the school's resources and support structures ensure the implementation of the Diploma Programme?

4. **Teachers and other staff who are involved in the implementation of the Diploma Programme** **Update the following information:** a. **Number of full-time teachers who are responsible for Diploma Programme courses** b. **Number of part-time teachers who are responsible for Diploma Programme courses** c. **Maximum Diploma Programme class size** r. **Describe the turnover of the staff involved in the implementation of the Diploma Programme in the period under review and how the school addressed any challenges in this area.**	Item 2 has multiple parts. Please view item 2 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____ _____
Collaborative planning and reflection **Identify the types and objectives of meetings that support the Diploma Programme implementation. Identify participants (for example,**	Item 3 is listed to the left. When the self-study team responds to this item, will they gain knowledge about how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions.

Diploma Programme subject teachers per subject group, all Diploma Programme subject and TOK teachers and CAS coordinators, Diploma Programme leadership team) and frequency. Use the table below.

Name of meeting	Who attends	Frequency of meeting	C

Do you think responding to all of the parts in this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme?

Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____
_____
_____

Administration of exams

Describe where the school stores examination papers and examination stationery in each examination session and who has access to these.

Do you think responding to this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme?

Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____

	_____
Teaching time s. **Number of weeks of instruction in the school year** t. **Number of instructional periods students receive in a week** u. **Length (in minutes) of each instructional period** v. **During the period under review, did the school make any adjustments in the student's weekly schedule to ensure that the recommended teaching hours for standard and higher level subjects and TOK are included and allow for concurrency of learning?** **Yes** ☐ **If the answer is yes, explain the changes that were implemented.**	Item 5 has multiple parts. Please view item 5 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____ _____
	The following rating scale with rationale has been created by the researcher to ask for a holistic rating on this entire Organization section of the Self-Study. It does not appear on the actual self-study. Consider both Standard B1 and B2 in your response. Overall Rating for Section 2: Organization Directions: Rate how well the SSQ measures the extent to which the

	school is implementing the standards and practices pertaining to Organization. (Circle or highlight one choice) Very poor Poor Adequate Good Excellent 1 2 3 4 5 Please give a rationale for your rating: _____ _____ _____ _____ _____ _____ _____

Section 3: Curriculum

Directions: The following items (**bolded)** are taken directly from pages of the SSQ. The curriculum section begins with a set of instructions and two items not associated with a curriculum standard. Please view the instructions and items holistically, and for each item consider the following: When the self-study team responds to these items, will they gain knowledge about whether the IB curriculum supports implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions.

How to complete this section: 1. **The teachers of each Diploma Programme subject group must meet and, after reaching a consensus, must complete the whole of Section C: Curriculum, which includes standards C1, C2, C3 and C4 for each subject group. If there is only one teacher from a subject group, he/she will complete the whole of Section C for that subject group.** 2. **Teachers responsible for TOK and CAS will follow the same procedure as described in 1 above.** 3. **When the first two steps have been completed, a group formed by one representative of each subject**	Do you think responding to this item will help the self-study team learn how well the school's curriculum supports the implementation of the Diploma Programme? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____

group, one representative from TOK and one from CAS must meet with the Diploma Programme coordinator and complete the whole of Section C, which will be included in the self-study questionnaire to be sent to the IB.

4. The documents completed by the subject group and TOK teachers and CAS coordinator, as described in 1 and 2 above, must be kept by the school because they may be requested by the IB as further evidence of the process. The overview of the achievement of the standards, as identified by each of these groups, should be provided in Chart 5.

Identify who was involved in the completion of this part of the questionnaire (C1, C2, C3 and C4).

Add rows as necessary.

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Describe the system that is in place for the induction of students into the Diploma Programme and how each student's programme of study is put together.

Standard C1: Collaborative Planning- Collaborative planning and reflection supports the implementation of the Diploma Programme

Note: Standard C1 of the SSQ only contains the Likert Scale questions and the subsequent *Conclusions of the Standard* sections you already commented on in the Philosophy section. There are no additional questions for you to rate.

Standard C2: Written Curriculum- The school's written curriculum reflects IB philosophy.

Directions: The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question:

Does the item provide information about the extent to which the school's written curriculum reflects IB Philosophy?

Indicate what subjects or levels were added to or removed from the offer to students and indicate the reasons for these decisions. If the school does not offer a subject from the group 6: the arts, explain why.	Do you think responding to this item will help the self-study team learn how well the school's written curriculum reflects IB Philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____

Standard C3: Teaching and Learning- Teaching and Learning reflects IB Philosophy

Note: Standard C3 of the SSQ only contains the Likert Scale questions and the subsequent *Conclusions of the Standard* sections you already commented on in the Philosophy section. There are no additional questions for you to rate.

Standard C4: Assessment- Assessment at the school reflects IB assessment philosophy

Directions: The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for

content validity by determining if the item answers the following question:

Does the item provide information about the extent to which assessment at the school reflects IB assessment philosophy?

Include a brief analysis of the examination results within the period under review and any action taken as a consequence (include Diploma Programme subjects, TOK and extended essays).	Do you think responding to this item will help the self-study team learn how much assessment at the school reflects IB assessment philosophy? Yes _____ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____ _____
	The following rating scale with rationale has been created by the

researcher to ask for a holistic rating on this entire Curriculum section of the Self-Study. It does not appear on the actual self-study. Consider the section before the standards you were asked to comment on as well as C2 and C4 in your response.

Overall Rating for Section 3: Curriculum

Directions: Rate how well the SSQ measures the extent to which the school is implementing the standards and practices pertaining to Curriculum.

Very poor	Poor	Adequate	Good
	Excellent		
1	2	3	4
	5		

Please give a rationale for your rating:

_____
_____
_____
_____
_____
_____
_____

Congratulations, you have completed the Round 1 Response Sheet! Thank you so much for your time and effort.

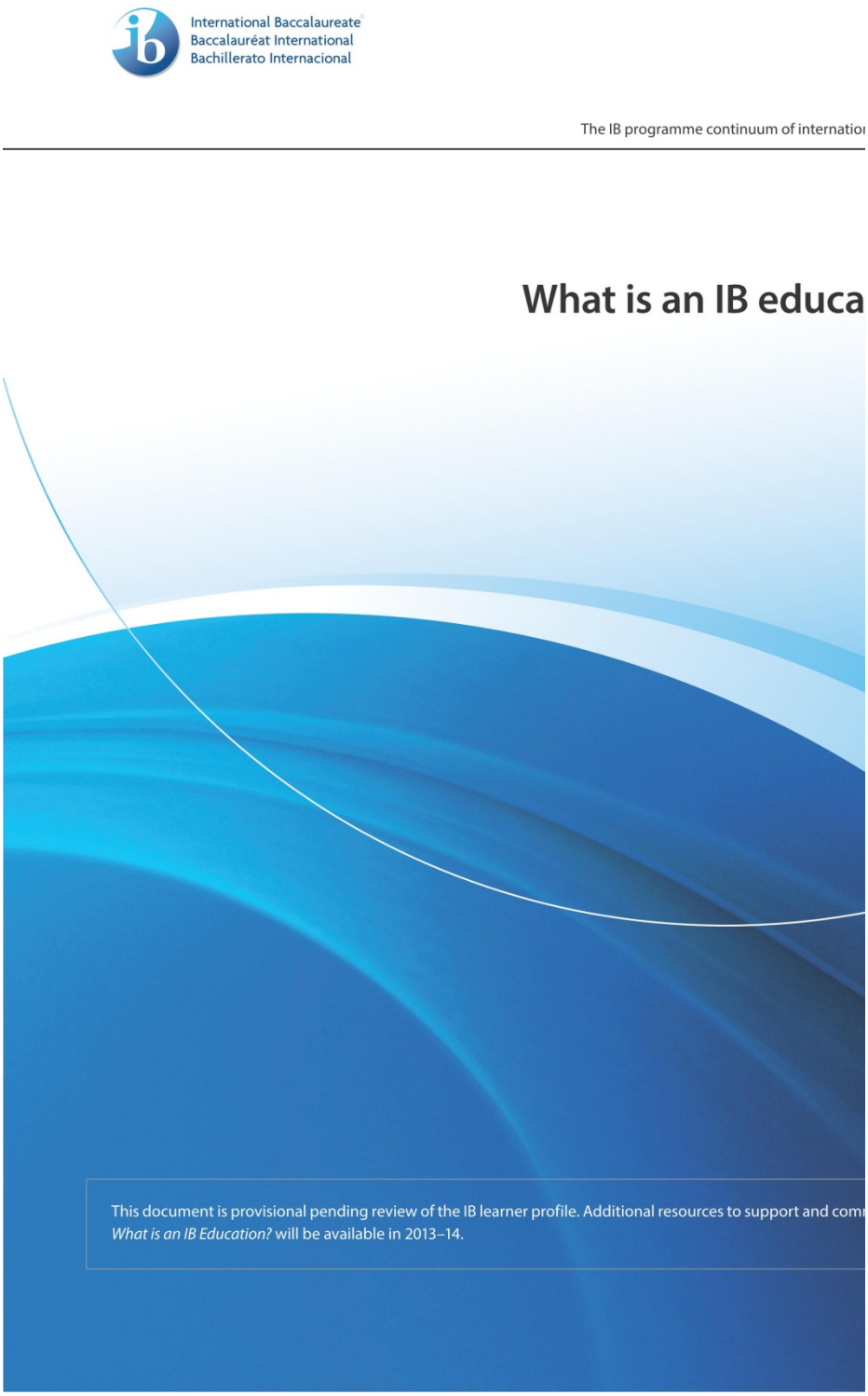
Please return this response sheet either electronically to cjs208@lehigh.edu or a hard copy to

Chris Schuster

Concordia International School Shanghai

999 Mingyue Rd. Jinqiao, Pudong

Shanghai, China 201206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This document is provisional pending review of the IB learner profile. Additional resources to support and com
What is an IB Education? will be available in 2013–14.

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The IB programme continuum of international education

What is an IB education?

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Item code

IB mission statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

IB learners strive to be:

Inquirers	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

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Introduction

The aim of this document is to communicate clearly what lies at the heart of an International Baccalaureate (IB) education. For educators, supporters, students and their families, it explains the ideals that underpin all IB programmes. By describing the IB's educational philosophy, *What is an IB Education?* also offers support for schools on their IB journey through programme authorization and ongoing implementation.

In 1968, the IB Diploma Programme (DP) was established to provide a challenging and comprehensive education that would enable students to understand and manage the complexities of our world and provide them with skills and attitudes for taking responsible action for the future. Such an education was rooted in the belief that people who are equipped to make a more just and peaceful world need an education that crosses disciplinary, cultural, national and geographical boundaries.

With the introduction of the Middle Years Programme (MYP) in 1994 and the Primary Years Programme (PYP) in 1997, the IB identified a continuum of international education for students aged 3 to 19. A decade later, the adoption of the IB learner profile across the continuum described internationally minded learners of all ages. The learner profile continues to provide important common ground for these challenging, stand-alone programmes, each developed as a developmentally appropriate expression of the IB's educational approach. The introduction of the IB Career-related Certificate (IBCC) in 2012 enriches this continuum by providing a choice of international education pathways for 16- to 19-year-old students.

The IB's work is informed by research and by over 40 years of practical experience. This overview honours the vision that launched the IB and sustains its growth today. The dynamic legacy of the IB's founders continues to support a growing global network of schools dedicated to high-quality education, ongoing professional development and shared accountability.

What is an IB education? aims to be informative, not definitive; it invites conversation and regular review. The IB has always championed a stance of critical engagement with challenging ideas, one that values the progressive thinking of the past while remaining open to future innovation. It reflects the IB's commitment to creating a collaborative, global community united by a mission to make a better world through education.

As the IB's mission in action, the learner profile concisely describes the aspirations of a global community that shares the values underlying the IB's educational philosophy. The IB learner profile describes the attributes and outcomes of education for international-mindedness.

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

IB learners strive to be:

Inquirers	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

Informed by these values, an IB education:

- centres on learners
- develops effective approaches to teaching and learning
- works within global contexts
- explores significant content.

Working together, these four characteristics define an IB education.

IB learners

At the centre of international education in the IB are students aged 3 to 19 with their own learning styles, strengths and limitations. Students of all ages come to school with combinations of unique and shared patterns of values, knowledge and experience of the world and their place in it.

Promoting open communication based on understanding and respect, the IB encourages students to become active, compassionate, lifelong learners. An IB education is holistic in nature—it is concerned with the whole person. Along with cognitive development, IB programmes address students' social, emotional and physical well-being. They value and offer opportunities for students to become active and caring members of local, national and global communities; they focus attention on the values and outcomes of internationally minded learning described in the IB learner profile.

IB learners strive to become inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced and reflective. These attributes represent a broad range of human capacities and responsibilities that go beyond intellectual development and academic success. They imply a commitment to help all members of the school community learn to respect themselves, others and the world around them.

IB programmes aim to increase access to the curriculum and engagement in learning for all students. Learning communities become more inclusive as they identify and remove barriers to learning and participation. Commitment to access and inclusion represents the IB learner profile in action.

The learner and the IB World School

The IB learner profile brings to life the aspirations of a community of IB World Schools dedicated to student-centred education. IB programmes promote the development of schools that:

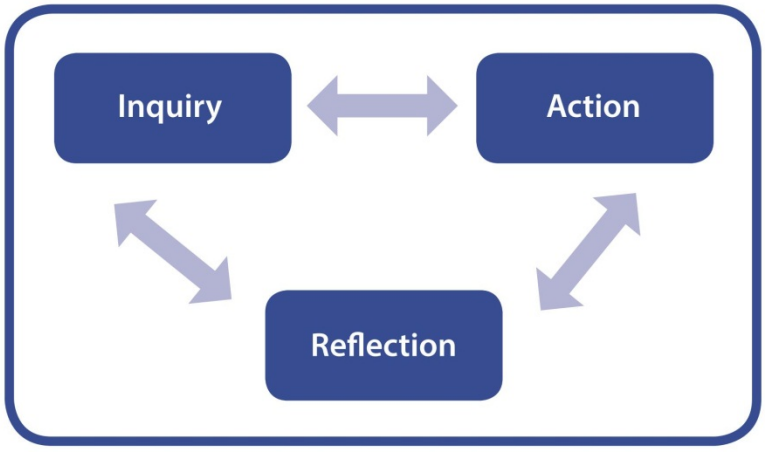
- create educational opportunities that encourage healthy relationships, individual and shared responsibility and effective teamwork and collaboration
- help students make informed, reasoned, ethical judgments and develop the flexibility, perseverance and confidence they need in order to bring about meaningful change
- inspire students to ask questions, to pursue personal aspirations, to set challenging goals and to develop the persistence to achieve them
- encourage the creation of rich personal and cultural identities.

These educational outcomes are profoundly shaped by the relationships between teachers and students; teachers are intellectual leaders who can empower students to develop confidence and personal responsibility. Challenging learning environments help students to develop the imagination and motivation they need in order to meet their own needs and the needs of others.

IB programmes emphasize learning how to learn, helping students interact effectively with the learning environments they encounter and encouraging them to value learning as an essential and integral part of their everyday lives.

