Research summary

The IB teacher professional: Identifying, measuring and characterizing pedagogical attributes, perspectives and beliefs

Based on a research report prepared for the IB by:

Liz Bergeron and Michael Dean, IB Global Research Department

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Overview

The International Baccalaureate (IB) is a non-profit educational foundation, motivated by its mission to develop inquiring, knowledgeable and caring young people who help create a better and more peaceful world through intercultural understanding and respect. Founded in 1968, the organization currently works with more than 3,466 schools in 143 countries to develop and offer four challenging programmes to approximately 1,046,000 students aged 3 to 19 years (*IB fast facts*). The organization also provides professional development workshops for more than 60,000 teachers and administrators annually.

Teachers and educators in general are examining, with great interest, what it means to be a teacher (see Gage 1978; Shulman 1986; Hattie 2002: 3–26). This study examines the perspectives of IB teachers, with the hope of better understanding this population. The research aims to promote reflection and discussion about teaching within a variety of disciplines, contexts and cultures, and contribute to the understanding of teaching within IB programmes.

The findings from this research may offer insights to assist in the design and implementation of IB professional development and other services to schools, as well as promote awareness and understanding among the wider educational community of IB teacher professionals, their distinctive qualities, and related teaching and learning perspectives and beliefs. This study is guided by the following research questions.

1. What are the *perspectives* of existing IB educators as measured by The Teaching Perspective Inventory (TPI)? What patterns exist in the population?

2. What are the important *pedagogical attributes, perspectives and beliefs* of an IB teacher professional as defined by existing IB educators?

3. What are the important *pedagogical attributes, perspectives and beliefs* of an IB teacher professional, as defined by IB documentation?

4. What are the commonalities and/or points of departure as identified from a comparative analysis of the various data corpuses derived from the existing IB teacher community, IB documentation and extant literature?

Research design

This project uses a concurrent mixed methods design to investigate the attributes, perspectives and beliefs pertinent to an IB teacher. To address the research questions, quantitative analysis of Likert survey items was combined with qualitative analysis of open-ended survey items, focus group transcripts and IB documentation.

Research question 1: IB teacher perspectives as measured by the TPI

The TPI (Pratt, Collins 2000) was administered online to IB teachers who recently participated in IB professional development. Because IB schools are required to support ongoing professional development, this sample does not necessarily include teachers who self-select to attend professional development. Of the 3,845 responses received, 3,184 had answered all the TPI and demographic items and were therefore used for the analysis.

The TPI operationalizes Pratt's (1992; 1998) five teaching perspectives into five separate scales addressing actions, intentions and beliefs. Each of the five teaching perspectives is represented by nine items. Respondents receive a profile reporting their dominant perspective (the perspective with a score at least one standard deviation above the mean of the remaining four) and their recessive perspective (the perspective with the lowest score). Scores range from 9 to 45 for each perspective.

Table 1

Transmission:	Transmission teachers have strong content commitment; teacher's primary responsibility is to represent the content accurately and effectively for learners.
Apprenticeship:	Effective teaching is a process of enculturating learners into a set of social norms and ways of working.
Developmental:	The primary goal is to help learners develop increasingly complex and sophisticated cognitive structures for comprehending the content.
Nurturing:	Learners are nurtured by knowing that (a) they can succeed at learning if they give it a good try; (b) their achievement is a product of their own effort and ability.
Social reform:	Effective teaching seeks to change society in substantive ways. From this point of view, the object of teaching is the collective rather than the individual. Good teachers awaken students to the values and ideologies that are embedded in texts and common practices within their discipline.

Research question 2: Attitudes, perspectives and beliefs defined by IB educators

Qualitative data was collected from in-person focus groups and the online survey. Two separate hour-long focus groups guided by a four-item protocol were conducted at workshops in each of the following countries: Peru, Spain, Hong Kong and the United States. Across the eight focus groups there were a total of 72 participants. The same four open-ended items used in the focus groups were added to the online TPI survey to better understand participants' views about IB teaching specifically. Respondents were asked the following.

