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The International Baccalaureate (IB) Programme: An International Gateway to Higher Education and Beyond

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Abstract: The aim of this article is to present the International Baccalaureate (IB) Programme and briefly outline its core components, followed by a review of what authoritative reports identify as skills for the future, esteemed by universities and the job market. There is a striking match between these skills and IB outcomes; thus, DP graduates perform well in higher education and add to the reputation of those institutions. After a review of the literature, the authors found the IB Diploma Programme has been studied in many countries by both consultants and educational agencies, and also by a wide array of universities themselves; however, there are fewer qualitative studies concerning the degree to which IB graduates display attitudes, values, and behaviours in line with the IB Learner Profile. This is why the authors stress the claims made are supported by examples of significant research, noting that there is a dearth of qualitative longitudinal studies to sufficiently substantiate the affective domain claims that currently rely more on anecdotal evidence. The authors conclude by pointing out more research is needed in order to substantiate anecdotal evidence regarding future employment success for IB Diploma Programme graduates.

Keywords: International baccalaureate, international education, curriculum, internationalization, constructivism, critical thinking skills

Introduction

In Switzerland, during July 1971, Prince Louis of Battenberg, better known as Lord Mountbatten, strode down the steps of the International School of Geneva's Greek Theatre to award the first official International Baccalaureate (IB) diplomas to 13 graduates. At the same time another 41 IB graduate pioneers from schools in France, Iran, Uruguay, and the United States would join those from Geneva in leading the way toward representing the quality and ethos of future IB students across the world (International Baccalaureate Organization [IBO]; n.d.).

Today, the DP is among the most rigorous international secondary school qualifications—one of the very few that is readily recognised and accepted by institutions of higher education around the globe. The recent examination sessions in northern and southern hemispheres claimed more than 114,000 DP candidates who are being welcomed into the finest universities across the world—a sharp contrast to the trials of the late 1960s when the IB founders began

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negotiation with Oxford, Harvard, and the Sorbonne to accept the new credential. Over the last 45 years, the DP has proven to be a passport to higher education but it also has the potential to be so much more.

This article describes the origin and evolution of the IB, and how it develops students for life-long learning for a world that will seem an almost futuristic society from the post-war era in which the IB was born.

History

In 1950, the teachers at the International School of Geneva expressed a vision of international education by which a child should gain “an understanding of his past as a common heritage to which all men irrespective of nation, race, or creed have contributed and which all men should share” (International School of Geneva [ISG], 1950). Further, they opined, an international education:

should give him an understanding of his present world as a world in which peoples are interdependent and in which cooperation is a necessity. In such an education emphasis should be laid in a basic attitude of respect for all human beings as persons, understanding of those things which unite us and an appreciation of the positive values of those things which may seem to divide us, with the objective of thinking free from fear or prejudice. (ISG, 1950)

This was a noble vision of education prompted in the aftermath of the horrors of the Second World War: one that encouraged and nurtured mutual respect and peace between nations, one that encompassed the ability to express opinions openly, and one that recognised the need for interdependent action between nations to solve global issues and promote intercultural understanding.

In 1960, Bob Leach, the head of history at the International School of Geneva, was discussing the Second World War with his class of 25 students representing 20 different nationalities. A new student unpretentiously announced to the class that her country had won the war. Immediately other hands went up, with several students indicating that this was not what they were told in their respective countries; they were told that their country had won the war. Leach had realised for some time the need for a new pedagogy for teaching history—one that invited critical enquiry of historical sources and statements. In the wake of post-war sentiment and in accordance with developing thoughtful and collaborative young minds, Leach (1969) urged his students not to expect “conventional reassurance for [holding] closed opinions”, and to challenge accepted views, dissect and weigh issues “in whatever universal scales the teacher may find [...] useful”, be prepared to retreat from entrenched positions, and appreciate and analyze multiple perspectives (p. 208-09).

The need for curricula internationalization was neither unique to the subject of history nor for that matter to other fields enveloped in the humanities and arts. The origin of theorems and other concepts in the sciences and math were often considered with a strong national view in which notations and inventors could vary. Education for globally mobile children, such as those with parents in the diplomatic corps, needed to cater to both national and international perspectives.