Teaching and learning in the IB

Teaching and learning in the IB celebrates the many ways people work together to construct meaning and make sense of the world. Through the interplay of asking, doing and thinking, this constructivist approach leads towards open, democratic classrooms. An IB education empowers young people for a lifetime of learning, independently and in collaboration with others. It prepares a community of learners to engage with global challenges through inquiry, action and reflection.



Inquiry

Sustained inquiry forms the centrepiece of the written, taught and assessed curriculum in IB programmes. IB programmes feature structured inquiry both into established bodies of knowledge and into complex problems. In this approach, prior knowledge and experience establish the basis for new learning, and students' own curiosity provides the most effective provocation for learning that is engaging, relevant, challenging and significant.

Action

Principled action, as both a strategy and an outcome, represents the IB's commitment to teaching and learning through practical, real-world experience. IB learners act at home, as well as in classrooms, schools, communities and the broader world. Action involves learning by doing, which enhances learning about self and others. IB World Schools value action that encompasses a concern for integrity and honesty, as well as a strong sense of fairness that respects the dignity of individuals and groups.

Principled action means making responsible choices, sometimes including decisions not to act. Individuals, organizations and communities can engage in principled action when they explore the ethical dimensions of personal and global challenges. Action in IB programmes may involve service learning, advocacy and educating self and others.

Reflection

Critical reflection is the process by which curiosity and experience can lead to deeper understanding. Reflective thinkers must become critically aware of their evidence, methods and conclusions. Reflection also involves being conscious of potential bias and inaccuracy in one's own work and in the work of others.

An IB education fosters creativity and imagination. It offers students opportunities for considering the nature of human thought and for developing the skills and commitments necessary not only to remember, but also to analyse one's own thinking and effort—as well as the products and performances that grow from them.

Through inquiry, action and reflection, IB programmes aim to develop a range of competencies and dispositions that include skills for thinking, for working with others, for communicating, for managing self and for research.

Effective teaching and learning requires meaningful assessment. IB World Schools strive to clarify the purpose of student assessment, the criteria for success and the methods by which assessments are made. In IB programmes, assessment is ongoing, varied and integral to the curriculum. Assessment may be formal or informal, formative or summative, internal or external; students also benefit by learning how to assess their own work and the work of others.

IB students demonstrate what they know and can do through consolidations of learning, culminating with the PYP exhibition, the MYP personal project, the DP extended essay and the IBCC reflective project. The entire school community can be involved in providing feedback and support as students demonstrate their knowledge, understanding and mastery of skills.

Global contexts for education

Multilingualism and intercultural understanding

Global engagement

In our highly interconnected and rapidly changing world, IB programmes aim to develop international-mindedness in a global context. The terms "international" and "global" describe that world from different points of view—one from the perspective of its constituent parts (nation states and their relationships with each other) and one from the perspective of the planet as a whole. Sharp distinctions between the "local", "national" and "global" are blurring in the face of emerging institutions and technologies that transcend modern nation states. New challenges that are not defined by traditional boundaries call for students to develop the agility and imagination they need for living productively in a complex world.

An IB education creates learning communities in which students can increase their understanding of language and culture, which can help them to become more globally engaged.

Education for international-mindedness relies on the development of learning environments that value the world as the broadest context for learning. IB World Schools share educational standards and practices for philosophy, organization and curriculum that can create and sustain authentic global learning communities. In school, students learn about the world from the curriculum and from their interactions with other people. Teaching and learning in global contexts supports the IB's mission "to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect".

Multilingualism and intercultural understanding

For the IB, learning to communicate in a variety of ways in more than one language is fundamental to the development of intercultural understanding. IB programmes, therefore, support complex, dynamic learning through wide-ranging forms of expression. All IB programmes require students to learn another language.

Intercultural understanding involves recognizing and reflecting on one's own perspective, as well as the perspectives of others. To increase intercultural understanding, IB programmes foster learning how to appreciate critically many beliefs, values, experiences and ways of knowing. The goal of understanding the world's rich cultural heritage invites the IB community to explore human commonality, diversity and interconnection.

Global engagement

Global engagement represents a commitment to address humanity's greatest challenges in the classroom and beyond. IB students and teachers are encouraged to explore global and local issues, including developmentally appropriate aspects of the environment, development, conflicts, rights and cooperation and governance. Globally engaged people critically consider power and privilege, and recognize that they hold the earth and its resources in trust for future generations.

An IB education aims to develop the awareness, perspectives and commitments necessary for global engagement. The IB aspires to empower people to be active learners who are committed to service with the community.

Significant content

PYP	MYP	DP	IBCC
Primary Years Programme	Middle Years Programme	Diploma Programme	Career-related Certificate

An IB education provides opportunities to develop both disciplinary and interdisciplinary understanding that meet rigorous standards set by institutions of higher learning around the world. IB programmes offer curriculum frameworks and courses that are broad and balanced, conceptual and connected.

Broad and balanced

An IB education represents a balanced approach, offering students access to a broad range of content that spans academic subjects. In the PYP, learning aims to transcend boundaries between subject areas. As students develop in the MYP and DP, they engage subject-specific knowledge and skills with increasing sophistication.

Conceptual

Conceptual learning focuses on broad and powerful organizing ideas that have relevance within and across subject areas. They reach beyond national and cultural boundaries. Concepts help to integrate learning, add coherence to the curriculum, deepen disciplinary understanding, build the capacity to engage with complex ideas and allow transfer of learning to new contexts. PYP and MYP students encounter defined sets of key concepts, and students in the DP further develop their conceptual understanding.

Connected

IB curriculum frameworks value concurrency of learning. Students encounter many subjects simultaneously throughout their programmes of study; they learn to draw connections and pursue rich understandings about the interrelationship of knowledge and experience across many fields. Course aims and programme requirements offer authentic opportunities to learn about the world in ways that reach beyond the scope of individual subjects.

In the PYP, students learn about and use knowledge, concepts and skills from a variety of subjects to explore six transdisciplinary themes of global significance. In the MYP, students study a range of subjects and often bring together two or more established areas of expertise to build new interdisciplinary understanding. In the Diploma Programme, students encounter a range of subjects, and through the creativity, action, service (CAS) component of the DP core may continue their own explorations of physical activity and the creative process. Interdisciplinary DP courses and requirements offer students ways to explore new issues and understanding that reach across subjects, and the theory of knowledge (TOK) course helps students connect their learning across the curriculum.

In IB programmes, assessment forms an integral aspect of teaching and learning. To understand what students have learned and to monitor their progress, teachers use a range of assessment strategies that provide meaningful feedback. IB assessment supports good classroom practice by encouraging authentic performances of understanding that call for critical and creative thinking. Final assessments for older students in the IB continuum are internationally benchmarked. Assessment in the DP aims to balance valid measurement with reliable results, providing an internationally recognized university entrance qualification whose results are based on both coursework and external examinations.

Conclusion

An IB education is unique because of its rigorous academic and personal standards. IB programmes challenge students to excel not only in their studies but also in their personal growth. The IB aims to inspire a lifelong quest for learning hallmarked by enthusiasm and empathy. To that end, the IB gathers a worldwide community of supporters who celebrate our common humanity and who share a belief that education can help to build a better world.

The IB connects this higher purpose with the practical details of teaching and learning. A global community of IB World Schools put these principles into practice, developing standards for high-quality education to which they hold themselves mutually accountable. An IB education represents a testament to the power of this collaboration.

Education is an act of hope in the face of an always-uncertain future. An IB education calls forth the very best in students and educators alike. The IB believes that together we can help to prepare students for living and working in a complex, highly interconnected world.

Section 1: Philosophy

Standard A: Philosophy – The school's educational beliefs and values reflect IB philosophy.

Directions: The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question:

Does the item provide information about the extent to which school's educational beliefs and values reflect IB philosophy?

The SSQ is an exercise in self-reflection; the people from the school, the Self-Study Team, are providing the answers to these questions themselves. Each time the self-study team responds to one of the items on the SSQ, they *should* gain some information about how well they are implementing the IBDP standards and practices.

I would like for you, the members of the Delphi team, to consider whether the items and questions on the questionnaire do, in fact, provide insights regarding the implementation of the standards and practices. For each item in this section, please consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's educational beliefs and values reflect IB philosophy? Yes or no? For any item marked "No," please explain your rationale and provide recommendations for revisions. You may use additional space on the back of this document for longer comments. YOU ONLY WRITE ANSWERS IN THE RIGHT HAND COLUMN.

Transcribe the school's mission statement.	What do you think the purpose of this item is and is it worthwhile? Please state purpose: A mission statement encapsulates an organizations goals and hopes for the future. This item is worthwhile because the IB has its own mission statement as does each school. Therefore when a school wants to become authorized to offer the IB it is important that their own mission is in line with that of the IB. The school and the IB need to share the same goals. Is it worthwhile? Yes __X___ No ____
Has the school revised its philosophy/mission statement since authorization/the last evaluation? If	Do you think responding to this item will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy?

yes, describe the process by which this was done and who was involved.	Yes ___X__ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
What strategies has the school implemented to encourage a higher degree of student participation in the Diploma Programme?	This item pertains to the Requirements for the Diploma Programme as follows: a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates. b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide. c. The school has strategies in place to encourage students to attempt the full diploma. Do you think responding to this item will help the self-study team learn how well the school is meeting these requirements? Yes ___X__ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____

Include a brief summary of the perceptions of the parent community regarding the implementation of the programme at the school and its impact on their children.	Do you think responding to this item will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy? Yes __ No __X___ if no, please explain your rationale and give recommendations for revisions To some extent. Most schools will administer a survey to parents electronically. As with most surveys submitted this way they will most likely not get a representative sample or a particularly high turnout. Therefore the results may not truly represent the perceptions of the parent community.
Include a brief summary of the perception of the students regarding the implementation of the programme and its impact on them. Include the perceptions of graduates if the school has had the opportunity of involving them in the process.	Do you think responding to this item will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy? Yes __X___ No _____ if no, please explain your rationale and give recommendations for revisions
Official directions for establishing the 4 Likert Scale anchors read: **Deciding on the levels of implementation of each practice** **When completing the self-study questionnaire, the school should indicate the level of implementation of each practice described in the document.** **The self-study questionnaire section of this document contains tables that outline the Diploma Programme**	**Note on Item 7:** The statements on the Likert scale on the following page make up the *Practices* portion of the Standard A section of the SSQ. All three standards have similar sections in the SSQ for their subsequent practices. You are only being asked to comment on the practices in this section. Each of the IB standards sections in the SSQ use the same 4-point Likert scale to evaluate the level of implementation of the relevant practices. Schools are required by IB to operationally define each of the four anchors on the Likert Scale and schools are to remain consistent with the definitions they create for each anchor throughout their completion of the SSQ. Do you feel the current Likert Scale structure, including the directions, of the *Practices* section is adequate for this instrument?

standards and practices. Indicate the level of implementation in the four columns to the right of each practice. The school must develop descriptors showing gradation from low level of implementation to high level of implementation. In order to ensure consistency, it is essential that all participants in this process have a common understanding of these descriptors. (p. 5 IBO Program Evaluation Guide and Self-Study Questionnaire: Diploma Programme.)

7.

Practice		Level of implementation			
		Low	→		High
1.	The school's published statements of mission and philosophy align with those of the IB.				
2.	The governing body, administrative and pedagogical leadership and staff demonstrate understanding of IB philosophy.				
3.	The school community demonstrates an understanding of, and commitment to, the programmes(s).				

Yes __X___No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____

Do you think responding to these Likert Scale items will help the self-study team learn how well the school's educational beliefs and values reflect IB philosophy?

Yes __X___No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____
_____

Practice		Level of Implementation Low → High			
4.	The school develops and promotes international-mindedness and all attributes of the IB learner profile across the school community.				
5.	The school promotes responsible action within and beyond the school community.				
6.	The school promotes open communication based on understanding and respect.				
7.	The school places importance on language learning, including mother tongue, host country language and other languages.				
8.	The school participates in the IB world community.				
9.	The school supports access for students to the IB programme(s) and philosophy.				
	a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.				
	b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.				
	c. The school has strategies in place to encourage students to attempt the full diploma.				

Additional Space for comments on Item 7:

This Likert scale is appropriate since the purpose of a self-review is to gauge how the school community feels they is working towards implementing the standard and practices. Most Likert scales are either 5 or 7 points, so this 4 point scale is interesting because it does not allow a school to select a half way to implementation point.

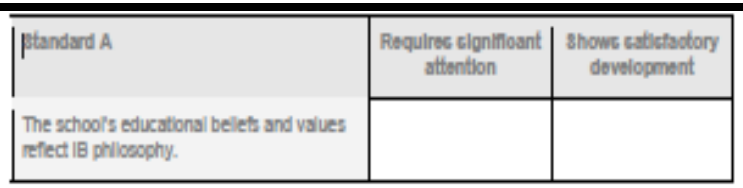
As a reader of self-study reports, I see the top two points (high) more as commendations, the school is doing well in terms of implementation and the bottom two (low) as recommendations. I am not sure if schools might consistently perceive high and low in this way.

5. **Conclusions on the standard**

w. **Complete the table.** ***(Indicate with X.)***

Note on Item 8: Each standard section of the SSQ has a portion labelled *Conclusions of the Standard*. The section items are consistent throughout each section of the SSQ, so you are only asked to evaluate the content validity of the *Conclusions of the Standard* on this Philosophy standard. Each *Conclusions of the Standard* section has the same four questions labelled a-d.

The conclusions section lists the standard exactly. The SSQ requires those completing the

	questionnaire to rate each standard either "Requires significant attention" or "Shows satisfactory development." Do you feel the current response options in the table to the left are adequate for this instrument? Yes _____No __X___ if no, please explain your rationale and give recommendations for revisions I feel that this should also be a Likert scale like that used to collect the data, since a conclusion should reflect / present a summary of the final outcome / overall perceptions for this standard.
a. **Describe any major achievement(s) related to this standard during the period under review.**	Do you think responding to this item will help the self-study team learn how well the school is implementing the standards and practices pertaining to Philosophy? Yes __X___No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
b. **Describe the progress made with regard to any IB recommendations for this standard from the previous evaluation process or from authorization.**	Do you think responding to this item will help the self-study team learn how well the school is implementing the standards and practices pertaining to Philosophy? Yes ___X__ No _____ if no, please explain your rationale and give recommendations for revisions

	_____ _____ _____ _____
c. **As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.**	Do you think responding to this item will help the self-study team learn how well the school is implementing the standards and practices pertaining to Philosophy? Yes __X___ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____
	The following rating scale with rationale has been created by the researcher to ask for a holistic rating on this entire Philosophy section of the Self-Study. It does not appear on the actual self-study. Overall Rating for Section 1: Philosophy Directions: Rate how well the SSQ measures the extent to which the school is implementing the standards and practices pertaining to Philosophy. (Circle or highlight one choice) Very poor Poor Adequate Good Excellent 1 2 3 4 5 Please give a rationale for your rating: 4

	The SSQ is an exercise in self-reflection and the rating on the scale gives the school an impression for how their community feels about the different aspects of their implementation of the IBDP standards and practices. It also provides an opportunity for the school to recognize and celebrate things they do well, and provide example of their own recommendations for strengthening the programme (this will be reflected in the action plan which the school also has to submit as part of the self-review process). This helps a school work towards a plan of continuous improvement, which is very healthy for schools.
Section 2: Organization **Standard B1: Leadership and Structure – The school's leadership and administrative structure ensure the implementation of the Diploma Programme.** **Directions:** The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question: Does the item provide information about the extent to which the school's leadership and administrative structure ensure the implementation of the Diploma Programme?	
Update the following information. **a. Number of students currently enrolled at school in the two years in which the Diploma Programme is implemented**	Item 2 has multiple parts. Please view item 2 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes _____ No ___X__ if no, please explain your rationale and give recommendations for

		Diploma Programme year 1	Diploma Programme year 2
1	Number of Diploma Programme certificate candidates		
2	Number of full Diploma Programme candidates		
3	Number of non-Diploma Programme students		
	TOTAL (1 + 2 + 3) *(Total number of students in the year of Diploma Programme implementation)*		

d. **Do IB students have to fulfil other mandated requirements (for example, national, local requirements)?** **Yes** ☐ **No** ☐

If the answer is yes, provide the following information:

i. **Specify what type of requirements and in which year(s) of the Diploma programme they need to be fulfilled.**

ii. **If the requirements were introduced or changed in the period under review, how did the school address them in order to comply with them and with the IB requirements?**

e. **Do students have to meet admissions or selection criteria to be enrolled in the IB programme?**

revisions

To some extent.