1. If there was an IB teacher profile, what do you consider to be 5 to 10 critical attributes that should be included? Please list and briefly describe each one.

2. Are there any differences between an IB teacher and a non-IB teacher? If yes, please describe.

3. What changes, if any, have you experienced since becoming an IB teacher?

4. What excites you most about being an IB teacher?

Additionally, background information, such as teaching experience, IB teaching experience, IB programme and subject area was requested from each respondent.

The first open-ended survey question was analysed through a word frequency count. The remaining open-ended survey questions and the focus group transcripts were analysed using an inductive approach (Maxwell 2005). Codes were added or modified as necessary based on new understandings that emerged (Schilling 2006). Codes were compared and organized into descriptive categories (IB teachers and teaching) enabling easier analysis.

Research question 3: Attributes, perspectives and beliefs defined by

IB documentation

A systematic review of 73 IB-produced documents was undertaken. Content analysis enables large volumes of text to be reduced to a set of core ideas (Patton 2002). The objective was to search, read and objectively and systematically review relevant IB documentation (IB-published materials such as curriculum documents, teacher-training materials and position papers) so that inferences can be made about the focus of the IB. This process is described as "data reduction and sense-making … to identify core consistencies and meanings" (Patton 2002: 453). This study does not attempt to define what **should** be, but instead aims to show what the analysis revealed. A coding scheme was created using both qualitative themes from the focus groups and open-ended survey items and the quantitative themes from the TPI, themes from extant literature on teaching, and a word frequency count.

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Research question 4: What are the commonalities and/or points of departure as identified from a comparative analysis of the various data corpuses derived from the existing IB teacher community, IB documentation and extant literature?

A literature review aimed at describing the important *pedagogical attributes, perspectives and practices* of excellent teaching was conducted by Glynn Kirkham in collaboration with the IB Global Research team. The review sought to explore the concept of the excellent teacher from multiple perspectives, recognizing that the definition is dependent on the values and contexts that underpin teaching at a particular time and place. Results from this review were used as a framework to examine findings from the first three research questions.

Limitations

This research method relied heavily on self-reported data from IB teachers. The TPI, focus groups and open-ended items might not reflect the actual practice of IB teachers. There could be some social desirability to report a certain practice and that might influence the responses. Additionally, while participation in IB professional development is required for schools, the selection of teachers within schools might not reflect the population of IB teachers.

Findings

Research question 1: IB teacher perspectives as measured by the TPI

The IB TPI average scores can be viewed in two ways. First, in isolation, as an average IB teacher profile, similar to the profile an individual would receive after completing the TPI. Second, the TPI average scores for the IB sample can be compared with the average scores for the TPI database sample. When the sample of IB teachers is viewed as one unit, the average IB teacher's profile has *nurturing* as the dominant perspective with "back-up" perspectives of *apprenticeship* and *developmental*. The patterns observed in the IB population are similar to the TPI pre-K–12 sample with some exceptions. *Nurturing* is the dominant perspective for both groups and is generally higher for females than males. *Social reform* is the lowest perspective for both populations.

When the IB TPI scores are compared with the norms of other primary and secondary teachers, the IB teachers are in at least the 60th percentile on *social reform*, *developmental*, *apprenticeship* and *transmission*, indicating that IB teachers have high scores relative to the full TPI pre-K–12 sample in all four of these perspectives. This comparison suggests that IB teachers have higher scores in these perspectives than 60% of the TPI pre-K–12 sample. Having four high scores is not unusual, but having four high scores at the 60th percentile suggests that IB teachers identify with these four perspectives more than the average teacher in the TPI pre-K–12 sample.

The level of instruction appears to impact both the IB population and the larger TPI pre-K–12 sample. Similar patterns between IB and the TPI pre-K–12 sample are observed. *Transmission* is generally higher for secondary teachers just as it is for IB Diploma Programme teachers. Similar to IB Primary Years Programme teachers, pre-school and elementary teachers have higher *nurturing* scores.

