A study of the perceptions of International Baccalaureate Primary Years Programme teachers on factors influencing their development as PYP educators

Executive Summary

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Introduction

The aim of this study was to analyse the experiences and perspectives of PYP educators with regard to their PD, and the changes in views and practices they experience when adopting the programme. The study explored educators' initial views of the PYP, to what extent these change over time, and the influences, both formal and informal, that support any change in beliefs and practices. The study also helped to identify which formal or informal PD activities are most influential in developing confident PYP educators.

Research Questions

- **What do IB PYP teachers consider to be the main factors influencing their development as PYP educators?**

- **How do PYP educators change their views and practices over their time working with the programme?**

Literature review

PD is defined in many different ways in the literature, ranging from formal, collective opportunities such as workshops and courses, through collaborative opportunities (both formal and informal), such as professional learning communities, work-embedded programmes and networking with colleagues, to more individualised opportunities, including self-study and professional reading. For this study, the terms 'professional development' and 'PD' are used to describe all the factors that influence what teachers do in the classroom, how they do it, and what they believe about its impact on student learning.

The role of PD in educational change is argued clearly in the literature; without systematic opportunities to discuss, experiment with, practice, reflect on and understand new ways of working in context with

colleagues, changes in practice are unlikely to be sustained. Beliefs about teaching and learning are, it is argued, unlikely to change until practitioners experience success with the practices connected with these.

The extensive literature on effective PD seeks to identify the crucial features affecting its success. Hunzicker (2010) attempts to produce a checklist, and her headings are sourced from, and echoed throughout, the literature:

- **Supportive**: combining individual and school needs (Elmore, 1997 and 2000; Ganser, 2000; Guskey, 1994), accommodating individual learning styles and context (Petrie & McGee, 2012; Payne & Wolfson, 2000)

- **Job-embedded** (Fullan, 2001; Elmore, 2000; Figgis, 2009; Ganser, 2000; Kedzior & Fifield, 2004)

- **Instructional focus** (Elmore, 2000, Tasker et al, 2010, Gersten et al, 2010)

- **Collaborative** (Fullan, 2001; Elmore, 2000 and 1997; Guskey, 2002; Voogt et al, 2012; Figgis, 2009; Tasker et al, 2010; Gersten et al, 2010, Powell, 2000; Garet et al, 2001)

- **On-going** (Elmore, 2000; Kedzior & Fifield, 2004; Payne & Wolfson, 2000; Powell, 2000; Garet et al, 2001)

As Bergeron and Dean (2013:69) identified, *"by combining international-mindedness with inquiry-based teaching and social responsibility, the IB has created a unique identity simply by the combination selected."* Twigg (2010:50) found that characteristics needed by PYP teachers who transform their practice included being open-minded, flexible and adjustable, a belief in shared responsibility for learning between students and teachers, a disposition for self-reflection, and a *"resolve to face up to the challenges"* of a new way of working (Twigg, 2010:50). Her findings suggest the need for a focus from within schools on self-empowerment and reflective dialogue in order to find and retain *"innovative and independent teachers who enthusiastically promote and maintain inquiry-based teaching practices."* (2010:58)

With its highly idealistic vision for an education that prepares students to be *"inquiring, knowledgeable and caring young people who help to create a better and more peaceful world"* (IBO, 2009:ii), the success of the PYP is dependent on committed and passionate teachers bringing to life the ethos and pedagogy of the programme. The IBO offers an extensive PD programme that is predominantly formal in nature. However, there is substantial support in the literature for more informal methods, along with collaborative and context-based approaches to developing changed practices and beliefs.

Methodology

The study uses a mixed methods approach, seeking both quantitative and qualitative data through the use of a survey, followed by further qualitative collection of data through the use of focus group discussions. The use of an online survey in the initial stage of the study was selected to maximize the potential sample size and produce comparable and quantitative data.

Survey Design

The survey initially collected basic information about geographical location, years of experience and current professional role. The ensuing questions allowed participants to rate the extent to which a variety of PD opportunities, both formal and informal, had contributed to their understanding of the PYP. The list of options was derived from the formal offerings made by IB PYP PD arm, alongside more informal options that emerged as effective from the literature review. While the literature mentioned professional learning communities (PLCs) in a variety of ways, the lack of a universally accepted definition of this led me to exclude this terminology from the survey, and instead refer to collaboration with colleagues as a broader and more generic term.

The options can be loosely clustered into three categories as seen in Figure 1 below. Collective, collaborative or individual opportunities are driven by different factors – collective opportunities are generally directed, either by the IBO or the school, whilst individual opportunities tend to depend on self-motivated learning. Collaborative opportunities can be more or less formal: either facilitated by the organisation, or developed by groups of self-motivated individuals. These categories were not indicated in the survey, but were utilised in the data analysis.

Formal			Informal
	Traditional v reform PD experiences (Garet et al, 2001)		
Organisation-based Collective	School-based Collective	Collaborative	Individual
External, generic, short duration, participants need to seek and apply relevant content individually, little or no follow-up, widely criticised in literature (Fullan, 1979, 2001; Powell, 2000; Sparks, 2002)	Internal (Hayden, 2007) School based – collective: Context embedded, continuous, on-going (Hunzicker, 2010)	School based – collaborative: Based on "collaborative work culture" (Fullan, 2001), "construction of a shared reality" (Rozenholtz, in Fullan, 2002)	Personalised. Based on self-awareness and reflection. Dependent on collaboration with at least one other individual. Constructivist. Self-directed learning (Cummings, 2011)
Examples: • IB authorised regional workshops • IB authorised online workshops	Examples: • IB authorised in-school workshops • Non-IB in-school professional development • PYP coordinator or other school leader • Staff meetings	Examples: • Collaboration with colleagues (collaborative planning meetings, PLCs, staff meetings, professional conversation, etc) • Learning on the job • PYP coordinator or other school leader • Observing colleagues in the classroom • A mentor	Examples: • Learning on the job • Relationships with colleagues or peers outside own school • IB online resources • IB publications • Online communities

Figure 1: Continuum of professional development experiences

Use of a four point Likert scale allowed participants to demonstrate the intensity of their opinion about each PD opportunity, but also ensured that they demonstrated a clear view leaning more towards positive or negative. A comment box after rating each opportunity enabled participants to clarify their selections to some degree, as well as add other influential PD opportunities not included on the list.

Additional open response questions then followed, asking their early and current impressions of the programme, their most significant challenges, and their views on how much their practice has changed.

Survey and focus group samples

The online survey sample was derived initially by soliciting responses from colleagues in my own school, as well as other schools in Dar es Salaam and Tanzania. Professional contacts in the IB Educator Network and past colleagues in current administrator roles were asked to participate and circulate the survey amongst their staff. Finally, social networking sites including Facebook and LinkedIn pages targeting IB PYP educators were used to post a link to the survey. The final question in the survey allowed participants to indicate a willingness to participate further. From those who responded, staff from two neighbouring schools in Dar es Salaam asked to participate in two focus group discussions.

Analysis of survey data

The survey received a total of 352 responses from 71 countries, of which 296 were complete. However, of the 56 incomplete responses, 29 provided statistical data that could be included in the analysis of Question 5 regarding which sources had contributed to their development as PYP educators. Thus, a total sample size of 325 was used to determine the data below.

Figure 2 shows the number of respondents from each region. While the largest proportion of respondents was expected to be from Tanzania (56; 17%), in fact, there was a surprisingly wide and balanced range of response from different locations around the world. The two schools in Tanzania with the highest responses are quite different in demography of both staff and students, and high responses were also received from Europe and the Middle East.