In addition to envisioning an educational concept centred on the ambitious philosophy of global peace and understanding, educational leaders also understood the pragmatism in seeking a universal pedagogy for learning. The globally mobile students required an official qualification which would allow them to enter universities in their home countries or elsewhere so they would

not be disadvantaged by the constant movement common to children of parents employed by the United Nations and its agencies, embassies abroad, and multinational companies. The IB Diploma Programme sought to address this issue, beginning with a pilot programme in 1966, and predicated upon the germination of Leach's early idea. In addition to the International School of Geneva, the early adopters of the IB's DP were Atlantic College (Wales) and the United Nations International School (New York).

In summary, the *raison d'être* of the IB's Diploma Programme was pedagogical, idealistic, and utilitarian and respectively sought to:

- Develop critical thinking skills, holistic learning, life-long education, and affective education via community service;
- Foster international mindedness, an appreciation of multiple perspectives, promotion of intercultural understanding, and consideration of solutions to major global issues leading to world peace; and
- Offer a globally recognised university entrance qualification, thus facilitating student mobility across frontiers.

Influence by Early Visionaries

Between the 1930s and the 1960s, a number of progressive thinkers contributed to the groundswell of interest in international education, culminating in the development and growth of the IB's globally accepted qualification.

In the early 1960s, Desmond Cole-Baker, the head of the International School of Geneva, encouraged his teachers to set aside current syllabi and to contemplate what students with an international experience would need for the future. The explorative endeavour ignited the attention of eminent educators from various countries and raised awareness of the efforts towards a new type of educational experience—one that would foster respect for national heritage while concurrently promoting responsible world citizenship. The seeds of the IB philosophy were planted and awaiting further nurturing.

The educational philosophy of Kurt Hahn inspired many people. It was he who founded Atlantic College (Wales) in 1962, and the inclusion of mandatory community service as part of the programme is credited to his influence. Hahn, an eminent educator in the 1930s, had been head of the famous Salem School in Germany. He authored a letter to his community of students indicating that he would disown them if they embraced the Nazi philosophy, resulting in his necessary escape from Germany. Once safely in Scotland, he founded Gordonstoun School in 1934, a place where he could bring young people of many nationalities together and foster the qualities of compassion, probity, initiative, adventure, and a sense of service to others within a multicultural environment. Hahn later founded the character-building Outward Bound movement in 1941, the philosophy of which rested on what he called "four pillars": physical fitness, expeditions of challenge and adventure, self-reliance and self-discipline, and a sense of compassion through service (Outward Bound USA, 2007, p.27).

Alec Peterson, Head of the Department of Educational Studies at Oxford when Atlantic College opened its doors in 1962, contributed to the international curriculum that would be offered to the first cohort of students from around the world (Peterson, 2003). Peterson had written several papers showing his discontent with the "narrowness" of British A-Levels and enthusiastically joined the flurry of international education activity in Geneva in 1964. Peterson had worked with

Lord Mountbatten in Asia as Head of Psychological Warfare during the Second World War, but it was Atlantic College and the international curriculum work that brought them together again as a progressive and powerful force in the promotion of the IB and the UWCs. Peterson became the IB's first Director General, serving in that capacity from 1966 until 1977 at the same time Lord Mountbatten led the United World Collages movement (Peterson, 2003).

Atlantic College was the flagship of what is now a group of 12 United World Colleges (UWCs), all of which offer the IB Diploma Programme exclusively and embody a mission similar to those of the International School of Geneva and the IB. UWC students are typically on scholarship, having been selected by national committees for academic achievement and leadership potential. The UWC movement was initiated in 1967, with Lord Mountbatten as its first president. Mountbatten became a champion, not only of the UWCs, but also of the IB. His expansive network of relationships at the highest levels with royalty and government officials across the world facilitated early recognition of the IB by a number of ministries of education and university authorities. After Lord Mountbatten's assassination in 1979, Prince Charles, who attended Hahn's Gordonstoun School, became the UWC President, and has remained officially connected to the UWCs.

