

What is the PYP perspective on assessment?

Assessment is integral to all teaching and learning. It is central to the PYP goal of thoughtfully and effectively guiding students through the five essential elements of learning: the acquisition of knowledge, the understanding of concepts, the mastering of skills, the development of attitudes and the decision to take action. The prime objective of assessment in the PYP is to provide feedback on the learning process. All PYP schools are expected to develop assessment procedures and methods of reporting that reflect the philosophy and objectives of the programme.

Assessment involves the gathering and analysis of information about student performance and is designed to inform practice. It identifies what students know, understand, can do, and feel at different stages in the learning process. Students and teachers should be actively engaged in assessing the students' progress as part of the development of their wider critical-thinking and self-assessment skills.

Teachers need to be mindful of the particular learning outcomes on which they intend to report, prior to selecting or designing the method of assessment. They need to employ techniques for assessing students' work that take into account the diverse, complicated and sophisticated ways that individual students use to understand experience. Additionally, the PYP stresses the importance of both student and teacher self-assessment and reflection.

Everyone concerned with assessment, including students, teachers, parents and administrators, should have a clear understanding of the reason for the assessment, what is being assessed, the criteria for success, and the method by which the assessment is made. The entire school community should also be concerned with evaluating the efficacy of the programme.

Programme **evaluation** contributes to the continuing improvement of the overall programme. Student performance is assessed in accordance with the programme standards and practices, the overall learning outcomes and the subject-specific overall expectations. It also provides information used to inform members of the school community and others of the success of the programme.

The PYP approach to assessment recognizes the importance of assessing the process of inquiry as well as the product(s) of inquiry, and aims to integrate and support both. The teacher is expected to record the detail of inquiries initiated by students in order to look for an increase in the substance and depth of the inquiry. The teacher needs to consider:

- if the nature of students' inquiry develops over time—if they are asking questions of more depth, that are likely to enhance their learning substantially
- if students are becoming aware that real problems require solutions based on the integration of knowledge that spans and connects many areas

- if students are demonstrating mastery of skills
- if students are accumulating a comprehensive knowledge base and can apply their understanding to further their inquiries successfully
- if students are demonstrating both independence and an ability to work collaboratively.

The assessment component in the school's curriculum can itself be subdivided into three closely related areas.

- **Assessing**—how we discover what the students know and have learned.
- **Recording**—how we choose to collect and analyse data.
- **Reporting**—how we choose to communicate information.

Assessing: how do we discover what students have learned?

Student learning is promoted through planning and refining the teaching and learning process to meet individual or group needs. Assessing the students' prior knowledge and experience as well as monitoring their achievement during the teaching period will enable teachers to plan and refine their teaching accordingly. Teachers should bear in mind that a well-designed learning experience will provide data on students' knowledge, skills and conceptual understanding, and is consequently a vehicle for summative or formative assessment.

Summative assessment aims to give teachers and students a clear insight into students' understanding. Summative assessment is the culmination of the teaching and learning process, and gives the students opportunities to demonstrate what has been learned. It can assess several elements simultaneously: it informs and improves student learning and the teaching process; it measures understanding of the central idea, and prompts students towards action.

Formative assessment provides information that is used in order to plan the next stage in learning. It is interwoven with learning, and helps teachers and students to find out what the students already know and can do. Formative assessment and teaching are directly linked and function purposefully together. Formative assessment aims to promote learning by giving regular and frequent feedback. This helps learners to improve knowledge and understanding, to foster enthusiasm for learning, to engage in thoughtful reflection, to develop the capacity for self-assessment, and to recognize the criteria for success. There is evidence that increased use of formative assessment particularly helps those students who are low achievers to make significant improvements in their understanding.

Assessment in the classroom will include:

- using representative examples of students' work or performance to provide information about student learning

- collecting evidence of students' understanding and thinking
- documenting learning processes of groups and individuals
- engaging students in reflecting on their learning
- students assessing work produced by themselves and by others
- developing clear rubrics
- identifying exemplar student work
- keeping records of test/task results.

After any assessment is complete, it is important to ask further questions such as the following.

- Have the tasks provided ample information to allow a judgment to be made about whether the purposes or objectives have been met?
- What does the students' performance reveal about their level of understanding?
- Have any unexpected results occurred?
- What changes should be made in the assessment procedure?
- How should the teaching and learning process be modified as a result of the assessment?