Research question 2: Attitudes, perspectives and beliefs defined by IB educators

Several main themes were identified within the focus groups and open-ended questions. Themes that emerged included:

1. international-mindedness

2. open-mindedness

3. flexibility

4. teaching approach/skills/beliefs

5. collaboration

6. universality of good teaching

7. love of teaching.

The main challenge that emerged was that teachers felt as though they and their students had to work harder. Teachers felt that they spent more time grading and completing paperwork than they did before becoming an IB teacher or compared to non-IB teachers in their schools.

The first open-ended survey item asked respondents to identify attributes they would include in an IB teacher profile. The most common responses included: learner, knowledgeable, open-minded, thinker, caring, worldly, understanding, creative and reflective. Many of the common attributes listed by the teachers are clearly drawn from the IB learner profile. Teachers often responded that the same attributes of the learner profile should be the teacher profile. The teachers expressed the idea that they are role models for the students and if they desire an outcome in the student they must embody it themselves.

Research question 3: Attributes, perspectives and beliefs defined by

IB documentation

Content analysis of IB documentation was used to identify attributes, perspectives and beliefs contained in IB documentation. The overall themes identified in this coding process provide a picture of what the IB documentation implies about being an effective IB teacher. The codes were merged into three larger overarching themes: approaches to teaching, beliefs about teaching and tools to facilitate effective teaching.

Table 2

Themes and codes from the document analysis

Theme	Codes
Approaches to teaching	Connections; inquiry; student thinking; student centred; unique learner; teacher as guide
Beliefs about teaching	Global, international, cultural; sense of social responsibility; whole student
Tools to facilitate effective teaching	Teacher reflection; collaboration; assessment; teacher adapt, create, modify

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Research question 4: What are the commonalities and/or points of departure as identified from a comparative analysis of the various data corpuses derived from the existing IB teacher community, IB documentation and extant literature?

The fourth research question in this study aimed to uncover any commonalties and points of departure among the data corpuses. The TPI survey and the literature review provided opportunities for certain kinds of comparisons between IB teachers and the non-IB teaching population. The IB teachers appear to be aligned with the TPI and extant literature findings with a few prominent exceptions.

Teaching Perspectives Inventory. The teaching profile for the average IB teacher was found to be similar to the profile of the average teacher in the TPI database with some exceptions. Both groups have the same dominant (*nurturing*) and back-up (*apprenticeship* and *developmental*) teaching perspectives. However, even though the IB teachers scored highest in *nurturing*, the scores for *social reform*, developmental, *apprenticeship* and *transmission* are high when compared with how other teachers generally score on these perspectives. Instead of having one or two very high scores on perspectives the IB teachers' scores on all the perspectives are relatively close. This leads to an unusually low score on the highest perspective (*nurturing*) and unusually high scores on the lower scoring perspectives (*social reform*, *developmental*, *apprenticeship* and *transmission*), suggesting that IB teachers identify strongly with profiles that are not necessarily dominant.

The extant literature. The review of research evidence on teacher excellence over the past 40 years highlighted a range of characteristics of excellent teachers. Over time there has been considerable consistency and consonance with the findings, no matter how they were classified or defined. One notable change in some contexts is the increased focus on the learner. There are a myriad of effective teachers and innumerable descriptions for excellent teachers; therefore it is natural to have many commonalities between the attributes, perspectives and beliefs of IB teachers and the literature on excellent teaching. The literature findings are broad enough that many of the identified attributes, perspectives and beliefs of IB teachers are included as examples of one type of effective teaching.