Part a) assumes that successful implementation can be measured by the number of Diploma students or an increase in Diploma students. It would be more accurate to measure the % of Diploma and non-Diploma students in the class. This is because the number of Diploma students may increase, but the % in the class may decrease. This could occur if the school is growing in size. I would recommend that this be the % of students in that class.

Part c) is important because the IB learning diversity/special educational needs policy states that "difference and diversity are central in IB World Schools". . . "all students enrolled in IB programmes should receive meaningful and equitable access to the curriculum. One way this can be measured is by looking at the selection criteria for students wanting to take the Diploma programme.

Another piece of data might be looking at the results of diagnostic data / GPA / externally assessed examination done in the year prior to entering the DP (e.g. IGCSE, National Exams) etc.

v. **If the answer is yes, describe the policy that the school applies.** vi. **Are the current criteria for enrolment of students in the IB programme a result of a change of policy in the period under review? If this is so, explain the reasons for the change.**	
6. **Governance** a. **Briefly describe the governance structure at the school and highlight any changes that have been made to it during the period under review.** b. **Describe how the governing body (or the educational authorities) is kept informed about the implementation of the Diploma Programme.**	Item 3 has multiple parts. Please view item 3 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes _____ No __X___ if no, please explain your rationale and give recommendations for revisions Other than at the time of authorization, it is my experience that the governing body has little to do with the implementation of the Diploma Programme on a day to day basis since governors are responsible for governance. The only way they would get information would be from parents (who elect them) or if the senior administrative team makes a presentation about the DP Programme. I am not sure if this happens regularly or systematically in schools.

Pedagogical leadership c. **Describe any changes in the structure and responsibilities of the pedagogical leadership team in charge of the implementation of the Diploma Programme that have occurred during the period under review and why they were implemented.** d. **If the Diploma Programme coordinator has other responsibilities besides the Diploma Programme coordination, indicate:** i. **additional responsibilities** ii. **percentage of his/her weekly schedule that is devoted to complying with his/her IB responsibilities as coordinator. (Indicate the whole weekly schedule of the coordinator at school, for example Mondays to Fridays from 9 am to 3.30 pm.)** **c. If the school offers online Diploma Programme courses, describe the role of the site-based coordinator. Indicate what other responsibilities he/she has at the school.**	Item 4 has multiple parts. Please view item 4 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes __X___ No _____ if no, please explain your rationale and give recommendations for revisions

Policies **Describe the process of revising the language, assessment, academic honesty and special educational needs policies at the school, including who was involved. Indicate when they were last revised.** e. **Language policy** f. **Assessment policy** g. **Academic honesty policy** h. **Special educational needs policy**	Item 5 has multiple parts. Please view item 5 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions. Do you think responding to all of the parts in this item will help the self-study team learn how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme? Yes _____ No __X___ if no, please explain your rationale and give recommendations for revisions Just because there is a policy it doesn't mean that it is being implemented. Policies should be translated into practice, so my recommendation for revision would be to ask for evidence of these practices to see how they tie directly to the policy.
Standard B2: Resources and Support – The school's resources and support structures ensure the implementation of the Diploma Programme. **Directions:** The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question: Does the item provide information about the extent to which the school's resources and support structures ensure the implementation of the Diploma Programme?	
2. **Teachers and other staff who are involved in the implementation of the Diploma Programme**	Item 2 has multiple parts. Please view item 2 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and

Update the following information:

a. **Number of full-time teachers who are responsible for Diploma** [ ]

b. **Number of part-time teachers who are responsible for Diploma** [ ]

c. **Maximum Diploma Programme class size** [ ] **students**

f. **Describe the turnover of the staff involved in the implementation of the Diploma Programme in the period under review and how the school addressed any challenges in this area.**

provide recommendations for revisions.

Do you think responding to all of the parts in this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme?

Yes _____ No __X___ if no, please explain your rationale and give recommendations for revisions

This item gives no idea whether the school has sufficient resources to run the programme, or if it has sufficient resources but is choosing not to spend it that way.

Collaborative planning and reflection

Identify the types and objectives of meetings that support the Diploma Programme implementation. Identify participants (for example, Diploma Programme subject teachers per subject group, all Diploma Programme subject and TOK teachers and CAS coordinators, Diploma Programme leadership team) and frequency. Use the table below.

Name of meeting	Who attends	Frequency of meeting	Objectives

Item 3 is listed to the left. When the self-study team responds to this item, will they gain knowledge about how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions.

Do you think responding to all of the parts in this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme?

Yes _____ No __X___ if no, please explain your rationale and give recommendations for revisions

To some extent. Just because there are meeting time schedules it does not mean that quality time is put aside during these meetings for IB teachers to be engaged in collaborative planning. Schools are busy places and meetings can be easily filled up with

other school matters.

It would be better for the school to provide evidence, for example meeting minutes, to show that collaborative planning is regular and systematized and maybe examples of teachers schedules to show that they are available for collaborative planning on certain periods.

Administration of exams

Describe where the school stores examination papers and examination stationery in each examination session and who has access to these.

Do you think responding to this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme?

Yes __X___ No _____ if no, please explain your rationale and give recommendations for revisions

_____
_____
_____
_____
_____
_____

Teaching time

g. **Number of weeks of instruction in the school year** ___

h. **Number of instructional periods students receive in a week** ___

i. **Length (in minutes) of each instructional period** ___

Item 5 has multiple parts. Please view item 5 holistically, and for each part consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's resources and support structures ensure the implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions.

Do you think responding to this item will help the self-study team learn how well the school's resources and support structures ensure the implementation of the Diploma Programme?

j. **During the period under review, did the school make any adjustments in the student's weekly schedule to ensure that the recommended teaching hours for standard and higher level subjects and TOK are included and allow for concurrency of learning?** **Yes** ☐ **No** ☐ **If the answer is yes, explain the changes that were implemented.**	Yes _____ No __X___ if no, please explain your rationale and give recommendations for revisions This item will let the reader determine whether the school schedule allows for HL subjects to be taught in 240 hours. SL subjects in 160 hours. However, school schedules typically experience lots of interruptions, so this question does not give a real indication of the actual number of hours of face-to-face instruction of the two years. This item also assumes that instruction is only face-to-face seat time. It does not include learning that takes place outside of the regular schedule (online components for example).
	The following rating scale with rationale has been created by the researcher to ask for a holistic rating on this entire Organization section of the Self-Study. It does not appear on the actual self-study. Consider both Standard B1 and B2 in your response. Overall Rating for Section 2: Organization Directions: Rate how well the SSQ measures the extent to which the school is implementing the standards and practices pertaining to Organization. (Circle or highlight one choice) Very poor Poor Adequate Good Excellent 1 **2** 3 4 5 Please give a rationale for your rating: 2 This section only validates parts of the school resources and schedule that are physically scheduled. It does not evaluate their quality.

Section 3: Curriculum

Directions: The following items (**bolded)** are taken directly from pages of the SSQ. The curriculum section begins with a set of instructions and two items not associated with a curriculum standard. Please view the instructions and items holistically, and for each item consider the following: When the self-study team responds to these items, will they gain knowledge about whether the IB curriculum supports implementation of the Diploma Programme? Yes or no? If you mark "No," please explain your rationale and provide recommendations for revisions.

How to complete this section: 1. **The teachers of each Diploma Programme subject group must meet and, after reaching a consensus, must complete the whole of Section C: Curriculum, which includes standards C1, C2, C3 and C4 for each subject group. If there is only one teacher from a subject group, he/she will complete the whole of Section C for that subject group.** 2. **Teachers responsible for TOK and CAS will follow the same procedure as described in 1 above.** 3. **When the first two steps have been completed, a group formed by one representative of each subject group, one representative from TOK and one from CAS must meet with the Diploma Programme coordinator and complete the whole of Section C, which will be included in the self-study questionnaire to be sent to the IB.** 4. **The documents completed by the subject group and TOK teachers and CAS coordinator, as described in 1 and 2 above, must be kept by the school because they may be requested by the IB as further evidence of the process. The overview of the achievement of the standards, as identified by each of these groups, should be provided in Chart 5.** **Identify who was involved in the completion of this part of the questionnaire (C1, C2, C3 and C4).**	Do you think responding to this item will help the self-study team learn how well the school's curriculum supports the implementation of the Diploma Programme? Yes __X___ No _____ if no, please explain your rationale and give recommendations for revisions _____ _____ _____ _____ _____ _____

Add rows as necessary.

Name or group	Position	Role in the completion of this part of the questionnaire *(eg leader, contributors)*

Describe the system that is in place for the induction of students into the Diploma Programme and how each student's programme of study is put together.

Standard C1: Collaborative Planning- Collaborative planning and reflection supports the implementation of the Diploma Programme

Note: Standard C1 of the SSQ only contains the Likert Scale questions and the subsequent *Conclusions of the Standard* sections you already commented on in the Philosophy section. There are no additional questions for you to rate.

Standard C2: Written Curriculum- The school's written curriculum reflects IB philosophy.

Directions: The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question:

Does the item provide information about the extent to which the school's written curriculum reflects IB Philosophy?

Indicate what subjects or levels were added to or removed from the offer to students and indicate the reasons for these decisions. If the school does not offer a subject from the group 6: the arts, explain why.	Do you think responding to this item will help the self-study team learn how well the school's written curriculum reflects IB Philosophy? Yes _X___ No _____ if no, please explain your rationale and give recommendations for revisions If a group 6 subject is missing, it would raise a question about whether the school is offering students a broad / holistic course of study which is an important part of IB Philosophy.
Standard C3: Teaching and Learning- Teaching and Learning reflects IB Philosophy **Note:** Standard C3 of the SSQ only contains the Likert Scale questions and the subsequent *Conclusions of the Standard* sections you already commented on in the Philosophy section. There are no additional questions for you to rate.	
Standard C4: Assessment- Assessment at the school reflects IB assessment philosophy **Directions:** The following items (**bolded)** on the left hand column are taken directly from pages of the SSQ. In the right hand column, rate each item for content validity by determining if the item answers the following question: Does the item provide information about the extent to which assessment at the school reflects IB assessment philosophy?	
Include a brief analysis of the examination results within the period under review and any action taken as a consequence (include Diploma Programme subjects, TOK and extended essays).	Do you think responding to this item will help the self-study team learn how much assessment at the school reflects IB assessment philosophy? Yes _____ No __X___ if no, please explain your rationale and give recommendations for revisions I am not sure what an analysis of examination results will really tell us about assessment practices and approaches to teaching and learning. Once, again it would be better for the school to provide evidence of their assessment policy in practice.

	The following rating scale with rationale has been created by the researcher to ask for a holistic rating on this entire Curriculum section of the Self-Study. It does not appear on the actual self-study. Consider the section before the standards you were asked to comment on as well as C2 and C4 in your response. Overall Rating for Section 3: Curriculum Directions: Rate how well the SSQ measures the extent to which the school is implementing the standards and practices pertaining to Curriculum. Very poor — Poor — Adequate — Good — Excellent 1 — 2 — **3** — 4 — 5 Please give a rationale for your rating: The lack of evidence in the form of classroom practices to demonstrate the IB's approaches to teaching and learning is what is missing. As they say, it is easy to 'talk the talk', but schools need to show that they 'walk the walk'

Congratulations, you have completed the Round 1 Response Sheet! Thank you so much for your time and effort.
Please return this response sheet either electronically to mrschuster@hotmail.com or a hard copy to
Chris Schuster
Concordia International School Shanghai
999 Mingyue Rd. Jinqiao, Pudong
Shanghai, China 201206

Section 1: Philosophy

Standard A: Philosophy – The school's educational beliefs and values reflect IB philosophy.

Directions: The questions listed on this Round 2 questionnaire had at least 2 of the 5 members of the Delphi team mark the question negatively on the round 1 questionnaire, suggesting there may be a content validity issue. Please review all Delphi team responses and reconsider each question in light of the ideas expressed by Delphi team members. After considering Delphi team responses, provide your own feedback by adding additional comments and possibly recommending changes to the IB Self-Study Questionnaire (SSQ) prompt.

The goal of Round 2 is to reach as much consensus as possible and to provide recommendations to improve the instrument.

Example: The first question reads "Transcribe the school's mission statement". After reading the 2 negative responses, you may view the question and its purpose in a new light. Here are 2 sample responses:

Sample Feedback and Suggestions Response 1:

I agree this question does not help the self-study team gain knowledge about how well the school's educational beliefs reflect IB Philosophy. I suggest they add a follow-up question such as "How does your school's mission statement reflect IB Philosophy?"

Sample Feedback and Suggestions Response 2:

I disagree with these comments and believe this question is valid.

Remember:

The actual SSQ is an exercise in self-reflection; the people from the school, known as the Self-Study Team, are providing the answers to these questions themselves. Each time the self-study team responds to one of the items on the SSQ, they *should* gain some information about how well they are implementing the IBDP standards and practices. Please consider this when making your recommendations.

For each item in this section, please consider the following: When the self-study team responds to this item, will they gain knowledge about how well the school's educational beliefs and values reflect IB philosophy?

PLEASE ONLY WRITE COMMENTS IN THE RIGHT HAND COLUMN LABELED *FEEDBACK AND SUGGESTIONS*.

Original SSQ Question: **2. Transcribe the school's mission statement.** 2 of 5 responses to this question were negative.	
Response 1: I believe that IBO wants to confirm the school's commitment to providing an educational	Feedback and Suggestions:

program that is compatible with the ideals published by the international organization. Since this was required during the application process, I think that including it here is somewhat redundant. I do not believe this to be a worthwhile item in that IBO should already have this information on file. Schools should be asked to supply this information only if the mission statement has been revised since the school was authorized as a world school or since the school completed its last five-year self-study. **Response 2:** Clerical only production of a record entry for record keeping purposes. Specifically, as a transcription, it can offer no indication regarding the extent to which IBDP standards and practices are implemented	I believe there is value in a school restating its mission statement for three reasons 1. Some schools do review their mission statement (question A.3 reflects this) regularly. Therefore it is important to know that any changes still reflect the mission of the IBO. 2. This question gives the IB an opportunity to check that there is alignment between the IB and schools mission statements, which is a very important requirement for meeting Standard A ("The school's educational beliefs and values reflect IB philosophy"). It should not be taken for granted that there is alignment. For example, one crucial aspect of the IB mission that can be missing from some schools is international mindedness. 3. It gives a school an opportunity to revisit their mission statement. Some schools are good at having the mission embedded in day-to-day practices, it very much alive and visible but this is not evident in every school. To revisit the mission gives a school an opportunity to reflect on why they do what they do, which I believe is an important exercise in self-reflection.