Effective assessments

The following criteria for effective assessments are applicable to both formative and summative assessment.

Effective assessments allow students to:

- share their learning and understanding with others
- demonstrate a range of knowledge, conceptual understanding and skills
- use a variety of learning styles, multiple intelligences and abilities to express their understanding
- know and understand in advance the criteria for producing a quality product or performance
- participate in reflection, self- and peer-assessment
- base their learning on real-life experiences that can lead to further inquiries
- express different points of view and interpretations
- analyse their learning and understand what needs to be improved.

Effective assessments allow teachers to:

- inform every stage of the teaching and learning process
- plan in response to student and teacher inquiries

- develop criteria for producing a quality product or performance
- gather evidence from which sound conclusions can be drawn
- provide evidence that can be effectively reported and understood by the whole school community
- collaboratively review and reflect on student performance and progress
- take into account a variety of learning styles, multiple intelligences and abilities including different cultural contexts
- use scoring that is both **analytical** (separate scores for different aspects of the work) and **holistic** (single scores).

Effective assessments allow parents to:

- see evidence of student learning and development
- develop an understanding of the student's progress
- provide opportunities to support and celebrate student learning.

Further considerations for assessing the learning of young students

The assessment of the development and learning of young students is an essential component of the curriculum, and helps to inform continued development, learning and teaching. Students should be observed in a variety of situations, and a wide range of assessment strategies should be implemented. The teacher observes the young student in order to:

- build up a clear picture of the student and his or her interests
- identify what and how the student is thinking and learning
- assess the effectiveness of the environment on the student's learning
- extend the student's learning.

When observing, the teacher should record what the students say. By listening carefully to the dialogue between students, especially in dramatic play, the teacher can learn about their current interests, knowledge base, level of involvement and social skills. The teacher should share these observations with the students, with colleagues and with parents to know better the inner world of the student, analyse the interactions within a group, discover the student's strengths and difficulties, and reflect on the effectiveness of the practices used to implement the programme of inquiry and other classroom experiences.

It is important to identify the needs of each student and to view learning as a continuum, with each student achieving developmental milestones in different but relevant ways. Through listening and observing, areas of learning that the students particularly enjoy can be identified, and stimulating experiences can be planned to consolidate or extend the learning further.

Recording: how do we collect and analyse the data?

Assessment strategies and tools form the basis of a comprehensive approach to assessment and represent the school's answer to the question "How will we know what we have learned?"

The strategies are the methods or approaches that teachers use when gathering information about a student's learning. Teachers record this information using a variety of tools, which are the instruments used to collect data.

When choosing appropriate strategies, it is important to take into consideration which tools are most applicable and relevant to that strategy. This helps to ensure that an effective assessment of the learning experience takes place. A variety of strategies and tools should be used (see figure 15).

Assessment strategies and tools					
Assessment tools Assessment strategies	Rubrics	Exemplars	Checklists	Anecdotal records	Continuums
Observations	✓		✓	✓	✓
Performance assessments	✓	✓		✓	✓
Process-focused assessments	✓		✓	✓	✓
Selected responses		✓	✓		✓
Open-ended tasks	✓	✓		✓	✓

Figure 15

Strategies

The strategies in figure 16 have been identified as central to the assessment process. They cover a broad range of approaches, from the more subjective and intuitive to the more objective and scientific. It is essential that they be seen as a package since they have been selected in order to provide a range of approaches and therefore to provide a balanced view of the student.

Assessment strategies	
Observations	All students are observed often and regularly, with the teacher taking a focus varying from wide angle (for example, focusing on the whole class) to close up (for example, focusing on one student or one activity), and from non-participant (observing from without) to participant (observing from within).
Performance assessments	The assessment of goal-directed tasks with established criteria. They provide authentic and significant challenges and problems. In these tasks, there are numerous approaches to the problem and rarely only one correct response. They are usually multimodal and require the use of many skills. Audio, video and narrative records are often useful for this kind of assessment.
Process-focused assessments	Students are observed often and regularly, and the observations are recorded by noting the typical as well as non-typical behaviours, collecting multiple observations to enhance reliability, and synthesizing evidence from different contexts to increase validity. A system of note taking and record keeping is created that minimizes writing and recording time. Checklists, inventories and narrative descriptions (such as learning logs) are common methods of collecting observations.
Selected responses	Single occasion, one-dimensional exercises. Tests and quizzes are the most familiar examples of this form of assessment.
Open-ended tasks	Situations in which students are presented with a stimulus and asked to communicate an original response. The answer might be a brief written answer, a drawing, a diagram or a solution. The work, with the assessment criteria attached, could be included in a portfolio.