The first IB office, located in Geneva, was established initially as the International Schools Examination Syndicate (ISES) in 1964 and became officially registered as the International Baccalaureate Office in 1968. A regional IB office was opened in New York in 1975 under the governance of a newly created IB North American Board. One of its founding members and Harvard graduate, Dr. Harlan Hanson, was the Director of the Advanced Placement Programme (AP) of the College Entrance Examinations Board. Hanson was an admirer of the IB project and became a member from 1969 to 1977 of its worldwide Council of Foundation that met in Geneva. It is believed that Hanson provided some space for a few months within the College Board offices for the new IB North American entity until permanent accommodation could be found, believing strongly that there was room for both IB and AP in the US (Hill, 2006).

The establishment of the North American office led to rapid expansion in public schools in the United States (US), where the IB was seen initially as providing an international standard of academic rigour. Subsequently, the focus on international-mindedness embedded in the DP curriculum grew in importance and appeal, thus expanding the IB's community from internationally mobile students to a large following in US public schools, which is a pattern that continues. Today, 90% (1416 institutions) of all IB schools in the US are public and 56% of all IB schools around the globe are public schools, according to statistical information provided by the IB (M. Wilson, personal communication, September 23, 2014).

IB Diploma Programme: The Construct

All IB programmes are based on a constructivist understanding of how children learn. Constructivism is a theory of cognition, now widely used and accepted, that asserts that knowledge is not passively learned but actively built and refers to approaches that recognise the importance of engaging and challenging existing mental models in learners in order to improve understanding and performance. In the light of a constructivist approach to teaching and learning, IB programmes are designed to stimulate young people to be intellectually curious and equip them with the knowledge, conceptual understanding, skills, reflective practices, and attitudes needed to become autonomous lifelong learners.

One of the main challenges of excellent teaching is “to help students achieve genuine and sophisticated understanding that helps them function effectively and independently in an increasingly complex world” (IBO, 2008c). Furthermore:

central to teaching for understanding is the use of guiding or key questions. The act of framing these open or generative questions causes teachers to focus on the reasons why they are teaching that particular body of information and thus it helps them ensure that the knowledge and skills they are teaching are relevant and meaningful. (IBO, 2008c)

Among the many things that make the IB DP unique is its focus on three core components that go beyond content acquisition.

The first is an activity called the Extended Essay (EE), which allows students to investigate a topic of special interest and acquaints them with the independent research and writing skills expected at university (IBO, 2007a). In addition to promoting intellectual discovery and bold creativity, the EE “provides students with the opportunity to engage in personal research on a topic of their own choice, under the guidance of a supervisor” (IBO, 2007b). From 2013 the IB encourages all schools to undertake a *viva voce* with each student about his/her EE and to comment on this formally to the IB when submitting the student’s work. According to the IBO, “[i]n countries where interviews are required prior to acceptance for employment or for a place at university, the extended essay has proved to be a valuable stimulus for discussion” (“Diploma Programme curriculum”, n.d.), much like a personal portfolio.

The second core component of the DP is the Theory of Knowledge (TOK) course, which is “designed to develop a coherent approach to learning that transcends and unifies the academic areas and encourages appreciation of other cultural perspectives” (IBO, 2006). In the TOK course, students are asked to reflect on the implications of cultural shifts and global matters and to think critically about what they encounter, considering multiple perspectives (IBO, 2006). This course fosters not only sharing points of view about issues like the information economy and the digital revolution, but also listening as the students’ “understanding of knowledge as a human construction [is] shaped, enriched, and deepened” (IBO, 2006).

The third core component unique to the IB is called Creativity, Action, and Service (CAS), which, at the heart of the DP and in parallel with the academic courses, is comprised of activities in the arts, creative thinking, physical activity contributing to a healthy lifestyle, and a voluntary community service that has a learning benefit for the student (IBO, 2008a). CAS encourages students to be involved as part of a team in activities and actions within local, national, and international contexts (IBO, 2008a). Further, it enables students to enhance their personal and interpersonal development as well as their social and civic development through experiential learning (IBO, 2008a).