<table>
<tr><td colspan="2">Original SSQ Question: 3. Has the school revised its philosophy/mission statement since authorization/the last evaluation? If yes, describe the process by which this was done and who was involved.
2 out of 5 responses to this question were negative.</td></tr>
<tr><td>Response 1: Again, as I noted in the preceding response, I believe that IBO is simply confirming that the school's mission statement reflects values and goals that are compatible with the IB program. To ask someone to describe the process by which a revision to a policy is made does not have a strong connection to the successful administration of the IB Diploma Programme within an authorized school.
Response 2: The stated question centres on the process of change and the identification of the agents involved within it. In essence the question becomes: is school improvement a community-wide practice or not? At best the answer to this question would provide only indirect evidence of the causal linkage between educational beliefs and values and the IB philosophy.</td><td>Feedback and Suggestions:

If a school has revised its mission then it would be helpful to know which stakeholders (agents) were involved. It would be important from the IB perspective to check that a school offering the IB Programme to check that there were representatives from the IB community involved to be sure that schools education beliefs and values reflect the IB philosophy.

I am not sure of the value in describing the process. What would be of value would knowing which stakeholders were involved. For example, was their representation from the IB community: Programme Cordinator(s), parents, students, teachers</td></tr>
<tr><td colspan="2">Original SSQ Question: 5. Include a brief summary of the perceptions of the parent community regarding the implementation of the programme at the school and its impact on their children.
3 out of 5 responses to this question were negative.</td></tr>
<tr><td>Response 1: Most of the parents seem to view the program as a means to get their students into better colleges, even though they have been invited to information sessions regarding the intent of the IB Diploma Programme and its true value to students preparing for life after high school. The implementation of the programme as viewed by the parents does not correspond with how well the school's educational beliefs</td><td>Feedback and Suggestions:

I agree with response 1 that many parents see the DP as a route for getting their child</td></tr>
</table>

and values reflect IBO's philosophy. This statement is too general: there is no direction to support the school in its work with parents in the self-study process. **Response 2:** To some extent. Most schools will administer a survey to parents electronically. As with most surveys submitted this way they will most likely not get a representative sample or a particularly high turnout. Therefore the results may not truly represent the perceptions of the parent community. **Response 3:** The stated question centres parental perception, and begs a further supposition regarding management of parents' perceptions of the impact of the IBDP on their children. The answer to this question would provide no credible evidence between educational beliefs and values and the IB philosophy. To put it differently, there may excellent alignment between educational beliefs of the school and values and the IB philosophy but parental perception may be entirely different.	into a <u>better</u> university (certainty in the US) but it is not the only reason. For students going to schools in the UK, Europe, Australia etc. the IBDP is still seen by parents as the <u>easiest</u> route to university. That being said, there are parents who <u>value</u> the DP for the educational value it provides their child. For these parents it is not all about getting into a better school. Having read parent perceptions surveys submitted for a 5-year review, spoken to parents during authorization visits, and spoken with parents at my own school parents know more about the programme than we often given them credit for. For examples parents regularly cite involvement in CAS, and the learning opportunities provided by TOK and EE as being of immense value and the reason why is worth doing the Diploma. Their perceptions are important because they tell a school what they are doing well and what they need to strengthen with respect to the implementation of the

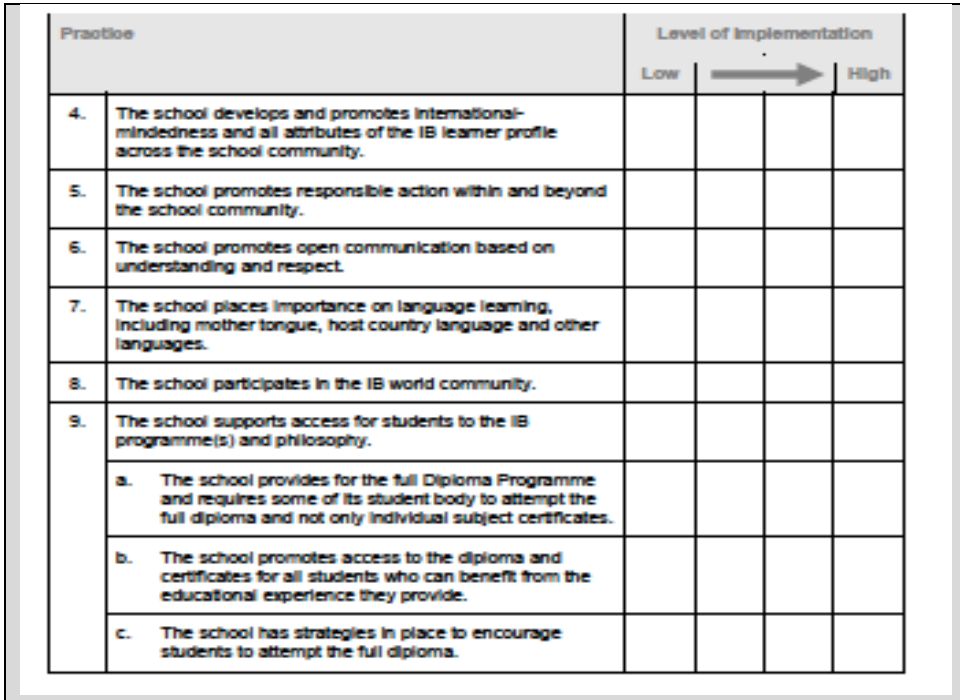
	programme. A school where the parent community only see the Diploma as a route for their child getting into a better school, may indicate that there are gaps in the way it is communicating and promoting the Diploma. Receiving this type of feedback is important that could become something to address in their action plan for the new 5-year cycle.
Original SSQ Question: **6. Include a brief summary of the perception of the students regarding the implementation of the programme and its impact on them. Include the perceptions of graduates if the school has had the opportunity of involving them in the process.** 2 out of 5 responses to this question were negative.	
Response 1: The students are the best source of information about how well the IB programme prepared them for college, but their experiences do not reflect how well the high school's educational beliefs and values reflect IB philosophy. Most of the students seem to be unaware that there should be such an easily discernible connection, and the value of including this requirement in the self-study is dubious. **Response 2:** The stated question centres student perception, and begs a further supposition regarding management of students' perceptions of the impact of the IBDP on them. The answer to this question would provide no credible evidence between educational beliefs and values and the IB philosophy. To put it differently, there may excellent alignment between educational beliefs of the school and values and the IB philosophy but student perception may be entirely different.	Feedback and Suggestions: The reasons given above regarding parent perceptions applies here also. Response 1 I think there is value in asking graduates their perceptions of the programme once they have left. My conversations and the feedback I have received from graduates has shown that the impact of the programmes philosophy is substantial. It is all about asking them the right kinds of questions to illicit this information.

	Response 2. The mission is the goals and aspirations a school has for its students. A school has not done its job if its mission is not translated to students via learning outcomes, values, attitudes, dispositions. The students should be able to think, see, feel (perceive) these. Suggestion. I think that a school should involve graduates in the process.
Original SSQ Directions for Question 7: **Deciding on the levels of implementation of each practice** **When completing the self-study questionnaire, the school should indicate the level of implementation of each practice described in the document.** **The self-study questionnaire section of this document contains tables that outline the Diploma Programme standards and practices. Indicate the level of implementation in the four columns to the right of each practice. The school must develop descriptors showing gradation from low level of implementation to high level of implementation. In order to ensure consistency, it is essential that all participants in this process have a common understanding of these descriptors.** (p. 5 IBO Program Evaluation Guide and Self-Study Questionnaire: Diploma Programme.) 3 out of 5 responses to these directions were negative. Response 4 was made in the additional comments section for Item 7 from a participant who rated the directions positively.	
Response 1: As my school completed this self-study, we found it difficult to record our responses using the Likert Scale, for the information regarding the descriptors was not as clear as we needed it to be. Moreover, these levels lacked the norming that we expect when we complete such surveys; within this process, we were to develop the descriptors we used to complete the questionnaires, and that added a layer of subjectivity to the process that we considered unacceptable. IB should offer online workshops at no cost to the schools to support the high schools' IB administrative teams/academic communities in the completion	Feedback and Suggestions: The self-study guide says that "The school must develop descriptors showing gradation from low level of implementation to high level of implementation. In order to

of the self-study, and the workshops should allow for "calibration" work, as those involved with the self-study score sample data. **Response 2:** "In order to ensure consistency, it is essential that all participants in this process have a common understanding of these descriptors." I don't understand what exactly this final sentence is asking of the participants. How will you know whether the participants actually have a common understanding of the descriptors? **Response 3:** Whilst I like the freedom to set operational definitions in-house, these definitions, in my experience, are vague and constructed to 'catch all.' As a result their specificity and accuracy is severely limited and hence tracking progress in achieving them is also inexact. **Response 4:** Without seeing the operational definitions of anchors, it is hard to evaluate whether the semantic differential rating scale adequately profiles the level of implementation of the practices under the standard of Philosophy.	ensure consistency it is essential that all participants in this process have a common understanding of these descriptors." I agree with the responses about the need for the IB to provide support to calibrate and operationalize the scale so there is a common understanding among the stakeholders to increase the validity of the results. A suggestion would be for the IB should provide the descriptors.

Original SSQ example of Likert Scale:

Practice		Level of implementation			
		Low	→		High
1.	The school's published statements of mission and philosophy align with those of the IB.				
2.	The governing body, administrative and pedagogical leadership and staff demonstrate understanding of IB philosophy.				
3.	The school community demonstrates an understanding of, and commitment to, the programmes(s).				

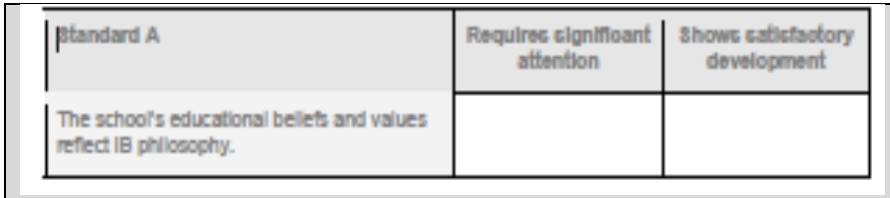


	Practice	Level of Implementation (Low → High)			
4.	The school develops and promotes international-mindedness and all attributes of the IB learner profile across the school community.				
5.	The school promotes responsible action within and beyond the school community.				
6.	The school promotes open communication based on understanding and respect.				
7.	The school places importance on language learning, including mother tongue, host country language and other languages.				
8.	The school participates in the IB world community.				
9.	The school supports access for students to the IB programme(s) and philosophy.				
	a. The school provides for the full Diploma Programme and requires some of its student body to attempt the full diploma and not only individual subject certificates.				
	b. The school promotes access to the diploma and certificates for all students who can benefit from the educational experience they provide.				
	c. The school has strategies in place to encourage students to attempt the full diploma.				

3 out of 5 responses to the Likert Scales were negative. Responses 4 and 5 were made in the additional comments section for Item 7 from the two participants who rated the scale positively.

Response 1: These questions are double loaded. The problem with double loading is that someone could think that the mission is aligned with the IB, but maybe the philosophy is not. The same problem exists in #2…the answers for administrative and/or pedagogical leadership and/or staff may be different. For #3, understanding and commitment may be different…A school could demonstrate understanding without necessarily demonstrating commitment. #5 – A school could demonstrate within and/or beyond – ask about ONE thing in each question. #6 is probably ok because you are asking about open communication. #7 is triple loaded… if it is not important for a school to attend to all three, then add and/or and you could probably keep this as one question. However, if it is important for you to know specifically how schools address language learning, then revise into three separate questions. #9b is a confusing question. I'm not sure what you are asking.	Feedback and Suggestions: I agree with response 1 and 4. Suggestions. Don't double load the questions. Calibrate the scale.

These questions need to be revised so that each question asks about only ONE concept. Otherwise, respondents will not necessarily know how to respond and you will not be able to make sense of their answers **Response 2:**Given the subjectivity inherent in school-generated descriptors and the associated absence of norming within the process, IB needs to conduct no-cost workshops for the schools involved in this process so that some calibration/norming might occur. **Response 3:** The stated directions centred on establishing levels of implementation focuses on in-house operational definitions and a common understanding of them. In essence the instruction asks for the methodology put in place to decide on implementation levels and does provide evidence to ascertain how well the school's educational beliefs and values reflect IB philosophy. **Response 4:**Transposing individual practices into the SSQ directly causes many instances of double-barreled questions. A double-barrel question combines two or more issues or attitude objects in a single item. Take Practice 2 as an example. This single item asks about four different issues: (1) the governing body demonstrates understanding of IB philosophy; (2) the administrative staff demonstrates understanding of IB philosophy; (3) the pedagogical leadership staff demonstrates understanding of IB philosophy; and (4) the staff demonstrates understanding of IB philosophy. Each of these four issues may elicit a different perception from the respondent; combining them into one question makes it unclear which perception is being measured. Once a respondent answers the question, it is impossible for you as the researcher to know which *barrel* of the question was answered. Similar problem exists with Practices 3, 4, 5, 7, 9a, and 9b. **Response 5:**This Likert scale is appropriate since the purpose of a self-review is to gauge how the school community feels they is working towards implementing the standard and practices. Most Likert scales are either 5 or 7 points, so this 4 point scale is interesting because it does not allow a school to select a half way to implementation point. As a reader of self-study reports, I see the top two points (high) more as commendations, the school is doing well in terms of implementation and the bottom two (low) as recommendations. I am not sure if schools might consistently perceive high and low in this way.	
Original SSQ Question: **8a. Conclusions on the standard** **Complete the table. *(Indicate with X.)***	



Standard A	Requires significant attention	Shows satisfactory development
The school's educational beliefs and values reflect IB philosophy.		

4 out of 5 responders rated this question negatively.

Response 1: The response options do not allow for any "middle" response. The school has either satisfactorily addressed the standards or the standard "requires significant attention." Since some schools may be close to meeting the standards and need only a little remediation, the absolute nature of these response options precludes the possibility that a school might be "almost there." IBO should allow for a qualified response instead of requiring that a school choose between only two options. **Response 2:** The conclusion concerning the standard should be based on a summative rating of the individual practices shown above. While a subjective evaluation can be used for the purpose of triangulation, an open-ended explanation to the chosen rating scale should be required as rationale. **Response 3**: I feel that this should also be a Likert scale like that used to collect the data, since a conclusion should reflect / present a summary of the final outcome / overall perceptions for this standard. **Response 4**: It would appear that these responses are structured to provide an ease of clerical overview in tracking general compatibility with IB standards and practices. The options provide enormous scope for interpretation and, therefore, by their very nature, cannot provide specific and focused aims for improved practice.	Feedback and Suggestions: I agree with the respondents and the suggestions made that the conclusion should be summative, either in narrative form or an operationally defined Likert scale.