Region	Number of respondents	Percentage of respondents
Africa	75	23%
Asia	63	19%
Europe	75	23%
Middle East	70	22%
South America	12	4%
North America	23	7%
Australasia	7	2%
Total	**325**	**100%**

Figure 2: Number and percentage of survey respondents by region

Figures 3 and 4 below show participants' range of years of experience, both as a teacher, and working within the programme.

Teaching experience	#	%
< 1 year	2	1%
1-2 years	8	2%
3-5 years	18	6%
6-10 years	66	20%
11-15 years	86	27%
16-20 years	58	18%
20+ years	85	26%

Figure 3: Respondents' number of years of overall teaching experience

PYP experience	#	%
< 1 year	16	5%
1-2 years	36	11%
3-5 years	72	23%
6-10 years	125	40%
11-15 years	54	17%
16-20 years	12	4%
20+ years	1	>1%

Figure 4: Respondents' number of years of PYP teaching experience

Respondents held a variety of roles (Figure 5), with more than half working as classroom based teachers. More than 40 additional roles cited in the comment box included subject coordinators, grade or team leaders, teacher-librarians, technology integration teachers, counsellors and teacher assistants. More than half of respondents had only worked in one PYP school, with only seven having worked in more than four

schools. 14% of respondents identified themselves as IB Educator Network members, including workshop leaders, school visitors and consultants.
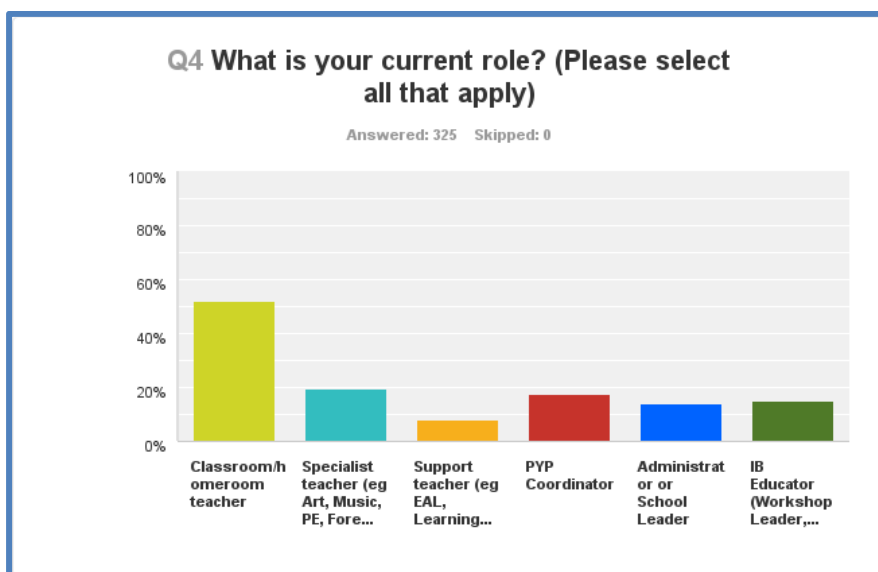

Q4 What is your current role? (Please select all that apply)

Answered: 325   Skipped: 0

Figure 5: Respondents' current roles in PYP schools

Influence of different PD opportunities

Question 5 provides quantitative data showing which kinds of PD have been most influential to respondents. Each selection was rated according to the level of influence each had on each respondent's development. The bar chart [Figure 6] demonstrates which were rated most highly (either "very much" or "somewhat") in descending order.

The most highly rated sources of influence on development were "learning on the job" followed by "collaboration with colleagues" (both over 90% of "very much" or "somewhat" ratings). "IB publications" were also rated highly, followed by the "PYP coordinator" at more than 80%. The least influential sources were "IB authorised online workshops" and "a mentor allocated by the school", with more than half the respondents having not accessed either of these sources. Just over 30% in each case found these to be

useful. Other online options ("IB online resources" and "online communities") also rated relatively low scores, while IB authorised workshops, both regional and in-school fell into the midrange.

A comment box invited participants to add any other sources that have influenced their development. Of the 70 responses, 16 people mentioned other kinds of study, including higher education (Masters courses), and workshops by non-IB consultants or organisations: specifically cited were Kath Murdoch, Lyn Erikson, and the Reggio Emilia Foundation. Thirteen respondents identified themselves as members of the IB Educator Network (IBEN) and indicated that training to become a workshop leader or school visitor, as well as subsequent collaborative work with IBEN colleagues had influenced their development.
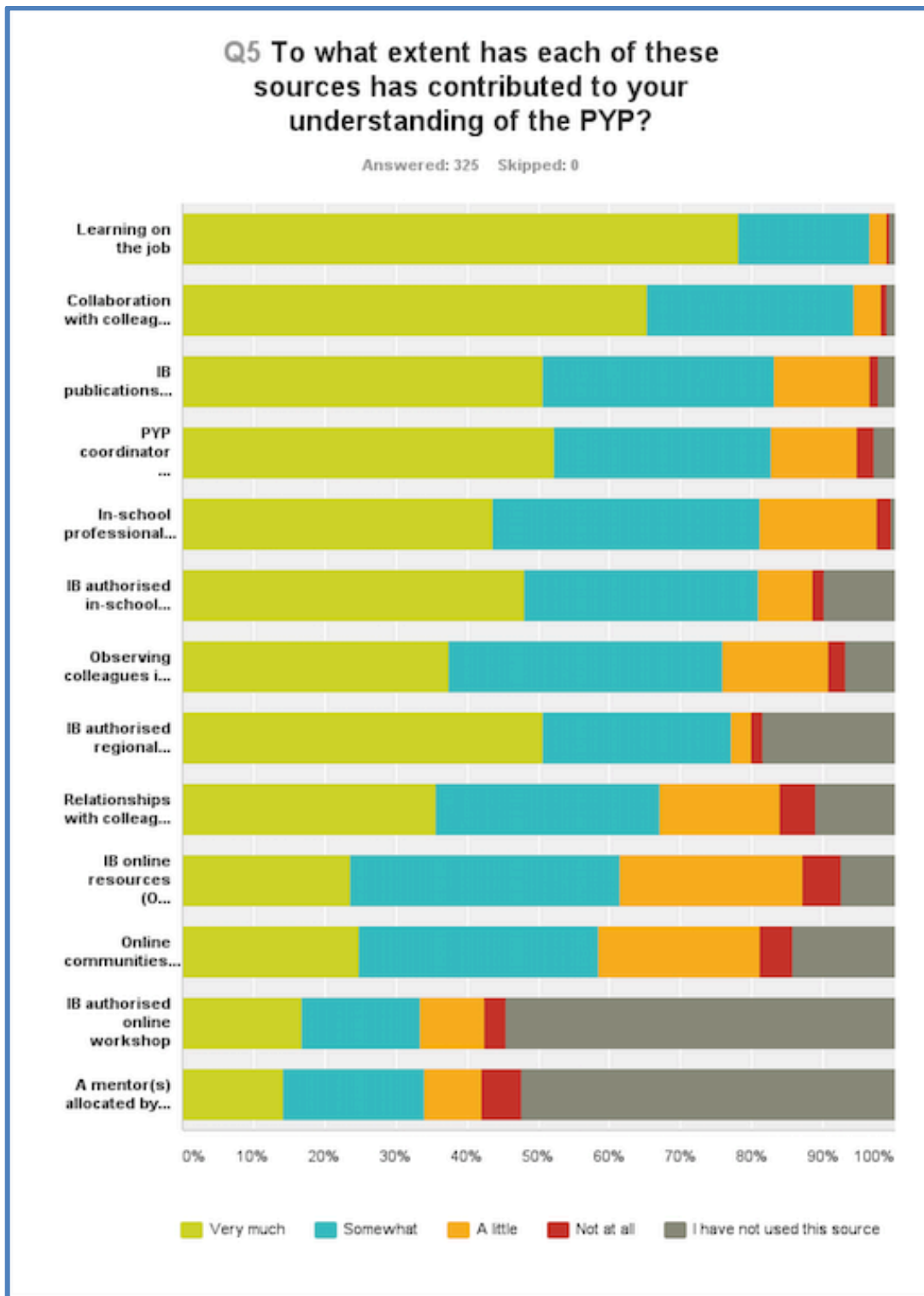
Figure 6: Influence of various sources on development of PYP educators

Other influences on PD cited included various online sources including social media groups such as
LinkedIn (from where many respondents accessed this survey) and Twitter, and TEDtalks. Professional
reading, a specific individual who acted as an informal mentor. A number of school based activities also
received mentions, including collaborative planning within the school, other communication and sharing of

practice (including communicating with parents) and preparation for PYP authorisation. Networking of some kind was mentioned in ten comments, with four people describing their personal understanding or attitude as having an impact on their development.