Integrated throughout the DP’s core components and the academic courses is the emphasis on the IB’s Learner Profile (IBO, 2008b). The profile lists 10 attributes of *international-mindedness*, some of which imply the development of cognitive competencies and others that emphasise dispositions and values. IB programmes seek to develop students who are inquirers, knowledgeable, critical thinkers, communicators, risk takers, principled, caring, open-minded, balanced, and reflective (IBO, 2008b).

This Learner Profile, woven throughout the core curriculum for all IB Programmes, promotes the knowledge, skills, and attitudes needed for success in a dynamic, flat, and highly inter-dependent world (IBO, 2008b).

Preparing Students for the Future

The Diploma Programme prepares students “for the evolving and increasingly global society as they develop physically, intellectually, emotionally, and ethically” (IBO, 2014). In addition to the focus on knowledge and understanding of cultures and concepts, students are best served if they are learning to learn; that is, developing the skills and attitudes toward future learning that will prepare them for higher education and also for employment (IBO, 2014). The DP’s requirement to study at least two languages is intended to enhance the understanding of culture—not just the ability to speak a language besides the mother tongue—that is becoming more important in the world today as we work alongside people of many cultures in environments that transcend national boundaries (IBO, 2014).

The emphasis on collaborative traits evident throughout the DP reflects the need for teamwork as we face growing economic, health, and political interdependencies through matters of trade, action for sustainable development, environmental protection conventions, politics, international travel, educational and work exchanges, knowledge and research exchange, demographic movements, health threats, international terrorism, company ethics, and more. This interdependency requires recruiting the most adept people for jobs—those who look outward at innovative opportunities with the ability to learn and adapt to new scenarios. Those who take refuge in a single skill set or preparation for employment where one comfortably stays in the same job in the same organization for life and are unaware of what is going on beyond national frontiers will not thrive.

Bringing an international perspective to education systems will be essential to respecting diversity, raising the skill level, and ensuring high standards and equitable outcomes for all students. Global thinking will also be essential for careers in the knowledge economy. According to Suarez-Orozco and Qin-Hilliard, “[e]ducation’s challenge will be to shape the cognitive skills, interpersonal sensibilities and cultural sophistication of children and youth whose lives will be both engaged in local contexts and responsive to transnational processes” (2004, p. 3).

Various authorities have identified characteristics for university and college success, many overlapping, but they show a common pattern of skills and behaviours that should be nurtured in tertiary education to produce graduates who are ready for employment or to otherwise lead fruitful lives. The number of desired skills, attitudes, behaviours, and values is exhaustive in the educational literature today, but the most important ones are consistent with the IB’s Learner Profile, and are enduring—mastery of these qualities will reap benefits time and time again for the foreseeable future. Such 21st century skills, touts the National Centre on Education and the Economy (2007) in its report *Tough choices or tough times*, include “creativity and innovation, facility with the use of ideas and abstractions, the self-discipline and organization needed to manage one’s own work and drive it through to successful conclusion, the ability to function well as a member of a team, and so on”. The report also supports standards, assessment, and curriculum reforms to education systems, suggesting that states adopt and create world-class syllabus-driven high school exams and mandate that curricula be based on mastery of key ideas and concepts, core facts and procedures, and capacity for creativity and innovation (2007). The IB was cited as an example of such world-class programmes.

Similarly, the Association of American Colleges and Universities (2007) report, *College learning for the new global century*, promotes mastery of cross-disciplinary knowledge, communication, teamwork, analytical reasoning, and real world problem-solving skills. Complementing those skills, according to Gardner's (2007) learning theory of multiple intelligences, are the:

- Disciplined mind, reflecting expertise in a field;
- Synthesising mind, supporting the ability to scan and weave thoughts into coherence;
- Creating mind, nurturing discovery and innovation;
- Respectful mind, encouraging open-mindedness and inclusiveness; and
- Ethical mind, constantly seeking moral courage.

Gardner's work included the emphasis on affective dimension, acknowledging that while knowledge and skills are important, it is perhaps more important to use the 'five minds' to form values related to international-mindedness (2007).