Original SSQ Question: **8b. Describe any major achievement(s) related to this standard during the period under review.**

2 out of 5 responders rated this question negatively.

Response 1: Most schools will likely select the "satisfactory" option, since the instructions provided are ambiguous and allow for too much subjectivity. **Response 2:** The question centres on the "what" of achievements not the "why" of philosophy. Obviously, these are very different qualities- asking about what cannot provide and understanding of why.	Feedback and Suggestions: This question allows schools to share the achievements they have made towards implementing the philosophy of the IB through the standard and practices.

Original SSQ Question: **8c. Describe the progress made with regard to any IB recommendations for this standard from the**

<table>
<tr><td colspan="2">previous evaluation process or from authorization.
2 out of 5 responders rated this question negatively.</td></tr>
<tr><td>Response 1: Again, given the subjective nature of this item, schools will likely supply answers that are predictably general and complimentary (of the school's implementation of the standards and practices pertaining to Philosophy). IBO should conduct online video discussions with members of the school's self-study team in order to more effectively judge how well the school is implementing all the IB standards, practices, and philosophies.
Response 2: The question centres on the "what" of progress not the "why" of philosophy. Obviously, these are very different qualities- asking about what cannot provide and understanding of why.</td><td>Feedback and Suggestions:

Recommendations from the previous 5-year review will have been written into the action plan at the time of this review. This question asks whether these recommendations have actually been acted on. It allows a school to reflect on the extent to which it has done what it said it would do.</td></tr>
<tr><td colspan="2">Original SSQ Question: 8d. As a result of this self-study, describe the current school practice(s) that has/have been identified as in need of further development or improvement.
2 out of 5 responders rated this question negatively.</td></tr>
<tr><td>Response 1: What school would want to identify areas as "in need of further development or improvement"? Again, IBO should conduct video interviews if site visits are too costly in order to assess how well the school is performing as an IB World School.
Response 2: The question centres on the "what" of identified practices not the "why" of philosophy. Obviously, these are very different qualities- asking about what cannot provide and understanding of why</td><td>Feedback and Suggestions:

I disagree with response 1. Schools should be places of continual reflection and improvement. Therefore, as part of this processes a school needs to be able to reflect and identify areas "in need of further development or improvement". These can form part of the action plan for moving forward.</td></tr>
<tr><td colspan="2">Section 2: Organization
Standard B1: Leadership and Structure – The school's leadership and administrative structure ensure the implementation of the Diploma Programme.</td></tr>
</table>

For each item in this section, please consider the following: Does the item provide information about the extent to which the school's leadership and administrative structure ensure the implementation of the Diploma Programme?

This Box Contains all of the sections of Question 2. Respondents were asked to view this section holistically:
Update the following information.

a. Number of students currently enrolled at school in the two years in which the Diploma Programme is implemented

		Diploma Programme year 1	Diploma Programme year 2
1	Number of Diploma Programme certificate candidates		
2	Number of full Diploma Programme candidates		
3	Number of non-Diploma Programme students		
	TOTAL (1 + 2 + 3) *(Total number of students in the year of Diploma Programme implementation)*		

k.	**Do IB students have to fulfil other mandated requirements (for example, national, local requirements)?**	**Yes**		**No**	

If the answer is yes, provide the following information:

i. **Specify what type of requirements and in which year(s) of the Diploma programme they need to be fulfilled.**
ii. **If the requirements were introduced or changed in the period under review, how did the school address them in order to comply with them and with the IB requirements?**

l.	**Do students have to meet admissions or selection criteria to be enrolled in the IB programme?**	**Yes**		**No**	

i.If the answer is yes, describe the policy that the school applies.

ii. Are the current criteria for enrolment of students in the IB programme a result of a change of policy in the period under review? If this is so, explain the reasons for the change. **3 out of 5 responders rated this question negatively.**	
Response 1: There are a few recommendations here: 1. The overall school-wide participation rate of DP is preferred. 2. The participation rate of students of different genders, home languages, home educational environment would be helpful too. 3. The differentiated academic preparation of students who are in DP vs. those who are not can be useful as well. **Response 2:** To some extent. Part a) assumes that successful implementation can be measured by the number of Diploma students or an increase in Diploma students. It would be more accurate to measure the % of Diploma and non-Diploma students in the class. This is because the number of Diploma students may increase, but the % in the class may decrease. This could occur if the school is growing in size. I would recommend that this be the % of students in that class. Part c) is important because the IB learning diversity/special educational needs policy states that "difference and diversity are central in IB World Schools". . . "all students enrolled in IB programmes should receive meaningful and equitable access to the curriculum. One way this can be measured is by looking at the selection criteria for students wanting to take the Diploma programme. Another piece of data might be looking at the results of diagnostic data / GPA / externally assessed examination done in the year prior to entering the DP (e.g. IGCSE, National Exams) etc. **Response 3:** The question elicits baseline data pertaining to student entry requirements, if any, for eligibility in attempting the IBDP and student numbers of those pursuing the IBDP in relation to same-age students not enrolling in the IBDP this information will not provide data to inform understanding of how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme.	Feedback and Suggestions: If there are students taking the DP (regardless of how many) then it seems obvious that the school has put in place structures to ensure its implementation. These numbers can also tell you the value placed on the DP by the school. I think that the wording "The school's leadership and administrative structure ensure the implementation of the Diploma Programme" needs to be changed maybe to "The school's leadership and administrative structure promote the value of the Diploma Programme" This way the schools leadership and administration has to reflect on how they promote the value of the Diploma.
Original SSQ Question (respondents were asked to view this item holistically): **3. Governance** d. **Briefly describe the governance structure at the school and highlight any changes that have been made to it during the period under review.**	

e. **Describe how the governing body (or the educational authorities) is kept informed about the implementation of the Diploma Programme.**

3 out of 5 responders rated this question negatively.

Response 1: Other than at the time of authorization, it is my experience that the governing body has little to do with the implementation of the Diploma Programme on a day to day basis since governors are responsible for governance. The only way they would get information would be from parents (who elect them) or if the senior administrative team makes a presentation about the DP Programme. I am not sure if this happens regularly or systematically in schools. **Response 2:** Any response to this item will provide IBO with information about the administrative structure at the school, but a response will not necessarily include much information concerning the effectiveness of the implementation of the IB program at the school. To make responses to this item more useful, IBO should engage in some sort of live discussion or interview. **Response 3**: The question elicits data pertaining to governance structures, recent changes to that structure and how the governing body is kept informed about the IBDP. Gathering this information will not provide data to inform understanding of how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme.	Feedback and Suggestions: To be of value this question needs to be answered by the governing body and be supported with evidence. How are they kept informed about the implementation of the programme and what is the nature of this information.

Original SSQ Question (respondents were asked to view this item holistically): **4. Pedagogical leadership**

A Describe any changes in the structure and responsibilities of the pedagogical leadership team in charge of the implementation of the Diploma Programme that have occurred during the period under review and why they were implemented.

b. If the Diploma Programme coordinator has other responsibilities besides the Diploma Programme coordination, indicate:

i. additional responsibilities

ii. percentage of his/her weekly schedule that is devoted to complying with his/her IB responsibilities as coordinator. (Indicate the whole weekly schedule of the coordinator at school, for example Mondays to Fridays from 9 am to 3.30 pm.)

c. If the school offers online Diploma Programme courses, describe the role of the site-based coordinator. Indicate what other responsibilities he/she has at the school.

3 out of 5 responders rated this question negatively.

Response 1: These items do not require enough information about the pedagogical structure of the school, nor do they allow the team to insert details to support any statements made. Again, IBO needs to conduct interviews with	Feedback and Suggestions:

member(s) of the team in order to determine more accurately how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme**.** **Response 2:** Unless the DP coordinator is the sole pedagogical leader, the item framed as it is now will not be able to capture the leadership role other teachers or teacher leaders have played in the implementation of the IB program in terms of pedagogical leadership. Nowadays we actually see more team leadership in all aspects of school life. Therefore, an open-ended component asking detailed questions about who are involved and what they have done to contribute to the success of DP will help to capture the significant contribution of all member in the leadership team. **Response 3:** The focus of the multiple part question is on current leadership structures and their respective responsibilities, not on the effectiveness of those structures/ roles in implementing the IBDP- without this data ascertaining how well the school's leadership and administrative structure ensure the implementation of the Diploma Programme is not possible.	I agree with responses 1, 2 and 3.
Original SSQ Question (respondents were asked to view this item holistically): **5. Policies. Describe the process of revising the language, assessment, academic honesty and special educational needs policies at the school, including who was involved. Indicate when they were last revised.** **a. Language policy** **b. Assessment policy** **c. Academic honesty policy** **d. Special educational needs policy** 3 out of 5 responders rated this question negatively.	
Response 1: This item does not specify clearly that the policies were supposed to be revised solely for the IB program at the school. Also, the item does not ask the team to provide copies of the actual policies. Instead, the items specify only a description of the process through which the policies were revised. The instructions need to be rewritten to eliminate this ambiguity so that schools provide the information required at the time the self-study is completed and submitted to IBO for review. **Response 2:** Just because there is a policy it doesn't mean that it is being implemented. Policies should be translated into practice, so my recommendation for revision would be to ask for evidence of these practices to see how they tie directly to the policy. **Response 3**: The focus of the multiple part question is on processes used to produce and revise policy documents not on the effectiveness of the leadership and administrative structure that may or may not be behind those processes. Again the question posed does not provide data that will allow determination of how well the school's leadership and administrative structure ensure the implementation of the Diploma	Feedback and Suggestions: Regarding response 1. Schools are required to provide copies of these policies as part of the self-study documentation. These policies should reflect the IB philosophy and any revisions should keep this mind as well. A schools leadership team generally responsible for developing school wide

Programme.	policies (in collaboration with other stakeholders). This involvement is one way of checking that the leadership team are supporting the implementation of the DP programme. What it doesn't say though is the extent of their involvement. I agree with response 3 that a policy does not provide information on how well the schools leadership are supporting the implementation in practice. Policies that are regularly reviewed show evidence that a school is committed to constant improvement. A policy review that happens only during an official 5-year review cycle in my opinion demonstrates more 'hoop jumping'. A policy is one way a school communicates what it does and why and so it can be used to check that there is alignment between the school and IB philosophies.
Standard B2: Resources and Support – The school's resources and support structures ensure the implementation of the Diploma Programme. **For each item in this section, please consider the following:** Does the item provide information about the extent to which the school's resources and support structures ensure the implementation of the Diploma Programme?	
Original SSQ Question (respondents were asked to view this item holistically):	

2. Teachers and other staff who are involved in the implementation of the Diploma Programme

Update the following information:

Number of full-time teachers who are responsible for Diploma Programme courses		
Number of part-time teachers who are responsible for Diploma Programme courses		
Maximum Diploma Programme class size		**students**

Describe the turnover of the staff involved in the implementation of the Diploma Programme in the period under review and how the school addressed any challenges in this area.

3 out of 5 responders rated this question negatively.

Response 1: IBO does not specify criteria regarding the successful implementation of the Diploma Programme. When a school becomes a "world school," no specific numbers/percentages are designated in the letter authorizing the institution to participate in the IB program. This item elicits numbers without offering direction. Again, IBO should conduct interviews with the school to determine whether it adequately/appropriately supports the implementation of the Diploma Programme. **Response 2:** This item gives no idea whether the school has sufficient resources to run the programme, or if it has sufficient resources but is choosing not to spend it that way. **Response 3:** The question elicits baseline data pertaining to teacher numbers for part time, full time and turnover rates this information will not provide data to inform understanding of how well the school's resources and support structures ensure the implementation of the Diploma Programme.	Feedback and Suggestions: I agree with responses 1, 2 and 3. Moreover, in my experience the high turnover of teachers and administrators (the support structure of the DP) does affect student and parent confidence in the programme. It would be worthwhile for the school to take the time to reflect on turnover to see if it actually has any perceived impact on the number of students taking the programme.

Original SSQ Question (respondents were asked to view this item holistically):

3. Collaborative planning and reflection

Identify the types and objectives of meetings that support the Diploma Programme implementation. Identify participants (for example, Diploma Programme subject teachers per subject group, all Diploma Programme subject and TOK teachers and CAS coordinators, Diploma Programme leadership team) and frequency. Use the table below.

Name of meeting	Who attends	Frequency of meeting	Objectives

3 out of 5 responders rated this question negatively.

Response 1: Again, this item elicits general information with no IBO direction or objectives clearly stated or offered. IBO needs to conduct interviews so that specific information might be collected from the school undergoing the self-study.
Response 2: The question elicits baseline data pertaining to meeting types and meeting objectives. This information will not provide data to inform understanding of how well the school's resources and support structures ensure the implementation of the Diploma Programme.
Response 3: To some extent. Just because there are meeting time schedules it does not mean that quality time is put aside during these meetings for IB teachers to be engaged in collaborative planning. Schools are busy places and meetings can be easily filled up with other school matters.
It would be better for the school to provide evidence, for example meeting minutes, to show that collaborative planning is regular and systematized and maybe examples of teachers schedules to show that they are available for collaborative planning on certain periods.

Feedback and Suggestions:

This chart does give some indication of the different kinds of groups that meet. An important part of the DP philosophy is the core (TOK, CAS and EE). The core is meant to inform and be informed by the 6 academic disciplines. There should be cross-disciplinary integration. A quick evaluation of the types of meetings will help check to see if this is acknowledged.

	However, it is important not to assume that formal meetings provide the only evidence of cross-disciplinary integration. Good work / collaboration also happens informally between teachers (this I believe is typically more frequent and often more valuable), so it would be important to capture these kinds of meetings as well.
Original SSQ Question : **4.Administration of exams** **Describe where the school stores examination papers and examination stationery in each examination session and who has access to these.** 2 out of 5 responders rated this question negatively.	
Response 1: The question asks for basic information on storage and access to that storage area. This information will not provide data to inform understanding of how well the school's resources and support structures ensure the implementation of the Diploma Programme. **Response 2:** This item is, once again, too general. Whether or not the school can secure the exam materials has little to do with whether the school implements the Diploma Programme in accordance with IB's standards and requirements.	Feedback and Suggestions: I disagree with responses 1 and 2. The IB has very specific mandatory requirements for the storage of examination papers, and so it is important that the school has the resources (storage facility) and the structures (personal who have access to the papers) to be able to support secure storage.

Original SSQ Question (respondents were asked to view this item holistically):

5. Teaching time

Number of weeks of instruction in the school year				
Number of instructional periods students receive in a week				
Length (in minutes) of each instructional period				
During the period under review, did the school make any adjustments in the student's weekly schedule to ensure that the recommended teaching hours for standard and higher level subjects and TOK are included and allow for concurrency of learning?	**Yes**		**No**	

If the answer is yes, explain the changes that were implemented.

2 out of 5 responders rated this question negatively.

Response 1: This item will let the reader determine whether the school schedule allows for HL subjects to be taught in 240 hours. SL subjects in 160 hours. However, school schedules typically experience lots of interruptions, so this question does not give a real indication of the actual number of hours of face-to-face instruction of the two years.This item also assumes that instruction is only face-to-face seat time. It does not include learning that takes place outside of the regular schedule (online components for example). **Response 2:** The question elicits baseline data pertaining to instructional teacher time and the structure of the school timetable. This information will not provide data to inform understanding of how well the school's resources and support structures ensure the implementation of the Diploma Programme.	Feedback and Suggestions: I agree with response 1.