The significance of different learning needs and styles becomes evident from the wide variety of responses, many with opposing views. Some comments referred directly to this issue with statements such as "I learn best by…", with an implication that their learning style might differ from those of others, or from some of the PD opportunities they have received.

Another interesting trend was the number of comments that referred to a combination of two or more sources, with the impact being a result of the specific combination. Every respondent cited at least three different influences that were either very or somewhat helpful. IB documentation was mentioned often in tandem with collaborative with peers, a workshop context, or alongside a PYP coordinator or other leader. The accreditation process received a number of mentions, giving educators an external motivation to reflect on and improve their practice.

Most mentioned was collaboration with peers or colleagues, with more than 43% referring to this in their response. Reasons for this included the opportunity to share, discuss, and reflect together face-to-face on a day-to-day basis. The notion of learning from more experienced colleagues, as well as the "synthesis of all our training" suggested that the whole could be seen as greater than the parts: "…we bat ideas around until we develop a good one".

Relationships were mentioned repeatedly, with the idea that working together over time helped to provide a safe and encouraging environment in which to try things out, challenge thinking and develop ideas. Relevance to the age range or subject being taught, and an opportunity to see, share and try out things that work were also mentioned. One respondent summarised the idea of collaboration as follows:

"I believe the single most important thing that contributes to develop as a PYP educator are the relationships we develop with others in the schools we work (sic). Learning is very much a social process and development is huge when we are surrounded by passionate, driven educators and strong leadership, who have the confidence to reflect on their own practices in order to move forward. The idea being that you are never "there" as a teacher and that we can always improve and challenge ourselves further, and that our practices can and should change over time. Schools as professional learning communities have really helped shape me as a PYP practitioner. I think this is because learning happens with others, not in isolation."

IB workshops were mentioned by 27% of respondents, and of these 86 responses, 36 specifically cited regional workshops. Some of the advantages of this format included access to diverse perspectives, the in-depth analysis of the subject, face-to-face and interactive format and the concentrated work away from distractions (although one person mentioned finding this overwhelming). One person referred to the importance of a regional workshop early in their PYP journey: "the learning was steepest at the beginning." The quality of the workshop leader(s) was referred to often, and participants felt that this format was dependent on the knowledge, experience and skill of the workshop leader.

Online workshops were cited as beneficial by eight respondents, while in-school workshops were mentioned by 13, with comments about relevance to their own context, face-to-face nature, and collaboration with peers. Other school-based PD was mentioned by 33 respondents, with relevance to context and regular accessibility as the reasons most often given. In-school PD formats mentioned included planning meetings, sharing sessions, training given by IBEN colleagues within the school, weekly PD focused staff meetings, PLCs, the induction programme, and working towards authorisation or evaluation.

The PYP coordinator or other school leader's influence was mentioned 54 times (17%), with many personal characteristics described, including passion, dedication, knowledge, experience, support, encouragement, creativity and inspiration. Some described this person as a 'mentor', while others referred to another influential person, such as a co-teacher or colleague. Although very few respondents identified a mentor allocated by the school as a significant influence (more than 50% have not used this source), those that identified an individual as influential (13 responses, 4%) used powerful language to describe them: "privilege", "partnership", "profound impact", "significant", "outstanding", "excellent", "greatest", "inspiration", "passionate", "excitement".

Learning on the job was also significantly represented (50 responses, 16%), with similar themes emerging as for collaboration with peers. Practical, putting theory and learning into practice, working through the process, trial and error, hands-on experience, creativity, real-life situations, refining the planner and practice over time were all cited as examples of this influence on their development. A number of quotes emerged that strongly supported Guskey's (2002:383) assertion that teacher change only occurs after applying new methods and seeing that they work.

- "Learning on the job has taught me to think on my feet. It shows me what really works with students."
- "Theory can only get you so far, you have to practice and refine."
- "…self discovery on the job. Once became familiar and confident with the PYP I was able to explore, take risks and extend expertise in the PYP."
- "… until you actually do it, it doesn't all come together in your head."
- "… the classroom is the real testing ground of the theory that we learn at workshops… and to be able to apply it successfully, validates its authenticity, develop our own conviction and thereby, strengthening the understanding."

- "Without a doubt it has been my personal experiences working with children. Nothing compares to the life experience, the trials and tribulations with inquiry lessons and the amazing way in which children actually teach teachers how to improve."

One respondent neatly identified the overlap between many of the more informal development opportunities on the list: "Learning on the job – I learn by doing. Although learning on the job includes some of the other criteria… It is hard to separate collaboration or picking up clues in staff meetings, or what I learn when our coordinator discusses our planners from 'the job'. That is part of it."

Commitment to the PYP

More than 90% of respondents demonstrated commitment, with more than 70% unequivocal in this response. More than 60% of respondents found the PYP to be challenging, with some specifying in a subsequent open-response box that they found it challenging in a good way.

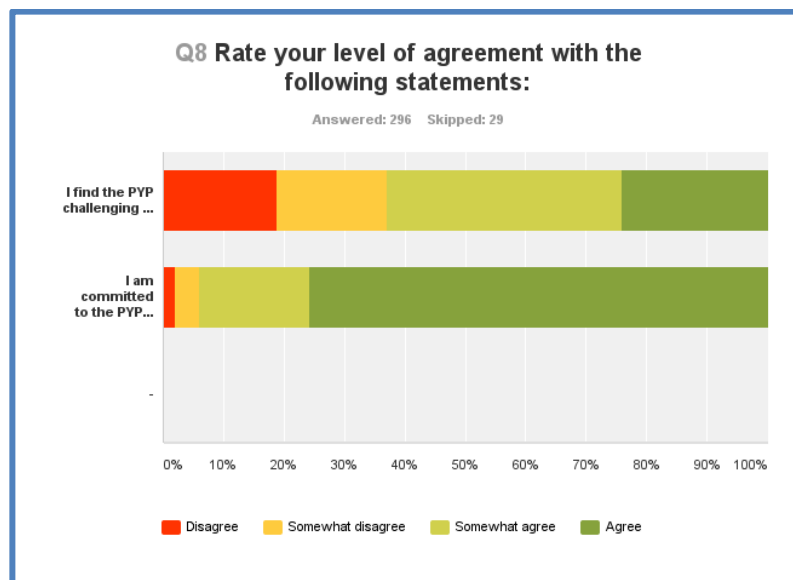**Figure 7: Respondents' commitment to, and extent of challenge with working with the PYP**

The importance of teacher commitment to the programme arose in a number of open-ended responses. "The philosophy is good, but teachers teach it but don't always BE it." "It's challenging to run, not because it's difficult to understand but it pushes teachers to facilitate, not deliver. That's much more difficult to do,

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it requires critical and creative thinkers, people who are flexible, who enjoy change, who are constantly revising and developing… it is not for teachers who want to re-use their work from the year before."