Figure 16

Tools

The assessment strategies listed in figure 16 may be put into practice using the assessment tools in figure 17.

Assessment tools	
Rubrics	An established set of criteria for rating students in all areas. The descriptors tell the assessor what characteristics or signs to look for in students' work and then how to rate that work on a predetermined scale. Rubrics can be developed by students as well as by teachers.
Exemplars	Samples of students' work that serve as concrete standards against which other samples are judged. Generally there is one benchmark for each achievement level in a scoring rubric. Each school is encouraged to set benchmarks that are appropriate and usable within their particular school context.
Checklists	These are lists of information, data, attributes or elements that should be present. A mark scheme is a type of checklist.
Anecdotal records	Anecdotal records are brief written notes based on observations of students. "Learning stories" are focused, extended observations that can be analysed later. These records need to be systematically compiled and organized.
Continuums	These are visual representations of developmental stages of learning. They show a progression of achievement or identify where a student is in a process.

Figure 17

These assessment tools may be used in conjunction with other forms of assessment, such as standardized tests, in order to assess both student performance and the efficacy of the programme.

The IBO position on standardized achievement tests

While the IBO does not administer or encourage the use of standardized achievement tests, it recognizes that there may be a local, state or national requirement concerning the use of such tests for many IB World Schools. Some other IB World Schools, not subject to these requirements, do choose to use commercially available tests in order to measure their students' performance over time, in areas defined by the test but not directly linked to the learning defined in the academic programme. When standardized achievement tests are an option, administrators and teachers should carefully consider:

- the relevance of the test to the cohort of students within the school
- the relationship between what is being tested and the school's programme
- the impact of testing on teaching and learning
- the usability of the data produced.

Documentation

The documentation of the evidence of student learning is an assessment strategy relevant to all students throughout the PYP, but may be particularly significant in the early years (3–5 years). Teachers use a range of methods to document student learning as a means of assessing student understanding. This may include, but is not limited to, videos, audio, photographs and graphic representations.

Teachers may also use written records of student conversations, comments, explanations and hypotheses as well as annotated pieces of student work that may form part of a student's portfolio.

Portfolios

Schools have a responsibility to show evidence of student learning. As an example, portfolios are one method of collecting and storing information that can be used to document and assess student progress and achievement.

A portfolio is a record of students' involvement in learning which is designed to demonstrate success, growth, higher-order thinking, creativity, assessment strategies and reflection. A portfolio is a celebration of an active mind at work. It provides a picture of each student's progress and development over a period of time both as individual and group learners. It enables students to reflect with teachers, parents and peers in order to identify their strengths and growth as well as areas for improvement, and then to set individual goals and establish teaching and learning plans.

Evidence of learning in a portfolio should be from a range of experiences and curriculum areas. The portfolio is used to show the development of knowledge, conceptual understanding, transdisciplinary skills, attitudes and the attributes of the learner profile over a period of time. It may also be used to document student action. Portfolio entries should document both the process of learning and the product, including images and evidence of students in the process of constructing meaning. It can be used as a tool for assessment and reporting purposes for students, parents, teachers and administrators.

How does it work?

Schools using portfolios will need to develop agreements for their use. Things to consider are:

- the criteria for selecting pieces of work
- who will select the pieces of work

- what will accompany the selected pieces of work (for example, self-assessment, reflections, assessment tools, teacher comments)
- how to establish what is to be included and what will be removed
- when and how portfolios are to be used (for reporting purposes, student-led conferences, parent–teacher interviews, report writing)
- the format the portfolios will take (for example, electronic, binder, folder)
- where the portfolios will be housed
- who has access to the portfolios
- who the portfolio ultimately belongs to
- how the portfolios will move with the students.

Reporting: how do we choose to communicate information about assessment?

Reporting on assessment is about communicating what students know, understand and can do. It describes the progress of the students' learning, identifies areas for growth, and contributes to the efficacy of the programme. Assessment without feedback is merely judgment; feedback is the component of assessment that lets us interpret the judgment and improve our work. Reporting is perhaps the most public aspect of a school's assessment policy, and as such needs careful consideration in order to provide clear information that is useful to students and parents. Reporting may take many forms including conferences and written reports.