Standard C4: Assessment- Assessment at the school reflects IB assessment philosophy

For each item in this section, please consider the following: Does the item provide information about the extent to which assessment at the school reflects IB assessment philosophy?

Original SSQ Question :

1. **Include a brief analysis of the examination results within the period under review and any action taken as a consequence (include Diploma Programme subjects, TOK and extended essays).**

3 out of 5 responders rated this question negatively.

Response 1: The question elicits data pertaining to the analysis of examination of results. This information will not provide data to inform understanding of how much assessment at the school reflects IB assessment philosophy. **Response 2:** I am not sure what an analysis of examination results will really tell us about assessment practices and approaches to teaching and learning. Once, again it would be better for the school to provide evidence of their assessment policy in practice. **Response 3:** I honestly think this is the most important part of the self-study process – examining student works. Therefore a brief analysis is not sufficient to tell the whole story. A more logical requirement is to ask the teachers to carefully and systematically examine student works or exam results that reflect student learning in the 10 aspects in IB learner profile.	Feedback and Suggestions: I agree with responses 1,2 and 3. Exam results will not provide a full picture of a schools assessment policy in practice. It sort of assumes that if a schools educational and pedagogical values related to assessment are aligned with that of the IB then this will be reflected in the exam results. In my experience IB teachers assessment practices follow IB philosophy and not the school philosophy.

Congratulations, you have completed the Round 2 Response Sheet!

Please return this response sheet electronically to mrschuster@hotmail.com

Thank You for your time and effort! Your participation in this research is greatly appreciated!

	Participant 1	Participant 2	Participant 3	Participant 4	Partici 5
A2	N	P	P	N	P
A3	N	N	P	N	P
A5	N	P	N	N	P
A6	N	P	N	N	N
A7a	N	N	N	N	N
A7b	N	N	N	N	N
A8a	N	N	N	N	N
A8b	N	P	N	N	P
A8c	N	P	N	N	P
A8d	N	P	N	N	P
B1.2	N	N	N	N	P
B1.3	N	N	N	N	N
B1.4	N	N	N	N	N
B1.5	N	N	N	N	N
B2.2	N	N	P	N	N
B2.3	N	N	N	N	P
B2.4	N	P	P	N	P
B2.5	N	N	N	N	P
C4	N	N	P	P	N

Participant Biographies: The following Delphi participant biographies alphabetical order and intentionally do not match the above table.

Linda Ensor – Linda is the IBDP Coordinator of Shore Regional High S West Long Branch, NJ. She was part of the original authorization team f at Shore Regional and was on the leadership team for their first and only date.

Tiedan Huang – Tiedan is a visiting Assistant Professor at Fordham Un Institute for Schools and Society, and also works at Temple University. S quantitative scholar, statistician and mixed methods researcher.

Carol Jordan – Carol currently works at the American School of Warsa teaches IB Chemistry. She has experience as the IB Coordinator at her p school, Shanghai American School, Pudong Campus and has extensive e with the SSQ. She has served as an IB Authorization Team member and reader.

Lisa Kensler – Lisa is an Associate Professor at Auburn University in th Educational Leadership department. She is skilled in program evaluation instrument design.

Mark Robertson-Jones – Mark is the IBDP Coordinator at Shekou Inte School in Shenzen, China. He serves as a full time high school administ also served as an IB coordinator at the American International School of has been through multiple self-studies using the SSQ.

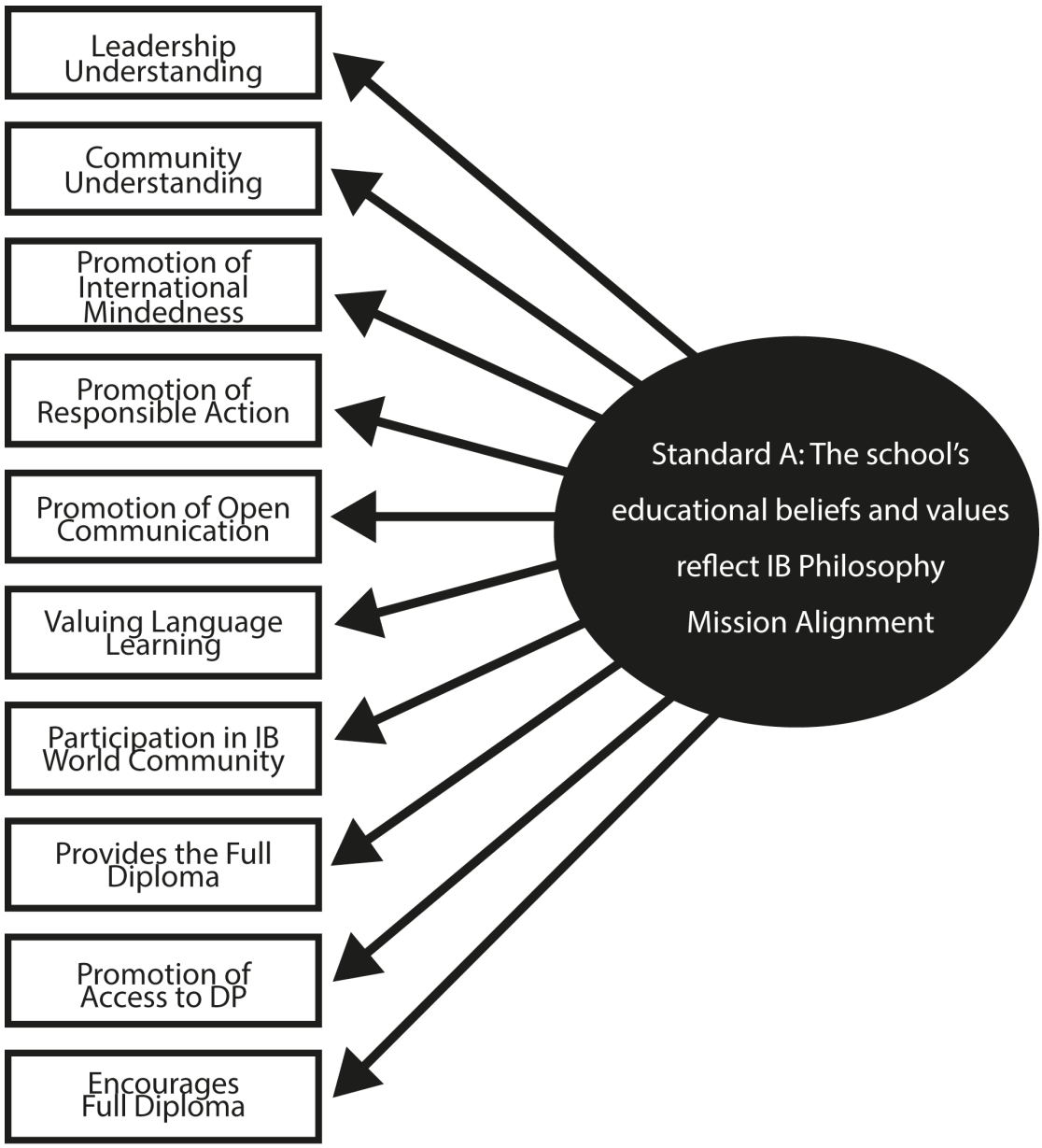


Figure I 1. Standard A.

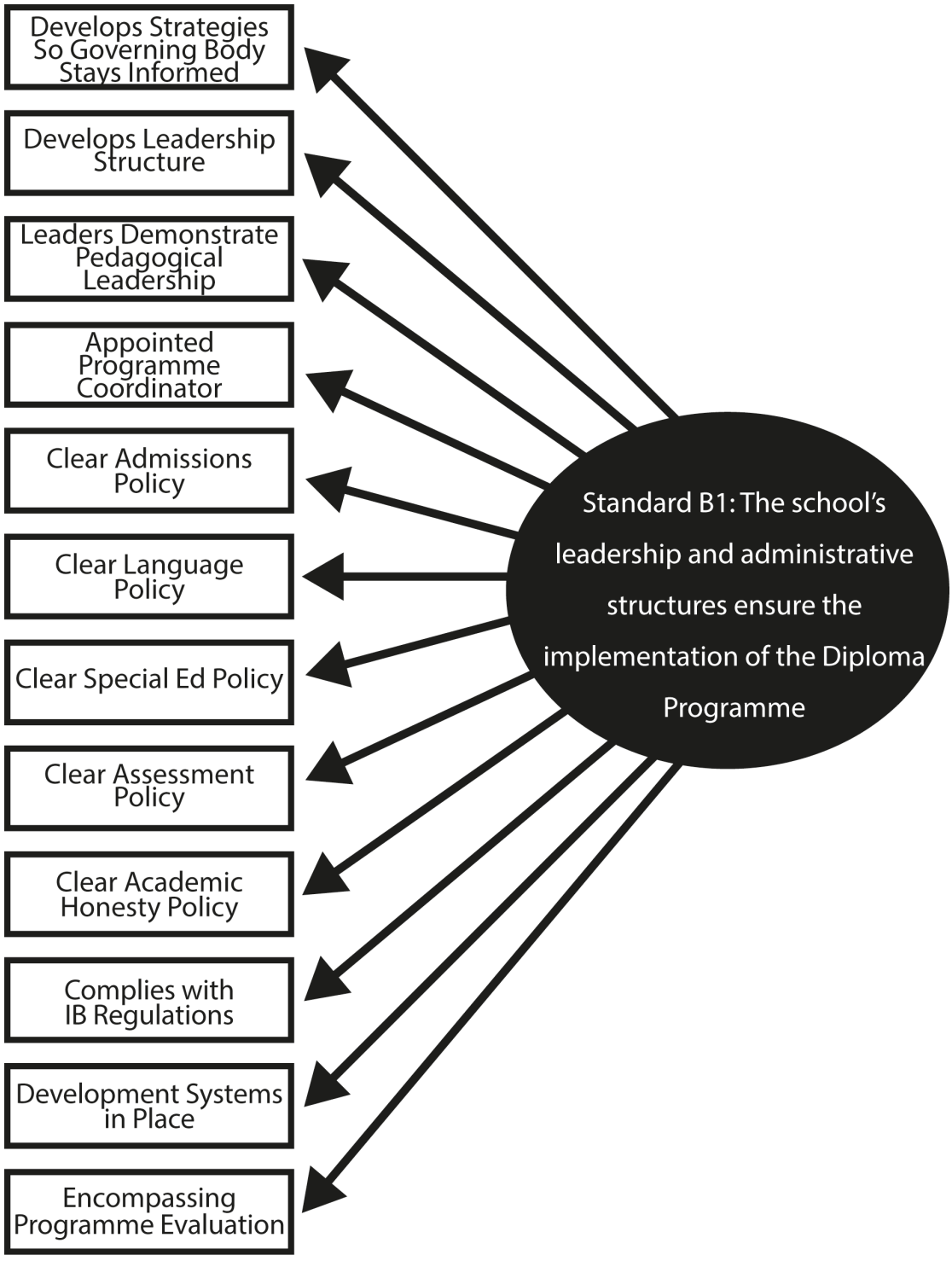


Figure I 2. Standard B1.

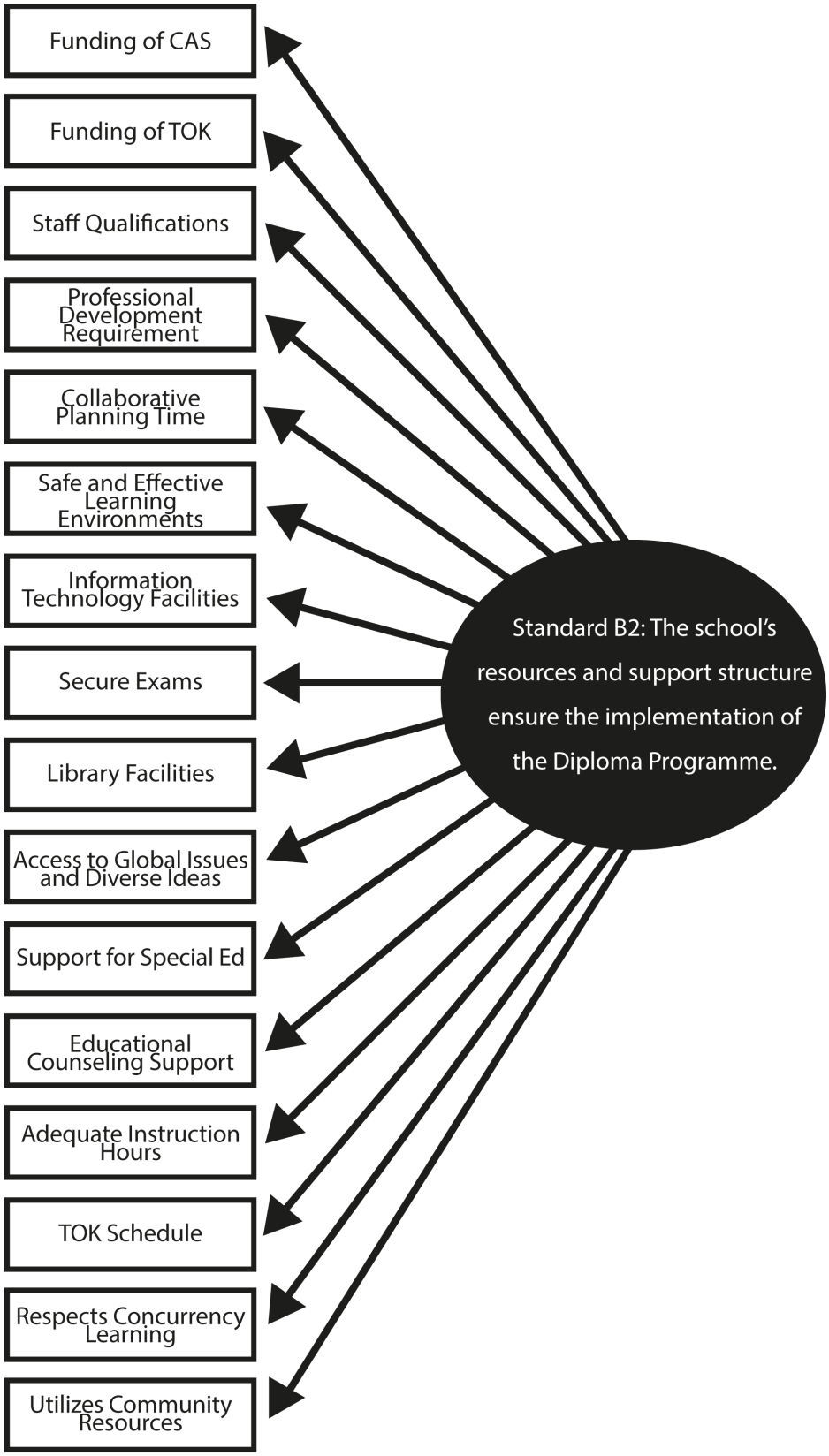


Figure I 3. Standard B2.