Initial and current view of the PYP

Questions 9 and 10 asked respondents to recall their initial view of the PYP, and indicate their current opinion of the programme. The results are shown in Figures 8 and 9.

First impressions of the PYP	Number of respondents Total 284	Percentage
Positive	128	45%
Negative	119	42%
Mixed	27	9%
Non-committal	10	4%

Figure 8: Respondents' initial impressions of the PYP

Current view of the PYP	Number of respondents Total 279	Percentage
Positive	172	62%
Negative	37	13%
Mixed	64	23%
Non-committal	6	2%

Figure 9: Respondents' current view of the PYP

A comparison between responses to the two questions was able to indicate whether participants' views had changed from their initial view to their current view (Figure 10).

Current view compared to initial view of programme	Number of respondents Total 279	Percentage
Similar or comparable	116	41%
Improved	130	47%
Less positive	31	11%
Non-committal	3	1%

Figure 10: Respondents' changes in view over time

Of the 284 respondents to the question about first impressions of the PYP, 27 expressed a mixed initial view, most suggesting that while they saw positives in the programme, there were aspects that they found

overwhelming or confusing. Those who had negative initial views of the programme mentioned a range of reasons, with those most recurring under the following themes:

- Overwhelming, intimidating

- Difficult, challenging

- Unclear, confusing, complicated, too many pieces, a lot to learn

- Wordy, jargon, terminology, vocabulary

- Laborious, demanding, lots of work, tedious, documentation, paperwork

Positive initial impressions to the PYP included a sense of affinity or agreement with its philosophy. Some responses included exclamations and adjectives indicating a high level of personal or emotional connection to the programme: "right-on", "awesome", "wow", "love it!", "this is it!" The programme's child-centred nature appealed to many respondents, with many describing the kinds of students they thought would emerge from such an education: "independent, capable, lifelong learners", "well-rounded", "self-directed learners", "engaged", "meta-cognitive". Transdisciplinary learning, an emphasis on inquiry and the inclusion of values-based learning, in the form of the Learner Profile, attitudes and focus on international-mindedness and global citizenship also appealed to many. "It might sound silly, but I do think it can change the world."

When responding to their current view of the programme, an increased number of respondents indicated a mixed view, including positive and negative aspects. Most of these indicated some level of commitment to the programme, and their negative views included reference to the amount of jargon, the vagueness of some aspects of the programme, the rigidity of some parts of the framework, or excessive documentation.

A substantial 47% demonstrated some improvement in their overall attitude to the PYP in their responses, with many references to a deeper understanding of the programme once the initial confusion and overwhelmed feelings had subsided. These respondents generally reported an increased agreement with

the philosophy, and an understanding of the elements of inquiry, transdisciplinarity, and concept-based learning.

The less positive views described by those with mixed or negative responses included a continued feeling that the framework was overcomplicated. A few mentions came from educators who were grappling to combine the PYP with state or national standards, and others who remained concerned about the lack of basic skills such as reading or numeracy development. A number of early years educators voiced the feeling that best practice in early childhood might be at odds with some of the requirements of the PYP.

Most challenging aspects of the PYP

This two-part question resulted in a wide variety of responses, with many including more than one challenge. Challenges mentioned in five or more per cent of responses are listed in Figure 11 below.

What have been the most challenging aspects of the PYP for you to understand and implement?	# of respondents	Percentage
Planning – using the PYP planner, planning collaboratively	53	19%
Understanding and implementing an inquiry-based approach, student-led inquiry	51	18%
Shifting from content-based to concept-based	35	13%
Integration, transdisciplinarity, especially for single subject teachers, the role of specialist teachers in programme of inquiry.	30	11%
Aligning PYP with external curricular requirements or stand-alone curricular programmes	26	9%
Perceived lack of content, lack of sequence or clear expectations regarding teaching of language and math skills, lack of depth in scope and sequence documents	24	9%
Stimulating genuine student-initiated action	24	9%
Managing assessment	25	9%
Leading or implementing the programme, including working with teachers who are resistant, changing attitudes or mindsets, building a shared philosophy, increasing commitment	24	9%
Time management, including time for collaborative planning, pacing, exploring units of inquiry in depth, fitting six units of inquiry into a year	20	7%
Essential elements, synthesizing the pieces, fulfilling all the expectations "Bringing all of the essential elements to life in the classroom was difficult at first."	19	7%
Documentation – quantity, clarity, changes, complexity, requirements	16	6%

Differentiation, including catering for students with learning needs	13	5%
Learning new vocabulary, becoming familiar with language of the PYP	14	5%

Figure 11: Most challenging aspects of PYP for respondents to understand and implement

Other challenges receiving mentions included working with English Language Learners or working in a bilingual programme, lack of guidance for Early Years practitioners, working meaningfully with the Learner Profile, educating parents about the PYP, and sourcing suitable resources to support the programme, in the absence of textbooks or schemes.

Figure 12 shows the sources used to help participants overcome their challenges with the programme.

What has helped/is helping you overcome these challenges?	# of respondents	Percentage
Collaboration with colleagues	101	36%
Formal professional development, including regional, in-school, and online workshops, non-PYP PD opportunities, including Lyn Erikson	51	18%
Time, experience, practice, experimentation, application	44	16%
Support from a school leader or PYP coordinator	23	8%
Seeing or hearing about examples in practice, observing others, sharing practice	14	5%
Personal professional reading, including referencing "Making the PYP Happen"	14	5%
Online communities or resources, including LinkedIn, Twitter, Opening Classroom Doors	9	3%

Figure 12: Factors that have helped respondents overcome challenges with the PYP

Once more, the significance of collaboration is highlighted, with respondents describing its power:

- … you have to constantly be looking for colleagues who are willing to collaborate, who want to form study groups, who open their classrooms for peer observations and peer mentoring and you have to mentor your way through towards better understanding

- … support from strong pedagogical leadership and teachers leaders has been vital.

- … recognise that most PYP teachers feel the same way and don't really know how to do it well, all the time… find people whose practice you admire, in whatever way, and collaborate, enhance, borrow, question, suggest.

Extent of change in teaching

Question 12 asked participants to rate the extent to which their teaching had changed as a result of their development as PYP educators. They could rate their response along a four-point continuum and the results (Figure 3) show an overwhelming indication that working with the PYP results in changed practice.
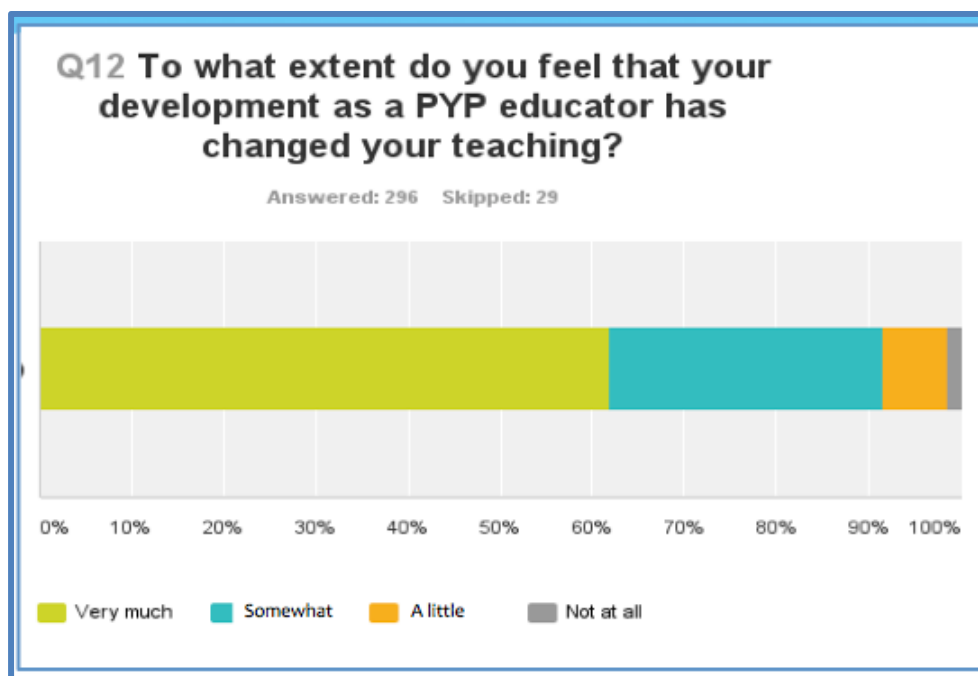

