

Using standardised assessment data to support IB programmes

by Gillian Ashworth

Gillian Ashworth, current head of school at Edubridge International School in Mumbai, India, holds two Masters degrees, including Educational Leadership and Management; along with a Certificate of International School Leadership, and a Diploma in Specific Learning Difficulties. Previous school experience across India, China, Azerbaijan, Africa, South America, Eastern Europe and her native UK has included roles as section principal and MYP/DP coordinators, while IB experience has encompassed leading online and face to face workshops, being a consultant and school visiting team leader, upskilling workshop leaders and school visitors across the globe, and MYP curriculum, assessment and workshop development work, including as a senior reviewer for the IB's Building Quality Curriculum service. Publications include 'Leadership for the MYP in Five Concepts', in *MYP – New Directions* (2016), 'The DP in India: context and challenges', in *Taking the DP Forward* (2011), and 'Articulating the Gap: the IB MYP and DP', in *Exploring Issues of Continuity: the IB in a wider context* (2013).



Assessment to plan and teach for all abilities

'Learning' within IB programmes takes various forms, with 'development of the whole child', creating 'active, caring learners', encouraging students 'to flourish physically, emotionally, intellectually and ethically', and preparing students 'to successfully navigate both higher education and employment' all featuring as areas of focus for the programmes.

<http://www.ibo.org/information-for-parents/>

Keeping track of such diversity of learning within an IB programme – and keeping it all on track – is a challenge therefore faced by all IB schools. How can we know how well our students are really progressing in all areas? How can we monitor their progress along the way, and continually provide effective strategies which will help them do better?

Assessment tools such as the *Cognitive Abilities Test (CAT4)*[®] and *The Pupil Attitudes to Self and School (PASS)*[®] survey can be valuable allies in the delivery of quality IB learning to students. Highly complementary to a variety of elements of the programmes, they can:

- provide insight into varied aspects of student cognitive and affective development which are targeted by IB programmes;
- produce rapid and actionable data and profiles for these;
- suggest targeted strategies to implement for further collective or individual progress;
- inform differentiation needs and practices;
- provide the means to monitor progress on a regular basis;
- encourage focused and productive data-based learning discussions among stakeholders.

CAT4 comprises a range of batteries which provide information in different areas of an individual student's thinking abilities, as follows:

- Verbal reasoning – thinking with words
- Numerical or quantitative reasoning – thinking with numbers
- Non-verbal reasoning – thinking with shapes
- Spatial reasoning – thinking with shape and space

Available for students of all age ranges covered by IB programmes, and straightforward to administer, this battery of assessments can quickly generate comprehensive data, both for student cohorts, and for individual students within those, on significant areas of cognitive capacity. *CAT4* thus represents an ideal accompaniment for IB programmes strongly underpinned by understandings and thinking skills.

Reports generated from the data gathered provide comprehensive profiles of student thinking (report example here: gl-education.com/cat4-group-report-for-teachers), along with possible implications of these for student learning, and suggestions for strategies. All of this supports teachers in planning for, building into unit planning, and delivering in the classroom targeted strategies and activities directly addressing further development of the thinking skills of the students in their classes, on an individual or collective basis as may be wished.

Data on student satisfaction with their school experience can help inform possible avenues to pursue in bringing about wider school improvement in certain areas.

Report data can also form a basis for focused teacher discussion and collaboration on development of thinking skills and teaching and learning approaches towards those, again addressing individual student or collective class needs as may be indicated. Thus this assessment can substantially inform overall subject and unit planning, and teacher collaboration, ensuring these are data-based, and can be adjusted as may be needed along the way; all in the best manner of the IB's principle of assessment for learning.

Meanwhile for many IB schools, proficiency in the language of instruction is an important factor. Assessments via *CAT4* is overall English language-based, but the nature of the non-verbal reasoning, quantitative reasoning and spatial ability assessments in not being language-based at all can for all students generate information on underlying cognitive capacity, which can be valuable for indicating expected progress in acquisition of the language, and in academic achievement in general.

The *PASS* survey is a short self-evaluation survey appropriate for students in all IB programmes, which can provide rapid insight into a range of potential obstacles to learning aside from cognitive skills. It is designed to measure nine factors associated with success in accomplishing key educational goals, including:

- students' feelings about themselves and their school,
- students' capacity and preparedness for learning;
- motivational factors.

Its provision for exploring possible issues which may arise in students around confidence, resilience, motivation, concentration, disaffection and alienation render it ideal for exploring in greater depth affective skills known to represent significant factors in learning, and which form a fundamental part of the approaches to learning framework in all IB programmes.

Schools too can become more aware of perceptions held of them by their students through data generated by use of the *PASS* survey. Data on student satisfaction with their school experience can help inform possible avenues to pursue in bringing about wider school improvement in certain areas.

The applicability of the *CAT4* and *PASS* assessments to students and schools within IB programmes is thus substantial and wide-ranging. Some further key points in relation to PYP, MYP and DP individually are summarized opposite:

Primary Years Programme (PYP)

Assessment in the PYP encompasses what students know, understand, can do, and feel over the course of their learning, and teachers are expected to gather and analyse information covering all of these areas, and use this to inform the practices involved in delivering the programme. Students themselves are expected to engage in self-assessment as part of PYP learning and assessment processes.