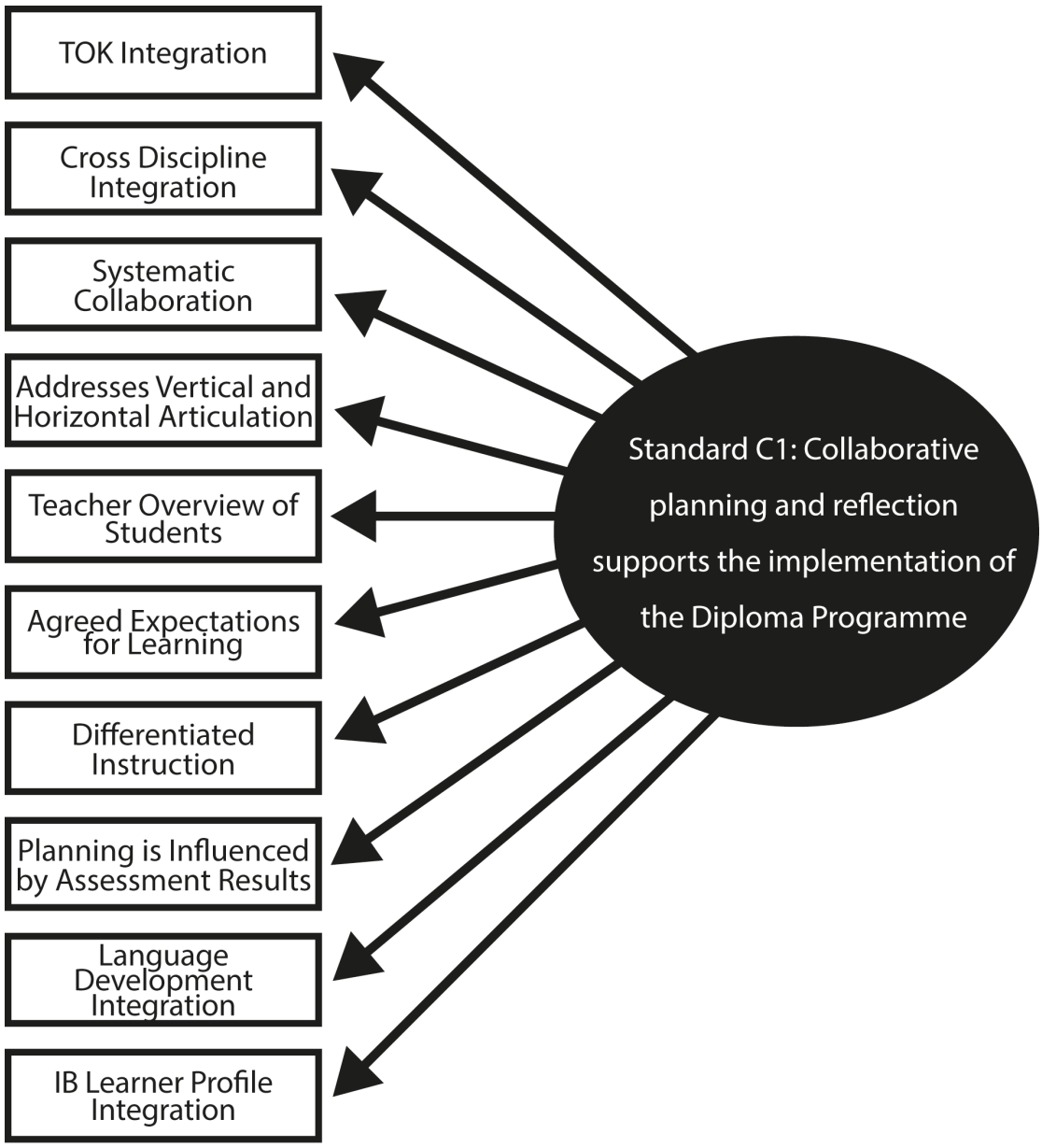


Figure I 4. Standard C1.

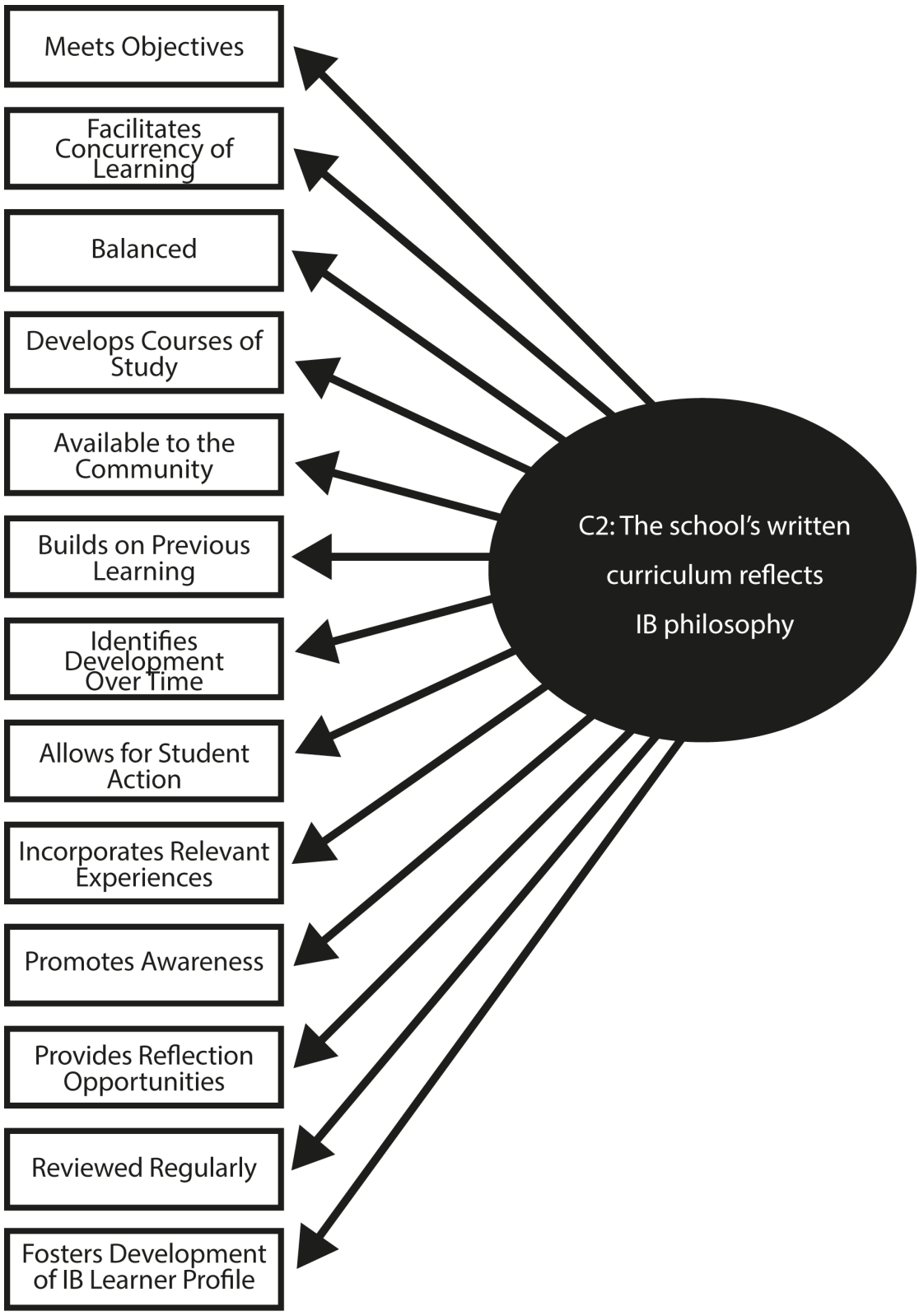


Figure I 5. Standard C2.

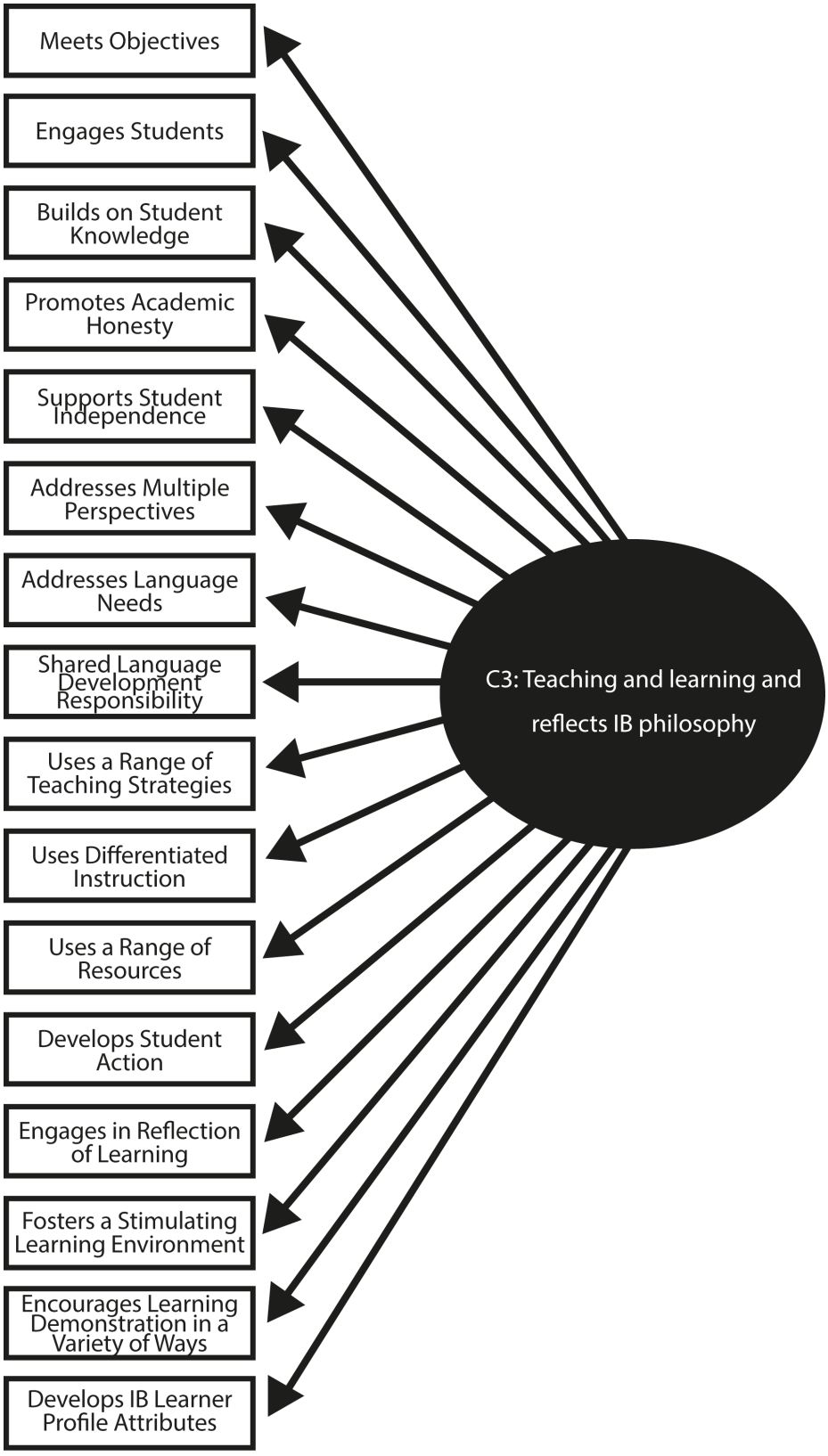


Figure I 6. Standard C3.

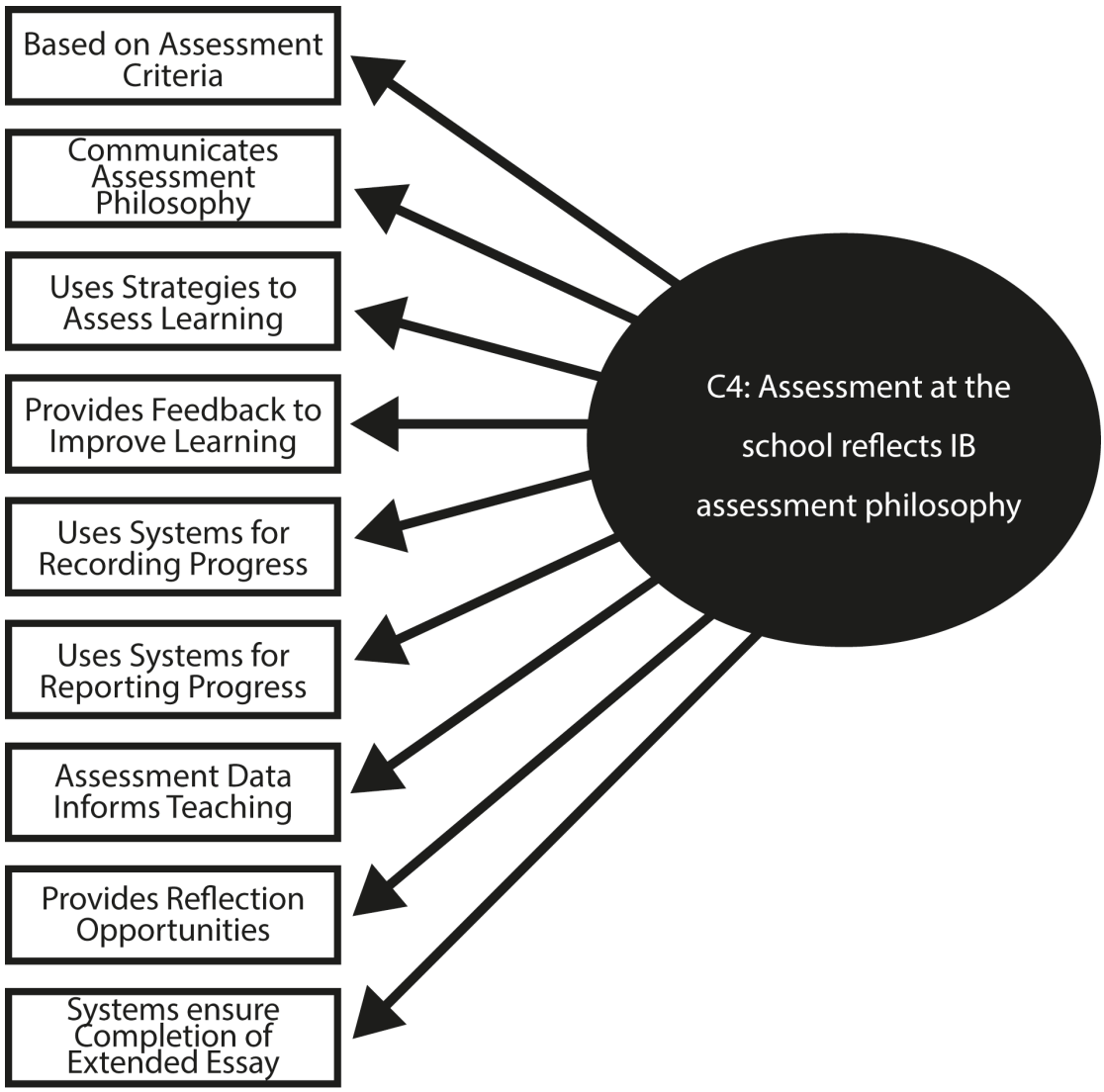


Figure I 7. Standard C4.

Appendix J: Confirmatory Factor Analysis Journal Log

Standard A = I picked the Varimax solution with the High Miss variable excluded.

Standard B1 = I picked the Oblimin solution with the High Miss variable excluded.