Figure 13: Extent of change in teaching due to PYP development

Six respondents used the word "everything" when answering this question, and others cited a range of significant changes in practice, shown in Figure 14 below.

Area of change in practice	% of respondents
teacher's role v student involvement	39%
use of inquiry-based methods	29%
a focus on conceptual understanding	18%
increased transdisciplinarity: making links between discrete subjects during teaching and learning; working more closely with stand-alone teachers to make transdisciplinary links	10%
new approaches to assessment	10%
Increased collaboration	9%
a focus on the attributes of the learner profile, attitudes, international-mindedness and global citizenship	8%
better differentiation with more focus on individual learners	7%
increased flexibility or creativity in teaching	6%
increased reflection on teaching	5%
increased collaboration with students,	3%
teaching to promote and support student action	2%

Figure 14: Areas of change in practice reported by respondents

Key themes connected to the change in the roles of both teacher and student included student-centred learning, active learning, and teacher as facilitator or guide. Many comments regarding the teacher's changed role suggested a sense of relinquishing control: "learning to give less and guide more", "more responsive", "focus on learning (not teaching)", and "loosened the reigns", The converse of this shift in the teacher's role is reflected by phrases indicated increased involvement by students: "students at the centre of the learning process", "giving the children more of a voice", "respects students as capable individuals", "guide students along their own paths of discovery", "to make students think deeply and globally", and "empowering students." These views echo the IBO's (2013a:4). description of the "open, democratic classrooms" aspired to.

Respondents who referred to increased collaboration reported changes including: planning together in a team; discussing and developing shared understandings with colleagues; developing transdisciplinary links with other teachers; and needing or having an "on-going willingness to learn." Closely related with collaboration was the category of planning, where 37 respondents indicated a significant change in practice. Working with the PYP planner, planning concept-based tasks, and using backwards design in planning were all mentioned along with collaboration in the planning process.

Analysis of focus group data

Focus group discussions were conducted at two PYP schools in Dar es Salaam. Focus Group A was made up of teachers from a school that caters to a very diverse and international student body, with international teachers from several countries serving the community. Focus Group B was held at a school that provides an internationally-minded curriculum primarily to local Tanzanian students and is staffed predominantly by Tanzanian teachers. A modified Nominal Group Technique was used, and each point raised was recorded. A brief analysis of the trends in the overall responses to each question follows below.

1: What recommendations would you make to the IB to improve their development and support of PYP educators?

- Financial implications of IB PD: Interestingly, the cost of IB workshops was a recurring theme in both focus groups, despite the economic differences of the two schools. School A has a generous PD budget, while school B's substantially lower fees present budgeting challenges for administrators. However, both groups highlighted the feeling that the cost of PYP workshops is often prohibitive. Focus Group A referred to a sense of elitism, which was a theme that also emerged from a number of survey responses, for example, one respondent said " I also feel that the programme is becoming too much of a business and less of a philosophical framework." Both groups had some creative ideas for use of finances, including a possible Robin-Hood style system of poorer schools paying less, as well as packaging workshops into enticing bargains.

- Access to IB PD: In the area of access, the two groups had somewhat different priorities. Focus Group B generally have more limited, or less reliable access to the internet, so their suggestions largely centred around making PD more available to those limited by their geographical location. Group A's priority seemed to be to reconsider use of online options – there was little enthusiasm for online workshops as they currently stand, but some creative ideas for using the online interface to deliver relevant and targeted content to educators on a needs basis. Both groups agreed that there should be options for shorter, more frequent workshops, focused on a more specific 'bite-sized' aspect of the programme. With regard to content of the workshops, both groups identified the possibility of revisiting some of the more fundamental workshops once teachers have had more experience. Survey respondents who reported feeling overwhelmed with their first encounter of the PYP also alluded to how much more they would understand if they were to take the "Making The PYP Happen" workshop again after working with the programme for a while.

- Use of expertise within the IB: Both groups identified the notion of enticing expert PYP educators to share their skills to support others, with suggestions regarding some kind of certification, as well as a mentoring programme for those new to the PYP.

2: What recommendations would you make to schools to improve their development and support of PYP educators?

- School's commitment to the PYP: The first theme to emerge from both groups was that of commitment demonstrated by the school, both to the PYP itself, and to funding, resourcing and supporting its implementation. A comment about commitment to the philosophy rather than the brand also echoes some comments from the survey regarding concern that some schools might be being authorised regardless of their commitment: "schools who are not really applying the IB ideas and are just trying to get the IB certificate…. You pay it, you get it." While this is an extreme and cynical view, others echo the importance of a united commitment within a school in order for implementation of the programme to be meaningful and effective: "…I perceive the PYP as too open for personal interpretation, making it crucial to have a faculty and admin that share the same constructs and interpretation of all the underpinning elements of the programme."

- Collaborative PD: Ideas for tapping into the power of collaboration featured in both groups' responses, with the notion of PLCs mentioned in both discussions. Group B's school has implemented a programme of PLCs to considerable positive effect, and all the focus group members spoke highly of the advantages of this model. Its role in building common understandings was highlighted, linking closely with the issue of commitment at school level. In School A, while there is no formal model for PLCs, focus group members referred to inquiry groups, committees and grade teams as groups where the school might better exploit opportunities to share practice, develop shared understandings, and support colleagues.

- Use of expertise: Both groups made mention of using local associations, external consultants and internal experts to make expertise available to staff in a variety of more creative ways. The theme of mentoring again arose in response to this question. Making better use of skilled teachers to share practice and support others emerged as a way for schools to better support PD, mirroring responses from the survey about a significant person (a mentor, a co-teacher, an administrator or a colleague) influencing their practice. The extra support needed for teachers new to the PYP was also acknowledged, as it was in survey responses: "I think in a lot of schools there needs to be more support or mentoring for teachers new to the PYP"

Focus group question 3: How can individuals take more control of their development as PYP educators?
Responses here included making connections with others, living the learner profile, and seeing easily available independent options to develop, including the free online workshop provider, Coursera, and the plethora of PYP related social media groups now available. The predominant theme that emerged echoed the IB's notions of lifelong learning and collaboration by seeking the support of others in one's learning journey, along with reference to an open attitude and self-motivation for continued learning.

Additional time at the end of Focus group B's discussion enabled me to hear their views on the question: **What factors have really helped you to change your practice?** Yet again, the theme emerged that a strong sense of shared purpose and collaboration within the school community was motivating each member to strive to continue to learn and develop as a PYP teacher. Influences mentioned included being guided by the Learner Profile and attitudes, self-reflection, working with like-minded teachers, appreciation, recognition and trust from colleagues and school leaders, a positive community spirit, and a sense of team commitment – if one person is stuck, it is everyone's responsibility to support them.