The IB Diploma Programme is unique. While it supports the highly acclaimed theories of learning, and is consistent with the work of innovative educational thought leaders, it is the only international university entrance qualification that does not originate from, or belong to, any one country. The IB focus from the beginning was, and still is, international.

What Does the Research Say?

The college and university performance of students taking the IB Diploma Programme has been studied in many countries by both consultants and educational agencies, and also by a wide array of universities themselves. Among those who have studied the IB, educational consultants David Conley and Terri Ward of the Educational Policy Improvement Center in Eugene, Oregon stated that:

The IB standards demonstrate a very high degree of alignment with the Knowledge and Skills for University Success (KSUS) standards in all subject areas. In addition, many of the individual IB standards are at a level more advanced than entry-level college courses. (IBO, 2010)

Research conducted in Mexico has also suggested IB DP holders are better prepared for college-level work (Rosefsky-Saavedra, Lavore, & Flores-Ivich, 2014). In the same line, research conducted in China found the IB educational curriculum and philosophy can develop in students the 21st century skills needed to succeed in higher education and beyond in one of the fastest-growing economies in the world. (Wright & Lee, 2014).

A 2010 study of IB student performance in the University of California system from 2000 to 2002 questioned how IB students fare academically in college and found that:

after their first year of college and at graduation, students from IB programmes earned higher grade point averages than did students in the comparison group and students in the UC population overall. This pattern held across all three cohorts. T-tests showed that the differences in the mean GPAs of IB students and the comparison group were statistically significant for all three cohorts in the first year, and for the 2000 and 2002 cohorts at graduation. (IB Global Policy & Research Department, 2010, p.4)

Hutchinson (2004) conducted research at the College of William and Mary, focused on the impact of the IB programme by comparing its curricular goals to recommended practices for gifted and general education, and found alignment with the protocols of the IB teachers' implementation of high levels of instructional clarity and complexity combined with high expectations for student learning in and out of class.

William Kolb, director of admissions for the University of Florida, conducted an extensive study of IB student performance based on data from the 1996 freshmen class, revealing that "IB students were better prepared for the shock of college academic demands and suffered less of a drop in grade point average in their first year of college compared to their high school performance level" (1996). Research involving the freshman classes of 1998, 1999, and 2000 at the University of Florida in Panich's study showed that IB diploma students had the highest GPA while IB non-diploma students had the lowest (2001).

The performance of IB students makes them very attractive to colleges and universities worldwide. Many offer university credits and scholarships to entice IB students to attend their institutions. For example, as stated in its admission policies:

The University of Dallas recognizes exceptional academic performance for those students who have earned their International Baccalaureate (IB) diploma. The academic standards of the IB curricula prepare future UD students for the intellectual rigor they will encounter throughout their years at the University. By recognizing the value of the IB diploma, the University of Dallas is sure to be enriched by those students who have demonstrated discipline and intellectual curiosity. (University of Dallas, n.d.)

There are fewer qualitative studies concerning the degree to which IB graduates display attitudes, values, and behaviours in line with the IB Learner Profile. In such studies it is notoriously difficult to isolate variables such that the researcher can claim that the subsequent outcomes were due to the programme undertaken. Nevertheless, such studies exist and infer positive outcomes for IB educated students. For instance, Hinrichs (2001) surveyed 53 IB and 50 Advanced Placement (AP) students in two Washington, USA state schools in the same district on the nature of international understanding and to what extent their programmes had contributed to such. Care was taken to match the cohorts on a number of external variables including demographic characteristics and prior test scores. Hinrichs synthesised the responses into seven components of international understanding, identified as skills for students to: live effectively across cultures, appreciate ethnic differences and diverse beliefs, recognise interdependence among nations, understand global issues, value peace and international interests over nationalism, understand how domestic policies affect the world, and respect democracy and basic human rights (2001). The IB objectives encompass all of these; for example, the IB *human condition* includes respect for human rights (2001). Statistically significant differences resulted, with the study showing that "IB students included more elements of international understanding as defined by experts in the field, and their [exam] answers were longer, more complex, more personal, and demonstrated exceptional insights" (2001, p. 106).