Standard B2 = I picked the solution with the High Miss variable excluded and the Varimax rotation.

Standard C1 = I picked the unrotated solution with the High Miss variables excluded because it explains a greater percent of the variance than the unrotated solution with the High Miss included.

Standard C2 = I picked the solution with the High Miss variable excluded and the Oblimin rotation.

Standard C3 = I picked the solution with the High Miss variable excluded and the Oblimin rotation.

Standard C4 = I picked the solution with the High Miss variable excluded and the Oblimin rotation.

Table J 1

Comparison of Standards With Variance Explained

Standard *n*	High Miss	Extraction	Rotation	KMO	Variance explained (%)	Component table
A *n* = 221	excluded	Principal Components	None	.80	53	3 components
A *n* = 221	excluded	Principal Components	Varimax Orthogonal	.80	53	3 distinct sub components. Table J2
A *n* = 221	excluded	Principal Components	Oblimin Oblique	.80	53	A6 loads on 2 subcomponents. Table J3
A *n* = 223	Included, replaced missing with means	Principal Components	None	.81	52	3 components
A *n* = 223	Included, replaced missing with means	Principal Components	Varimax Orthogonal	.81	52	A2 Loads on 2 components, A9 did not load on any component. Table J4
A *n* = 223	Included, replaced missing with means	Principal Components	Oblimin Oblique	.82	52	A9a did not load on any component. See Table J5.

Standard *n*	High Miss	Extraction	Rotation	KMO	Variance explained (%)	Component table
B1 *n* = 213	Excluded	Principal Components	None	.88	53	2 components
B1 *n* = 213	Excluded	Principal Components	Varimax Orthogonal	.88	53	There are 4 items that load on both components. See Table J6.
B1 *n* = 213	Excluded	Principal Components	Oblimin Oblique	.88	53	2 distinct sub components. Table J7
B1 *n* = 220	Included, replaced missing with means	Principal Components	None	.89	50	2 components
B1 *n* = 220	Included, replaced missing with means	Principal Components	Varimax Orthogonal	.89	50	See Table J8. This solution is unclear because 3 variables load on both components.
B1 *n* = 220	Included, replaced missing with means	Principal Components	Oblimin Oblique	.89	50	See Table J9. 2 distinct sub components
B2 *n* = 215	Excluded	Principal Components	None	.85	62	5 components

Standard *n*	High Miss	Extraction	Rotation	KMO	Variance explained (%)	Component table
B2 *n* = 215	Excluded	Principal Components	Varimax Orthogonal	.85	62	Table J10 shows 5 components with a simple structure. In other words, all items load on one and only one component. With the exception of component 3, the meaning of the components is not obvious.
B2 *n* = 215	Excluded	Principal Components	Oblimin Oblique	.85	62	Table J14 shows 5 components with a fairly simple structure, however, it is not an ideal solution because one item does not load on any component and one loads on two components.
B2 *n* = 223	Included, replaced missing with means	Principal Components	None	.84	64	6 Component structure
B2 *n* = 223	Included, replaced missing with means	Principal Components	Varimax Orthogonal	.84	64	Table J12 shows a complex structure. The components are not readily interpretable.
B2 *n* = 223	Included, replaced missing with means	Principal Components	Oblimin Oblique	.84	64	Table J13 shows a complex structure.
C1	Excluded	Principal	None	.92	57	All items loaded on a single component. Thus,

Standard *n*	High Miss	Extraction	Rotation	KMO	Variance explained (%)	Component table
n = 219		Components				this component comprises a unidimensional construct. Because only one component was extracted, the solution cannot be rotated. The item loadings are given on Table J18.
C1 *n* = 222. There is one school for which the data entry person could not read the responses to any of the curriculum items. So this brought the *n* down to 222.	Included, replaced missing with means	Principal Components	None	.91	54	All items loaded on a single component. Thus, this component comprises a unidimensional construct. Because only one component was extracted, the solution cannot be rotated. The item loadings are given on Table J19.
C2 *n* = 213	Excluded	Principal Components	None	.90	54	2 components

Standard *n*	High Miss	Extraction	Rotation	KMO	Variance explained (%)	Component table
C2 *n* = 213	Excluded	Principal Components	Varimax Orthogonal	.90	54	See Table J20. The component structure is complex and unclear with several items loading on both components.
C2 *n* = 213	Excluded	Principal Components	Oblimin Oblique	.90	54	See Table J21. The component structure is clear and simple. I'll let you interpret and name the components. Item C29 did not load on either component.
C2 *n* = 222	Included, replaced missing with means	Principal Components	None	.90	58	3 components
C2 *n* = 222	Included, replaced missing with means	Principal Components	Varimax Orthogonal	.90	58	See Table J22. Solution too complex, not readily interpretable.
C2 *n* = 222	Included, replaced missing with means	Principal Components	Oblimin Oblique	.90	58	See Table J23. Solution overly complex. It doesn't make sense that items C21a, b, c, d would not be in the same component.
C3 *n* = 214	Excluded	Principal Components	None	.92	57	3 components
C3 *n* = 214	Excluded	Principal Components	Varimax Orthogonal	.92	57	Table J24. Too complex.

Standard *n*	High Miss	Extraction	Rotation	KMO	Variance explained (%)	Component table
C3 *n* = 214	Excluded	Principal Components	Oblimin Oblique	.92	57	Table J25. Simple structure is pretty good, but some items did not load on any component. Table J26. Simple structure is good.
C3 *n* = 222	Included, replaced missing with means	Principal Components	None	.91	54	3 Components
C3 *n* = 222	Included, replaced missing with means	Principal Components	Varimax Orthogonal	.91	54	Table J23. Structure too complex.
C3 *n* = 222	Included, replaced missing with means	Principal Components	Oblimin Oblique	.91	54	Table J24. Simpler structure than varimax, but one item double loads, and one item doesn't load at all.
C4 *n* = 216	Excluded	Principal Components	None	.85	60	Two components extracted
C4 *n* = 216	Excluded	Principal Components	Varimax Orthogonal	.85	60	Table J25. More complex than oblimin.
C4 *n* = 216	Excluded	Principal Components	Oblimin Oblique	.85	60	Table J26. Simpler structure, but one item double loads.

Table J 2

Item Loadings[a]

	Component		
	1	2	3
A4	.703		
A3	.672		
A8	.668		
A2	.656		
A1	.473		
A6		.754	
A5		.718	
A7		.572	
A9b			.775
A9c			.688
A9a			.577

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table J 3

Item Loadings

	Component		
	1	2	3
A4	.751		
A2	.751		
A3	.745		
A8	.554		
A1	.550		
A6	.573	-.697	
A5		-.689	
A7		-.543	
A9b			.789
A9c			.742
A9a			.575

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Table J 4

Item Loadings[a]

	Component		
	1	2	3
A6	.770		
A5	.755		
A7	.594		
A8		.712	
A4		.661	
A3		.651	
A2	.409	.626	
A1		.445	
A9a			
A9b			.772
A9			.726
A9c			.665

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table J 5

Item Loadings[a]

	Component		
	1	2	3
A8	.736		
A4	.706		
A3	.664		
A2	.632		
A1	.451		
A9a			
A9b		.797	
A9		.737	
A9c		.668	
A5			-.749
A6			-.706
A7			-.573

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 29 iterations.

Table J 6

Item Loadings[a]

	Component	
	1	2
B15d	.808	
B15e	.757	
B15b	.694	
B15c	.684	
B15a	.536	.415
B11	.502	.465
B14		.746
B12		.735
B17		.701
B13	.445	.652
B16	.421	.527
B15f		.490

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table J 7

Item Loadings[a]

	Component	
	1	2
B15d	.855	
B15e	.804	
B15c	.713	
B15b	.707	
B15a	.477	
B11	.423	
B14		.821
B17		.745
B12		.733
B13		.590
B16		.459
B15f		.438

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 10 iterations.

Table J 8

Item Loadings[a]

	Component	
	1	2
B15d	.786	
B15e	.755	
B15c	.667	
B15b	.653	
B15a	.540	.417
B15	.534	
B12		.744
B14		.732
B17		.685
B13	.409	.677
B16		.575
B11	.468	.497
B15f		.495

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table J 9

Item Loadings[a]

	Component	
	1	2
B15d	.821	
B15e	.798	
B15c	.685	
B15b	.645	
B15	.572	
B15a	.480	
B14		.810
B12		.752
B17		.733
B13		.631
B16		.535
B15f		.454
B11		.409

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 9 iterations.

Table J 10

Item Loadings[a]

	Component				
	1	2	3	4	5
B26a	.711				
B27	.708				
B24	.626				
B211	.619				
B28	.615				
B25a	.432				
B21a		.769			
B21b		.744			
B25b		.584			
B212		.477			
B210b			.783		
B210a			.741		
B210c			.601		
B25c				.851	
B23a				.641	
B22					.826
B29a					.592

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 17 iterations.

Table J 11

Item Loadings[a]

	Component				
	1	2	3	4	5
B27	.763				
B26a	.739				
B211	.693				
B24	.533				
B28	.514				
B25a	.420				
B212					
B210b		.808			
B210a		.768			
B210c		.588			
B25c			.879		
B23a			.650		
B21b				-.704	
B21a				-.688	
B25b	.404			-.448	
B22					-.852
B29a					-.568

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 27 iterations.

Table J 12

Item Loadings[a]

	Component					
	1	2	3	4	5	6
B26a	.755					
B27	.673					
B28	.642					
B26	.621		.560			
B24	.605					
B211	.547					
B29a	.511				.426	
B25a	.488					
B21b		.754				
B21a		.715				
B212		.528				
B25b	.439	.503				
B25			.693			
B29			.646			
B21		.516	.608			
B210a				.740		
B210b				.699		
B210			.545	.697		
B210c				.577		
B22					.736	
B23a					.676	
B23			.555		.584	
B25c						.874

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 17 iterations.

Table J 13

Item Loadings[a]

	Component					
	1	2	3	4	5	6
B26a	.734					
B27	.673					
B28	.613					
B24	.607					
B26	.575		-.549			
B211	.539					
B25a	.409					
B29a	.404					
B210a		.748				
B210b		.698				
B210		.692	-.530			
B210c		.540				
B25			-.689			
B29			-.622			
B21			-.567	-.464		
B21b				-.748		
B21a				-.681		
B212				-.448		
B25b				-.425		
B25c					.907	
B22						.764
B23a						.655
B23			-.521			.541

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 33 iterations.

Table J 14

Item Loadings[a]

	Component
	1
C13	.803
C12	.797
C17	.777
C11b	.768
C19	.765
C15	.763
C16	.754
C18	.731
C14	.699
C11a	.664

Note. Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Table J 15

Item Loadings[a]

	Component
	1
C12	.792
C13	.792
C17	.774
C11b	.765
C19	.758
C15	.758
C16	.740
C18	.716
C14	.707
C11a	.668
C11	.605

Note. Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Table J 16

Item Loadings[a]

	Component	
	1	2
C27	.809	
C28	.761	
C211	.688	
C26	.654	
C25	.648	
C24	.594	.456
C21c		.759
C21a		.692
C23	.416	.635
C21b		.606
C210	.420	.601
C21d		.597
C22	.431	.563
C29	.450	.460

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table J 17

Item Loadings[a]

	Component	
	1	2
C21c	.868	
C21a	.682	
C21d	.614	
C21b	.604	
C23	.595	
C210	.555	
C22	.509	
C29		
C27		-.885
C28		-.798
C211		-.668
C26		-.603
C25		-.598
C24		-.514

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 18 iterations.

Table J 18

Item Loadings[a]

	Component		
	1	2	3
C27	.770		
C28	.739		
C211	.676	.464	
C26	.617		
C25	.595		
C24	.571	.480	
C21c		.736	
C21		.659	
C21a		.593	.441
C23		.585	
C210		.583	
C21d			.825
C29			.642
C22			.563
C21b			.543

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Table J 19

Pattern Matrix[a]

	Component		
	1	2	3
C27	.823		
C28	.771		
C211	.658		
C26	.582		
C25	.558		
C24	.514		
C21c		.796	
C21		.684	
C21a		.553	
C23		.535	
C210		.533	
C21d			.856
C29			.602
C22			.491
C21b			.483

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 14 iterations.

Table J 20

Rotated Component Matrix[a]

	Component		
	1	2	3
C34	.715		
C33	.705		
C31a	.693		
C35	.636		
C32	.598	.453	
C311		.809	
C315		.695	
C312		.587	
C313	.465	.525	
C39	.439	.479	
C314	.416	.474	
C37			.815
C38			.768
C316			.538
C36	.474		.476
C310			.449

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Table J 21

Pattern Matrix[a]

	Component		
	1	2	3
C37	.871		
C38	.809		
C316	.493		
C310	.400		
C311		-.862	
C315		-.651	
C312		-.543	
C313			
C314			
C39			
C34			-.788
C31a			-.761
C33			-.711
C35			-.654
C32			-.556
C36			-.405

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 21 iterations.

Table J 22

Factor Loadings with minimum Lowered to .366[a]

	Component		
	1	2	3
C37	.871		
C38	.809		
C316	.493		
C310	.400		
C311		-.862	
C315		-.651	
C312		-.543	
C313		-.398	
C314		-.376	
C39			
C34			-.788
C31a			-.761
C33			-.711
C35			-.654
C32			-.556
C36	.395		-.405

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 21 iterations.

Table J 23

Item Loadings[a]

	Component		
	1	2	3
C311	.761		
C315	.713		
C313	.620		
C312	.609		
C32	.556	.528	
C314	.542		
C39	.509	.438	
C310			
C31a		.721	
C33		.679	
C34		.637	
C31		.561	
C35		.517	
C37			.807
C38			.751
C316	.429		.516
C36		.423	.487

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table J 24

Pattern Matrix[a]

	Component		
	1	2	3
C31a	.785		
C33	.681		
C34	.673		
C31	.592		
C35	.498		
C32	.481	-.433	
C311		-.806	
C315		-.675	
C312		-.571	
C313		-.519	
C314		-.462	
C39			
C37			-.845
C38			-.779
C316			-.478
C36			-.422
C310			

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 18 iterations.

Table J 25

Item Loadings[a]

	Component	
	1	2
C45	.912	
C46	.904	
C42	.574	
C47	.558	.461
C49	.511	
C41a		.831
C43		.727
C48		.687
C44	.529	.577

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table J 26

Pattern Matrix[a]

	Component	
	1	2
C45	.980	
C46	.972	
C42	.556	
C47	.494	
C49	.485	
C41a		.895
C43		.727
C48		.679
C44	.430	.476

Note. Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 8 iterations.

Table J 27

Cronbach's Alpha Coefficients for Likert Data for Each IB Standard

Standard	Cronbach's alpha coefficient
A	.76
B	.93
B1	.88
B2	.90
C	.96
C1	.92
C2	.92
C3	.90
C4	.85

Brief Biography

Christopher Schuster is a secondary school administrator with over 12 years of education experience. He received his B.A. in English from the University of Montana and a M.Ed. in Educational Leadership from Lehigh University. He was a high school English teacher for 10 years and worked at schools in New Jersey, South Korea, and Shanghai, China. He was born and raised on the Jersey Shore. He currently resides in Shanghai, but spends his summers playing golf in Halifax, Nova Scotia, Canada with his beautiful wife, Carla Molloy.