Discussion of findings

Challenge of the programme and extent of change required

One clear conclusion is that the PYP is perceived as complex and challenging to work with, and results in significant changes in teaching for many educators. In fact, complexity around the structure of the programme remains a challenge for many, even those familiar with and committed to the PYP. New vocabulary, becoming familiar with the essential elements and synthesizing the pieces to develop a coherent understanding, were all frequently identified as challenging.

The change in practice most frequently identified was that of the role of the teacher from expert to facilitator, focused on empowering students to be active and capable participants in their own learning: in one respondent's clever play on words, "I have gone from making it happen to letting it happen." Other areas where change was seen as necessary included changed assessment practices, increased differentiation, and a focus on international-mindedness and global citizenship. There was much mention of changed attitudes, including increased open-mindedness, a willingness to learn, and the need to embrace collaboration.

The focus groups' mention of repeating Level 1 workshops after teachers have worked with the programme for some time supports Guskey's (2002:383) conclusions regarding what comes first: a change in beliefs or a change in practice. Participants are exposed to the new philosophy of the PYP during their introductory workshop, but in fact *"it is not the professional development per se, but the experience of successful implementation that changes teachers' attitudes and beliefs. They believe it works because they have seen it work, and that experience shapes their attitudes and beliefs."* Once teachers' beliefs about the new pedagogy change, then their experience of PD connected with this will also change, as there is a decrease in scepticism and an increase in openness. One survey respondent said, "It takes practice and a change of mindset."

The challenge respondents most often cited was planning, specifically using the planner, alongside planning collaboratively. Using the PYP planner reflects the complex structure of the programme, incorporating the process of identifying a conceptual understanding, building knowledge, skills, attitudes and action around it in a coherent and transdisiplinary way, planning appropriate engagements, promoting student-led inquiry and action, and authentically assessing these aspects, all documented on a unit planner. It appears that the planner, which is intended as a tool for organising thinking, seems instead to be perceived as restrictive, prescriptive, inflexible and unwieldy. Both focus groups made reference to the complexity of the programme in their suggestions for the IBO to improve support to educators. Ideas included mini-tutorials, 'something' to help synthesize the pieces of the programme, and an increased variety of quicker, more targeted workshops on specific parts of the framework.

Planning collaboratively also featured heavily as a challenge: this requirement often presents practical and logistical challenges in schools, compounded by the complications of a group of people with different levels of understanding working with such a complex programme. However, as will be discussed later, this 'difficulty' is in fact a key component to successful implementation of the programme by individuals.

Aside from the complexity arising from the structure of the programme, respondents also identified core elements of the programme's philosophy as significant challenges; specifically, inquiry, concept-based learning, and transdiciplinarity. In many cases, using these approaches represented a significant shift from previous practices, and the values that underpinned them, for example, more standards-based curricula or mastery of discipline specific content. Many responses indicated that those grappling with these issues had not yet resolved them, with the challenge of aligning PYP with external or stand-alone curricular requirements featuring heavily as an on-going area of struggle for practitioners.

Generally, perceptions of the programme improved over time, with increased commitment appearing to

be connected to implementation and increased understanding. A significant proportion of respondents referred to learning on the job, experimentation and trying out various practices as key to their development, with an increased appreciation of its benefits as a side effect. It seems that positive perceptions of the programme in the initial stages were clearly connected to respondents finding resonance with previous experiences of good practice, based around similar beliefs and values as the PYP. Those whose attitudes improved over time confirmed Rozenholtz's assertion that *"teacher certainty and teacher commitment feed on each other"* (1989, in Fullan, 2011:126).

Impact of different types of PD experience

Data was analysed in response to the question 'What do IB PYP teachers consider to be the main factors influencing their development as PYP educators?' The range of experiences cited as contributing to PYP educators' development clearly support the literature describing PD as *"a complex process"* (Avalos, 2011:10) consisting of a variety of learning experiences both planned and *"natural"* (Day, 1999, in Hayden, 2007), that gain relevance when in *"context and the situatedness of teacher learning"* (Opfer & Peddar, 2011). Respondents without exception cited at least three different sources that had contributed either "very much" or "somewhat" to their development. Comments prefaced with "I learn best by…" gave a clear indication of learners' awareness of their personal style of learning and how that might differ from others, and confirmed that different combinations of types of PD are best for each individual.

From the menu of choices, formal PD offerings from the IBO fell into the mid-range, seeming to be helpful to many, but always in combination with other factors, supporting the view that *"packaged"* PD events do not suffice in isolation. (Fullan, 2001). IBEN workshop leaders are encouraged to ensure that PYP workshops model the pedagogy of the programme by engaging participants in active learning using instructional practices that can be transferred to the classroom. This approach supports Guskey and Yoon's (2009) findings describing the features of effective workshops. However, in isolation, workshops clearly have limitations, lending weight to the need to see PD as *"a process, not an event"* (Guskey 2002:388).

The source most universally influential on respondents' understanding of the PYP was 'learning on the job', an on-going activity that *"provides teachers with opportunities to adapt the practices to their unique classroom situations."* (Guskey & Yoon, 2009:496). As Elmore (2001:31) described,

> *"People make… fundamental transitions by having many opportunities to be exposed to the ideas, to argue them into their own normative belief systems, to practice the behaviours that go with these values, to observe others practicing those behaviours and, most importantly, to be successful at practicing in the presence of others (that is, to be seen to be successful)."*

The overwhelming number of references to experimentation, experience, implementation, practice and reflection, clearly support the necessarily job-embedded nature of PD for PYP educators. As one respondent put it, "… the classroom is the real testing ground of the theory that we learn at workshops… and to be able to apply it successfully, validates its authenticity, develop our own conviction and thereby, strengthening the understanding (sic)."

The other most identified source of influence over PYP educators' development was collaboration with colleagues, while other social, relational influences that scored significantly were PYP coordinator or other school leader, observing colleagues, and relationships with colleagues. The only social relational influence that did not score highly was a mentor, with more than half saying they had not had access to this influence. However, so many respondents cited collaboration with an influential person or with a group of colleagues that this could be seen as the most significant factor in learning and development for PYP educators, with a large majority citing this as helping them overcome challenges.

Both focus groups emphasised harnessing the power of relationship and collaboration in their suggestions for improving support to PYP educators. Ideas included recognising expert practitioners, and placing them in mentoring, coaching and support roles; facilitating PLCs both across the IB community and within schools; and building on the power of collaborative teams to share good practice. One focus group

described the powerful influence of PLCs within their school in developing common language and understanding, much as Kong and Sperandio (2013:6) found when describing shared vision as an indicator of success.

The low impact of online PD and other online options is possibly connected to the lack of an on-going collaborative relationship, as identified by Holmes et al (2010:83), citing *"the need for multiple forms of interaction to ensure… learning and success."* While as it stands, this format is not popular, focus group responses indicated an interest in more creative and flexible use of this tool, to facilitate *"just-in-time and sustained over-time"* learning. (Bolt, 2012:290)

It is worth considering the significance of comments regarding the influence of a particular individual over may participants' development. While in some cases, this was a leader or administrator who was in a position of authority, a number of respondents mentioned an inspirational person with whom they worked as impacting significantly on their practice. Yet in the survey, a very small number of respondents indicated that they had experienced a mentoring relationship. It may be that this is a powerful, yet untapped, source of PD that would prove reciprocally beneficial to both mentor and mentee. Respondents who are involved in the IB Educator Network reported that their learning was supported by their roles as workshop leaders or school visitors. "I strongly feel our school needs to appoint and place mentors in each grade level to support learning among teachers- when I have strong team members who bring new ideas and support the implementation of those ideas I learn more. It's not enough to talk about it, you need constant support to implement it."