Similarly, a Swedish study tracked perceptions of graduates later in life regarding the value of their IB experience. Thelin, Flodman and Salminen (2002) obtained data from 362 Swedish diploma holders from 44 schools in different countries, the majority of them attending state schools in Sweden from 1971-1993. Among the 21 questions in the survey instrument, students were asked: "How valuable do you think your diploma studies have been for university studies, other studies, career, and their future life in general?" (2002). Responses were offered on a five-point Likert scale with options for: excellent, good, useful, little value, and no value. Sixty-three

per cent (63%) of the students had attended universities in Sweden, 12% in the UK, 10% in the USA and the remainder in other countries (2002). In relation to this question, 84% of the respondents said that the IB Diploma Programme was excellent (54%) or good (30%) preparation for university (2002). Eighty-one per cent (81%) said that it was an “excellent or good” preparation for a career and for life (2002). This study shows a high level of satisfaction with the IB Diploma Programme as preparation for endeavours beyond university.

In terms of mobility, Hayden and Wong (1997) found holding an IB Diploma increased international flexibility while at the same time preserving individual cultures and identities. According to these authors, the main objective of an international curriculum is to have students from diverse cultural and national backgrounds studying together while at the same time they obtain an education recognized by many higher education institutions worldwide (1997). This is probably why Paris (2003) found one of the key reasons why students choose to pursue IB studies, aside from having a superior curriculum and better qualified teachers, was the opportunity to continue studies overseas after graduation. Indeed, the IB Programme facilitates international mobility by satisfying “the most stringent university entry requirements so that it would become a recognized passport to higher education” (Hill, 2006).

Conclusion

IB students engage in critical thinking, seeking out primary sources and continually questioning and challenging. They display an interdisciplinary approach to solving global issues, entrepreneurship, and understanding what future scenarios are possible. They understand the interdependent nature of our world and the need for nations to collaborate. IB students exhibit leadership, personal growth, and compassion through community service. They understand and appreciate the importance of multiple perspectives as they interact with the increasing cultural diversity of communities at home as well as in travel abroad, and of course, via the Internet. They speak other languages—an important way of appreciating the different thought processes that accompany diverse languages. The higher education institutions that value such traits will not be disappointed in the maturity and grace of IB students. Such students will perform at a high level at university and go off into the world with skills and knowledge, well-honed values, cultural awareness and sensitivity, and a sense of confidence and pride—a result of their engagement with the IB Diploma Programme.

There is an abundance of literature that quantitatively examines the performance of IB students at university, showing correlation with their learning from the Diploma Programme, but very little research around the DP’s behavioural goals as envisioned by the IB’s early pioneers which shows post-university success. The intent of the thought leaders who developed the initial Diploma Programme was to create a balance of skill and knowledge with attitudes and behaviours - the latter are often difficult to measure. It is enlightening to see the very positive results of studies that measure acceptance of IB students into universities and their performance as students of higher education. These studies demonstrate that the IB students come to university with traits that are excellent predictors of university, employment, and lifelong success, but there are no longitudinal studies, of which the authors are aware, that clearly tie the completion of any IB programme to success beyond tertiary level study in general, and for employment in particular.

The anecdotal stories about employment success of IB Diploma Programme graduates are numerous however, and while they are not incorporated into this essay, they are as powerful as any word-of-mouth recommendation. Over the years, IB alumni in very senior positions in

international organizations have told us that they would hire other IB graduates simply because they know the quality of the students emerging from the Diploma Programme and how well they fare at university. Until there is research that supports this phenomenon, the anecdotes will have to suffice—and until there are assessment tools that measure the value of compassion, cultural awareness, critical thinking, ethical decision-making, confidence, internationalization in thought and deed and the other qualities and characteristics embedded in an IB programme, we will just have to appreciate the efforts of the early visionaries as we watch, with pride and awe, our young IB graduates develop into fine human beings who “help to create a better world”, as asserted in IBO’s Mission Statement (www.ibo.org).

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