Effective reporting should:

- involve parents, students and teachers as partners
- reflect what the school community values
- be comprehensive, honest, fair and credible
- be clear and understandable to all parties
- allow teachers to incorporate what they learn during the reporting process into their future teaching and assessment practice.

Schools are required to report on each student's development according to the attributes of the learner profile. However, this feedback does not need to be included on a report card, and teachers do not need to report on each attribute at the end of every reporting period. It is not appropriate to grade or score the attributes of the learner profile.

Opportunities should be provided for students to consider their progress in relation to the attributes listed in the IB learner profile in the context of student learning. Observations and anecdotal records of their own performance could be included in

each student's portfolio of selected work. The student could also contribute to reporting to parents, through the report card and/or student-led conferences.

The issue is that the parents need to know about the learner profile and that the school community attaches the utmost importance to it, such that it influences the valued practices and cultural norms within the school. This is also an example of the process being more important than the product, and of the student's role in the process being strengthened and made clear.

Conferences

The purpose of conferences is to share information between teachers, students and parents. A school should determine the function of conferences in order to develop their structure, and this might include goal setting. These conferences may take a formal or informal structure.

The following structures may be used.

Teacher–student

These are designed to give students feedback so they can reflect on their work and further refine and develop their skills. It is important that these individual conferences occur frequently in order to support and encourage the student's learning and teacher planning.

Teacher–parent(s)

These are designed to give the parents information about the student's progress development and needs, and about the school's programme. Teachers should take this opportunity to gather background information, to answer the parents' questions, to address their concerns, and to help define their role in the learning process. The parents should take the opportunity to provide the teacher with the cultural context of the student's learning.

Student-led

Student-led conferences involve the student and the parent. The students are responsible for leading the conference, and also take responsibility for their learning by sharing the process with their parents. It may involve students demonstrating their understanding through a variety of different learning situations. There may be several conferences taking place simultaneously.

The conference will involve the students discussing and reflecting upon samples of work that they have previously chosen to share with their parents. These samples have been previously selected with guidance and support from the teacher, and could be from the student's portfolio. The student identifies strengths and areas for improvement. It enables parents to gain a clear insight into the kind of work their child is doing and offers an opportunity for them to discuss it with their child. The conferences must be carefully prepared, and time must be set aside for the students to practise their presentations. The format of this conference will depend

on the age of the student and all of the participants must understand the format and their roles prior to the conference.

Three-way

Three-way conferences involve the student, parents and teacher. Students discuss their learning and understanding with their parents and teacher, who are responsible for supporting the student through this process. Students are responsible for reflecting upon work samples they have chosen to share, that have been previously selected with guidance and support from the teacher and could be from the student's portfolio. The student, parents and the teacher collaborate to establish and identify the student's strengths and areas for improvement. This may lead to the setting of new goals, with all determining how they can support the achievement of the goals. The teacher is an integral part of the process and takes notes of the discussion. These notes may then be used in the written report. All of the participants must understand the format and their roles prior to the conference.

The written report

Written reports are seen as a summative record for students, parents and the school itself of a student's progress. Nonetheless, the formative potential of an effective reporting procedure should not be overlooked. Reports that clearly indicate areas of strengths, areas for improvement, and where students are involved in providing input (through self-assessment), are helpful aids to a student's development.

The reporting system and procedures of a PYP school should reinforce the underlying values of the programme. Many schools will be subject to local requirements that include standardized reports or formats that may not reflect PYP objectives and assessment criteria. In such cases, schools are expected to devise additional forms of reporting that take into account the assessment model of the PYP and provide a clear indication of the student's progress with reference to the learner profile.

There are no specific formats preferred by the IBO for reports, but the following points may prove useful in formulating a reporting system.

1. The learner profile is addressed.
2. The transdisciplinary units and the subject-specific teaching are included.
3. All teachers involved in the student's progress have an opportunity to comment.
4. All the essential elements of the programme are included.

Examples of schools' report card templates can be found on the OCC.

The exhibition

In the final year of the PYP, students participate in a culminating project, the PYP exhibition. This requires that each student demonstrates engagement with the five essential elements of the programme: knowledge, concepts, skills, attitudes and action. It is a transdisciplinary inquiry conducted in the spirit of personal and shared responsibility, as well as a summative assessment activity that is a celebration as students move from the PYP into the middle years of schooling. For further information and guidance on the exhibition, refer to *PYP exhibition guidelines* (2004).