Synthesis of influences on professional development of PYP educators

The data indicates that most of the experiences listed in the survey are useful in terms of developing PYP educators, but it appears that the interplay between these is where the learning for each individual occurs.

The data strongly suggests that the most effective balance between more or less formal types of PD, or between those that are collaborative or individual, will be a highly personalised experiment for each individual as they construct understanding, try out new practices, and establish or adapt their beliefs.

Figure 15 attempts to represent the PD influences a PYP educator has access to, the approach each is based on and the role and perception of the individual when accessing each. The three broad areas of influence are IBO delivered, school based, and individual PD. These involve exposure to different kinds of influence, including trained workshop leaders, peers and colleagues, school leaders, and external trainers, as well as print and online resources. Each presents a different experience for the learner, with the school providing the context in which to apply the learning.

The diagram demonstrates how almost all the key features of effective PD uncovered in the literature review are present simultaneously within the school context: supportive, job-embedded, instructional focus, collaborative, on-going, providing feedback, modelling, authentic learning tasks.
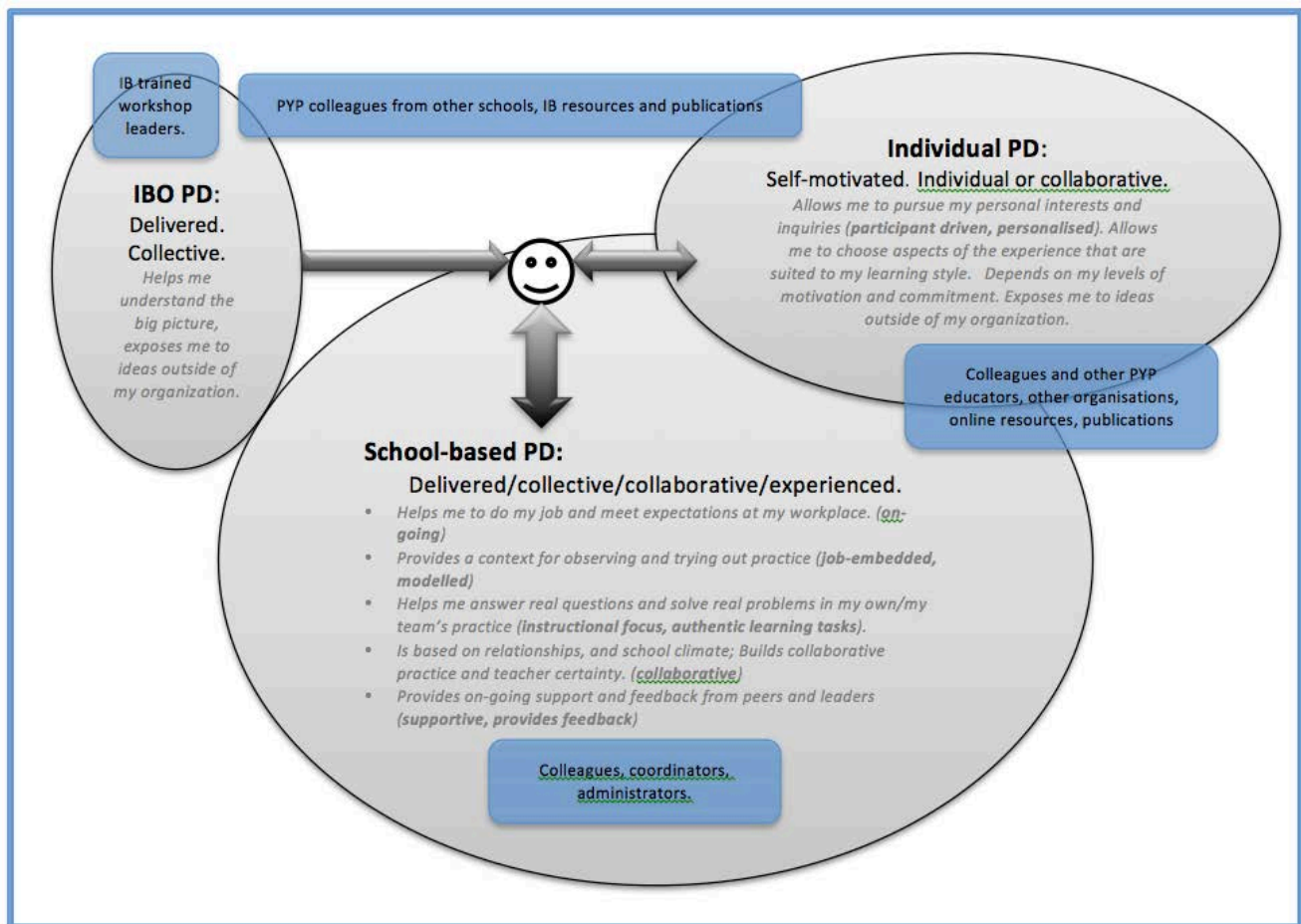
Figure 15: A synthesis of the factors influencing the professional development of PYP educators

While PD from the overarching organisation is essential for communicating the ethos and framework of the programme, it is by nature delivered collectively, with the individual as recipient of the designated information. As Powell (2000) and Fullan (2001) agreed, collective PD tends to be a one-way experience for the individual, who is required to take the material and apply it in their context. However, as Fullan (2001:255) suggests, follow up support within school is likely to be rare, and is certainly harder to provide coherently for individuals who have attended a variety of workshops. Guskey and Yoon (2000) found that the workshop model was most successful when opportunities to apply learning back in context were externally supported by experts, and again, this kind of follow-up is rare.

Collective PD does provide opportunities to interact with PYP colleagues from other schools and to become familiar with publications and other resources, but these are dependent on the individual's personal

motivation to seek and make best use of these. An important aspect of IB workshops is that they expose the learner to ideas outside of their organisation, the importance of which is suggested by Fullan (2001:265), and this can serve to bring perspective to their own context, or result in them questioning current practice, both of which are useful provocations for further learning. However, as Guskey (2002:382) argues, it is not the PD in itself, but the application, that promotes changes in beliefs and practices.

PD provided within the school can be collective in nature, for example when whole staff meetings are used to deliver material or when consultants are brought in. However, because it is received in the context of the collaborative team who will implement it, the material can continue to be active in terms of teams and individuals experimenting with and implementing what they have learned 'on the job'. It is only within the school that PD can become the *"process, not event"* that Guskey (2002:388) advocates. Schools are in the unique position of being able to plan and provide tailor-made, collaborative PD that addresses their specific context and goals. This harnessing of the collaborative power of the workplace would seem to be the single most influential PD experience for developing educators, as Fullan (2001:124) agreed.

> *"Significant educational change consists of changes in belief, teaching style, and materials, which can come about only through a process of personal development in a social context."*

Individual PD opportunities are actively sought by committed and self-motivated learners, who see the benefits of continuous learning for their practice: these educators often influence their colleagues and assume informal leadership roles within the school. Twigg's (2010:50) description of flexible and reflective practitioners who work collaboratively with students and teachers to "*'face up to the challenges' of a new way of working"* resonates here. Scott Peck (1987, in Sparks, 2002) described a ideal of decentralised authority in which everyone is a leader, and in a truly collaborative work culture, distributed leadership will promote on-going learning opportunities for all.