Commonalities. The attributes, perspectives and beliefs of IB teachers identified in this study are well documented in the IB literature and clearly expressed by IB teachers. As shown in the literature review, many of these very same elements are used to describe excellent teachers. The IB attributes, perspectives and beliefs identified are not the only examples of excellent teaching in the extant literature, but many are frequently referenced. Additionally, there are several aspects of IB teaching that appear to be a critical aspect of the IB's unique identity. It is not expected that excellent teachers embody all of the identified attributes, perspectives and practices. These are simply a collection of research-based findings that the literature suggests improve teaching and therefore improve student learning. Excellent teachers, IB or otherwise, share a combination of creative, fair, flexible, open, caring and knowledgeable attributes. Excellent teachers have an underlying belief about teaching that motivates them and they choose among many evidence-based best practices.

Departures. International-mindedness as a teaching perspective, while not well documented in literature outside of the IB, seems to be an essential aspect of the unique identity of IB teaching. This is not to suggest that other teachers do not embrace this belief. The literature at this time simply does not indicate there are many other groups of teachers who collectively embrace this belief. Further, by combining international-mindedness with inquiry-based teaching and social responsibility, the IB has created a unique identity simply by the combination selected. The IB teacher community tends to embrace the ideas of social responsibility and international-mindedness more than the non-IB community, but this is not to suggest that a disconnect exists or that there is disagreement in the education community. The extant literature on excellent teaching incorporates these ideas; they just aren't the ideas repeatedly presented in the literature.

Conclusions

If the attributes, perspectives and practices of IB teachers were to be described succinctly, the description would include inquiry, global, whole student, connections, social responsibility, creative and flexible. The data sources support the notion that IB teachers are advocates of whole-student inquiry-based instruction with the purpose of creating global citizens who have a sense of social responsibility. The teachers are models of the learner profile, with an emphasis on "open-minded", who are also creative and able to adapt learning to meet the needs of the students. The importance of connections between and across the content and to the real world was present in all the data sources. The IB teachers were fairly consistent in their responses on the TPI, focus groups and open-ended survey items, suggesting IB teachers are similar.

Attributes. Overwhelmingly, the IB teachers expressed that if they were to describe themselves, they would use the IB learner profile. Specifically, the IB teachers believed being an IB teacher meant:

1.   being a learner themselves

2.   being knowledgeable about teaching, their content area and the world

3.   being open-minded and growing from learning from others

4.   being a thinker and problem solver, knowing that one size does not fit all

5.   being caring and understanding

6.   being creative in teaching and learning

7.   being reflective in their teaching

8.   being worldly and aware of different cultures and global issues.

The content analysis reinforces these IB teacher characteristics. IB documentation frequently references IB teachers as models of the learner profile and also explicitly states the importance of creativity in teaching.

Perspectives. IB teachers seem to be motivated to educate the whole student, with an emphasis on enabling education to be a vehicle for making a better world. While not one of the highest perspectives for IB teachers, when compared with the larger TPI pre-K–12 sample the *social reform* average for IB teachers was higher than 60% of all teachers completing the scale. Research on the larger TPI pre-K–12 sample suggests that respondents whose first language was other than English had slightly higher *social reform* totals (Collins, Pratt 2010), suggesting that perhaps the international dimension has an impact on this perspective. The qualitative analysis revealed that IB teachers valued teaching with an internationally minded approach and embodying and instilling open-mindedness. The words used to describe open-mindedness and international-mindedness go beyond just teaching methods. The ideas include tolerance, assistance and understanding of others. These ideas are essential to the descriptions IB teachers provided and align with descriptions in the IB teacher documentation.

Beliefs. The views on beliefs about practice gleaned from the IB teachers and documents suggest that IB teachers value using inquiry-based instruction and the flexibility to use their professional judgment. IB teachers articulated the importance of flexibility to design effective instructional activities based on the needs of their students and the context of their school, and as a group tends to draw from research-based best practices. This flexibility enables teachers to use their professional judgment to form their teaching practice.

Teaching is complex and describing excellent teachers is not a simple task. The intention of the description in this report is to provide one documented account of an effective combination of skills, perspectives and practices. It is important to note that not all IB teachers are represented by the profile outlined in this report; and IB teachers certainly champion additional perspectives and adopt practices not discussed in this report.

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