- As outlined above, the *CAT4* assessment can provide key information relating to the development of students' cognitive skills, and to what they understand and can do in cognitive terms. It can be further used to monitor these on a continuing basis.
- The *PASS* survey can provide data relating to attitude, confidence, motivation and so on – factors impacting on key areas of learning which the PYP aims to achieve, but where student levels may not be readily apparent on the surface. It can particularly address the need to assess what students feel over their learning experience in the programme.
- Data from the *CAT4* and *PASS* assessments can also inform planning, teaching and learning on an individual, collective and schoolwide basis, along with wider aspects of overall school improvement.
- Such data provides quantifiable evidence of learning in the different areas, facilitating more meaningful discussion between various parties – students, teachers, and parents included.
- The *CAT4* and *PASS* tools provide a systematic approach to gathering data which supports more precise and meaningful reporting; and to more targeted planning from there for further development.

Middle Years Programme (MYP)

Concepts and critical thinking infuse every aspect of the IB's programme for 11–16 year olds – a crucial developmental period for students in myriad ways. Academic demands are increasing, possible eAssessments may mark the programme's end, and post-MYP plans may beckon. In this age range and stage of development, meanwhile, socio-emotional welfare is a key consideration.

The MYP is thus a journey of discovery in very many ways, and one in which the *CAT4* and *PASS* assessments can provide valuable guidance and assistance:

- An increasing focus on academic achievement in the MYP may be greatly informed by feedback in the different areas covered by *CAT4*. Verbal and quantitative reasoning can indicate traditional 'academic ability' in students, while non-verbal and spatial tests – also significant predictors of educational attainment – are correlated strongly with aptitude for subjects such as mathematics, physics, and design. Again, report data and learning implication information can support planning, teaching and learning in a targeted way, and provide feedback on a range of approaches to learning skills within the cognitive categories and clusters of these.
- Data from the tests can also inform decisions on subject pathways, both within the MYP where choices may be required, and beyond. Such choices can have profound implications for future academic success, and career choices.
- In terms of socio-emotional welfare, *PASS* provides scope to delve into the socio-emotional undercurrents of MYP students, and explore in a meaningful way the influence these may be having on overall progress and development.
- Meanwhile in addressing aspects such as confidence, resilience, motivation, and concentration, the *PASS* assessment correlates strongly with the affective skills cluster of the approaches to learning programme, and generates feedback which can otherwise be more difficult to come by in the course of day to day teaching and learning. Its coverage further includes elements of social skills, providing for instance indications of students' needs and abilities to engage successfully in cooperative and collaborative learning.
- The assessment further encourages students' development as independent learners – a key aim of the MYP, and of the approaches to learning programme in particular – as they engage in exploring their perceptions of their own 'self-efficacy', and consider such aspects as their own levels of self-confidence and motivation. This correlates especially strongly with the 'reflection' skill cluster within the approaches to learning framework.

Diploma Programme (DP)

While the Diploma Programme continues to pursue holistic development, exam results and future college and career pathways inevitably form a greater focus for students and teachers alike. The introduction of approaches to learning into the DP, however, reflects the continuing importance of self-management, affective and social skills in learning and academic achievement, alongside cognitive capacity. In all that students try to achieve at this level, the *CAT4* and *PASS* tools can support and help maximize success in a number of ways:

- Cognitive skills such as information-processing and thinking skills lie at the heart of academic success within the DP. *CAT4* can also provide at this level invaluable specific feedback on students' different cognitive capabilities throughout the programme, enabling teachers and students to identify greater and lesser strengths and adopt strategies for improvement throughout the programme.
- Data may again facilitate more informed subject choices, and levels of those, to pursue throughout the programme. The IB advises that 'The subjects chosen should allow [students] to demonstrate their strengths and empower them as learners'*: use of *CAT4* and *PASS* can provide valuable information on what those strengths may be.
- Data may similarly inform discussion on college courses and careers: non-verbal and spatial abilities are, for instance, correlated strongly with careers such as engineering.
- The *PASS* survey at DP level can be a valuable aid in monitoring and helping develop metacognitive and affective skills known to play an important role in educational achievement. Stressful DP years which culminate in final high stakes examinations bring with them a need for resilience, perseverance and self-motivation, and effective behavioural and emotional management, on the parts of students. The formal introduction of approaches to learning into the DP acknowledged the crucial importance of such skills; and the *PASS* offers the means to assess their status within students, and to guide and encourage their future development in whatever way may be needed.
- The *CAT4* and *PASS* assessments may also form part of a screening process for potential assessment access arrangements a student may need in final DP examinations. Used at the outset of the programme, they may help in identifying early on where further investigation should take place to determine possible needs both throughout the programme and in final examinations, such as additional time, use of a reader, or a learning aid. Both assessments may provide data which can significantly aid schools in meeting the IB requirement that such arrangements are 'carefully individualized, planned, evaluated and monitored'*.

*International Baccalaureate Organization – Candidates with assessment access requirements (2017) (Cardiff)

Summary

The value of using data meaningfully in school to enhance student learning is increasingly recognized. In the *CAT4* and *PASS* assessments schools may find highly valuable and reliable partners in their mission to ensure quality of their IB programmes, and in all aspects of the learning students seek to achieve within those.

With thanks and appreciation to Gillian Ashworth, Education Consultant, IB Educator, and Principal of Edubridge International School for the research and writing of this article.