Those who are less motivated to drive their own learning and development are often passive within the context of organisational change, and some are active resistors. The school is in the unique position to influence and develop teachers regardless of their level of commitment to the programme or their self-motivation, and survey respondents often cited school structures or culture as helping or hindering their development. As James et al (2009) found, schools where a combination of a focus on the primary task, collaboration and reflective practice were the norm were generally more successful in terms of student achievement. A school which demonstrates clear and consistent commitment to effective implementation of the PYP (the primary task) and which actively promotes collaboration and reflection in connection with this primary task, would seem to hold a powerful influence over the development of educators who will have the ability and disposition to implement the programme effectively, supporting consonance and creativity simultaneously.

It seems clear then, that while the PD provided by the IBO is important in terms of introducing theory and philosophy, and independent learning is of value to those who are motivated, successful implementation must happen in context, and it is within schools where the necessary conditions for change in teachers can be found. Some respondents describe how their school culture hindered their understanding of or commitment to the programme, making clear that this context will not support change simply by chance. Guskey's *"systematic efforts"* (2002:381) are needed for schools to support the required changes in beliefs and practices that committed and reflective PYP educators identify.

Schools need to work actively to provide on-going, job-embedded opportunities to observe, model, discuss, reflect on and practice those instructional practices that support the primary task in a supportive, collaborative environment. These opportunities will lead to changes in beliefs, as well as increased commitment and certainty, and will result in changes in Elmore's (2000:31) '*dailiness'* of teaching and learning in PYP schools. The goal, or perhaps the result, will be Kong and Sperandio's (2014:6) "*sense of*

unity, coherence, common purpose and ownership of the programme among all stakeholder groups in the

school."

Summary of conclusions

The following conclusions were drawn in response to the research questions:

How do PYP educators change their views and practices over their time working with the programme?

- **Complexity of the programme:** The PYP is widely perceived as complex in structure and pedagogy. While views of the programme generally improve over time, some aspects remain challenging to educators, specifically the volume of new vocabulary, familiarity with the essential elements, and an ability to synthesise the pieces into a coherent whole.

- **Extent of change in practice:** Most educators report needing to make significant changes in practice to implement the PYP. The change in the role of the teacher from expert to facilitator is cited, along with its consequence, an increase in empowerment of students to become more active in their own learning. A required change in attitude is also often reported, with a need to be more open-minded, more willing to collaborate, and to be a lifelong learner. Other areas of significant change in practice include inquiry, transdisciplinarity, concept-based learning, and planning collaboratively using the PYP planner, along with a focus on international-mindedness and the Learner Profile.

- **Areas of challenge in working with the PYP**: Areas of challenge for educators include understanding and implementing central tenets of the programme's philosophy, such as inquiry, transdisciplinarity, and concept-based learning. Planning collaboratively and using the PYP planner are related challenges that educators continue to struggle with, and there is some indication that the tool devised to support and guide teachers through a reflective and collaborative planning process may be restrictive or hindering this process rather than supporting it.

What do IB PYP teachers consider to be the main factors influencing their development as PYP educators?

- Combination of types of PD most effective: All respondents cited at least three different types of PD as either very or somewhat influential, suggesting that the combination is significant for individual learners. Different combinations will suit those with different learning styles or needs. Formal and informal opportunities in combination appear to complement each other to influence PYP educators' development.

- Learning on the job and collaboration with peers: The informal opportunities for PD provided by learning on the job and by collaborating with colleagues are cited most frequently as influential to development. Collaboration and context-embedded practice and reflection are also frequently mentioned as the main support for overcoming challenges in implementing the programme.

- PD is most effective in context: Collaboration with colleagues and learning on the job are both opportunities situated in the context of schools. The school context therefore provides the most significant influence over the professional development of teachers, as it is able to provide context-embedded, on-going, collaborative experiences that support teachers in changing practices, and then beliefs.

Implications and recommendations

The following implications and recommendations can be derived from the research findings.

- Complexity of the programme: While much of the challenge educators found within the programme is connected to its complex pedagogy and ethos, many continue to find the complexity of the framework frustrating. During the upcoming review of the PYP, the IBO should consider eliminating any unnecessary,

overly complex vocabulary or structure; for example, the unit planner could be streamlined to better support the collaborative thinking needed to plan effectively.

- **Use of expertise and influence of individuals:** The influence of individuals was highlighted frequently in the data, both in terms of leadership and support. The IB's guidance to pedagogical leaders could be strengthened to require the planning of a sustained and effective approach to collaborative learning and shared or distributed leadership of the programme. The area of mentoring and coaching is also worth further exploration; by capitalising on the strengths of experienced practitioners, teachers new to the programme could be guided through a more personalised inquiry into their own practices and beliefs. This would be mutually beneficial, as described by the participants who cited teaching others as influential in their own development.

- **IB provision of in-school PD:** As the school context emerges as the most influential factor in programme development, consideration of a more consultative and flexible approach to the planning and delivery of in-school workshops by the IBO could ensure that schools target the areas that match their current focus and goals, as well as differentiate the experience for the needs of their particular learning community. The need for follow-up for the PD to be effective is clear, and guidance for planning appropriate follow-up tasks and opportunities would be beneficial to schools.

- **IB online PD opportunities:** The IBO's online workshop format will need continued development to become a significant PD influence for educators, but there is indication that online offerings such as social media are already influencing more independent learners. More exploration of how to combine the convenience of the platform with the essential element of real connection and collaboration with others is worthy.

- Guidance for collaborative planning: While the IBO's requirement for collaborative planning time is clear, what is not so clear is how best to ensure that this time is used profitably and to support teachers with the challenges they face in implementing the programme. Clear agendas, protocols to support analysis and reflection, monitoring and feedback all have the potential to improve the quality of collaborative planning, although what effective collaborative planning looks like might also be an area for further exploration.

- Collaborative practice, and learning on the job: The findings of this project go beyond the requirement of collaborative planning to clearly identify the power of collaboration and practice 'on the job' as the most influential factors for teachers' development. With extensive research already in the field of PLCs, what seems clear is that elements of a collaborative work culture are key in PYP schools to support teachers in transforming and continuing to develop excellent practice as PYP educators. The features of effective PD described in the literature review could form the basis of an in-school approach that systematically promotes effective development of its teachers (supportive, job-embedded, instructional focus, collaborative, on-going, providing feedback, strong leadership and administrative support, providing modelling, participant driven, somewhat personalised, authentic learning tasks, inquiry based). As Elmore (1997:2) summarised, good PD

> *"…focuses on concrete classroom applications of general ideas; it exposes teachers to actual practice rather than to descriptions of practice; it involves opportunities for observation, critique, and reflection; it involves opportunities for group support and collaboration; and it involves deliberate evaluation and feedback by skilled practitioners with expertise about good teaching."*

The term 'learning on the job' has not been adequately defined in this research, serving as a catch-all for experiences that happen in the 'dailiness' of school life that directly impact on what teachers think, believe and do to improve student learning. There is much to explore further in terms of which conditions, systems and features best support a collaborative work culture and a shared commitment to the programme.

- Influence of leadership: The influence of school and pedagogical leaders emerged in the data, and their responsibility to be proactive in developing PD that works is evident. The daily opportunities to learn with and from each other in schools will need deliberate planning and support by leaders, who have the significant task of building a culture of collaboration and a shared commitment to the programme. Every opportunity for collaboration within the school context should be planned and facilitated for maximum benefit. Structures for seeing, sharing and reflecting on practice need to be created, supported and embedded, so that the potential for learning on the job is fully exploited. The myriad of creative ideas for developing a community of learners and learning on the job (inquiry groups, study groups, professional conversations, professional learning communities, mentoring, and cognitive coaching, among many others) could usefully be further explored to identify those that best enhance teacher development and serve to facilitate the best possible learning and teaching in PYP schools.

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