The exhibition represents a significant event in the life of a PYP school and student, synthesizing the essential elements of the PYP, and sharing them with the whole school community. It is an opportunity for students to exhibit the attributes of the learner profile that have been developing throughout their engagement with the PYP.

In the students' final year of the PYP, which occurs in some schools at 10–11 years old and in others at 11–12 years old, there are five units of inquiry and the exhibition. The exhibition unit takes place under any transdisciplinary theme at the discretion of the school. Students are required to engage in a collaborative, transdisciplinary inquiry process that involves them in identifying, investigating and offering solutions to real-life issues or problems. The central idea selected must be of sufficient scope and significance to warrant a detailed investigation by all students.

The PYP exhibition has a number of key purposes including the following.

- For students to engage in an in-depth, collaborative inquiry
- To provide students with an opportunity to demonstrate independence and responsibility for their own learning
- To provide students with an opportunity to explore multiple perspectives
- For students to synthesize and apply their learning of previous years, and to reflect on their journey through the PYP
- To provide an authentic process for assessing student understanding
- To demonstrate how students can take action as a result of their learning
- To unite the students, teachers, parents and other members of the school community in a collaborative experience that incorporates the essential elements of the PYP
- To celebrate the transition of learners from primary to middle/secondary education

As the culminating PYP experience, it is required that the exhibition reflects all the major features of the programme. Therefore, it must include regular and carefully planned assessment.

This assessment should take two forms: firstly, ongoing assessment of each individual student's contribution to and understanding of the exhibition; secondly, a summative assessment and reflection on the event itself.

Assessment of the exhibition takes place within the school. It should take place throughout the whole process of the exhibition and should be rigorous. The IBO seeks to ensure the integrity of the PYP without formally monitoring internal assessment or conducting external examinations. Schools may find it helpful to refer to the exhibition rubric in the *PYP exhibition guidelines* (2004), which is based on standard D2 of the *IBO Programme standards and practices* (2005), as a guide to assessing their exhibition.

Teachers will find samples of how schools have engaged in the exhibition, together with further guidance for the exhibition, on the OCC.

A school's assessment policy

There is a written assessment policy in place that is available to all sections of the school community.

Programme standards and practices: C4.1, IBO (2005)

An assessment policy reflects the school's philosophy and position on assessment. Developing an assessment policy is often the catalyst for schools to focus on their philosophy for assessment and to achieve a common understanding of their aims and objectives.

An assessment policy is a written document that aims to clarify teachers' understanding of the whole assessment process within their school setting. It is not a static document but one that is constantly evolving to reflect the assessment needs of the school. Collaborative reflection is a key component of developing an assessment policy, and must involve both teaching staff and administrators.

Once an assessment policy has been developed and agreed upon, it will apply across the whole school. A clear assessment policy needs to be established in the school and communicated to students and parents. It will include the following.

- Purpose for assessment (What and why do we assess?)
- Principles of assessment (What are the characteristics of effective assessments?)
- Assessment practice (How do we assess?)

When creating an assessment policy, schools need to keep in mind the overall value of the collaborative process that the school community will go through. The most important thing is the collaboration that must take place within a school in

order to create an assessment policy. Although producing a written document is the intended outcome, it is the collaborative nature of the process and the associated discussions that are of most value. By involving those with a vested interest, the assessment policy then truly reflects the school's philosophy. A system should also be put in place to allow regular reviews of the assessment policy.

The following questions can be used to assist a school to establish an assessment policy.

- What is the school's philosophy of assessment?
- How is the school's philosophy of assessment aligned to its mission statement?
- What practices will be agreed upon in order to fulfill this philosophy?
- What are the purposes of assessment for all the components of the school community (students, teachers, parents, administrators)?

Schools will find it helpful to develop agreed assessment practices as a part of their assessment policy. These are practices that are put into place within the school that address how the school assesses, records and reports student progress.

The following questions can be used to help a school establish agreements on assessment.

- How should we structure assessment?
- How often should we assess?
- What do we assess?
- Who is responsible for assessment and how?
- How should assessment information be recorded?
- How should assessment information be analysed and reported?
- How will assessment information be reported to students and parents?
- Who will have access to assessment information and where will it be located?
- How often will we review our assessment practices?
- Are there any mandatory requirements that must be satisfied?