# Assessment Theory and Practice

## Characterisations and processes

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With a practical appendix by Sven Saar

*(assembled by Sven Saar**, swipp.org.uk**)*

**Classroom assessment** refers to assessment in which the judgements about what gets assessed and how it gets assessed and the criteria being used and what consequences the assessment may have for the students are made by those who teach the students (Black and Wiliam, 2018).

**Summative assessment** makes judgements about whether outcomes have been achieved. This kind of assessment can be used to establish if a student has completed a task successfully and has learned what was required. It usually occurs at the end of a period or block of learning before a new stage or phase starts. It is often formalized by paper and pen tests with clear criteria for achievement, though it can be verbal. It requires a judgement based on evidence as to whether a pupil has achieved what they set out to achieve. This assumes that there is *a baseline of criteria defining what pupils are supposed to achieve*. In many schools, summative assessment is most commonly used for purposes of accountability to external bodies, e.g. by highlighting how many students pass exams at certain levels.

This often affects the status of the school. Summative assessment can also be based on the outcomes of a series of episodes of learning collected in a portfolio.

**Formative assessment** is process-orientated. It includes the monitoring of the ongoing learning process of individuals and groups and it is used to make adjustments to the learning process. It is concerned with how learning occurs and is either informally or formally noted by the teacher or is used to provide feedback to students. Knowing how pupils are learning, what difficulties they may have, what they can do well enables teachers to offer the right kind of support at the right time and provides the teacher essential information about the effects of her teaching. Therefore, formative modes of assessment are used to accompany learning processes and give individual pupils ongoing and concrete feedback.

It is important that pupils understand in age-sensitive and language appropriate ways what the learning aims are and what criteria will be applied to assess a particular assignment of block (what Americans call rubrics), how to achieve them and how they are currently doing. This can be done verbally at the start of a block or for older pupils it can also be provided in writing so they can refer to it. **Teachers use informal and formal formative assessment in their ongoing lesson reviewing and planning processes.** Taras (2005) argues that *all forms of feedback require some kind of implicit, explicit, formal or informal judgement that is by definition summative and that therefore formative assessment is actually summative assessment plus feedback*.

**Ipsative-referenced assessment** Ipse is Latin for self, therefore ipsative means self-referenced, so a pupil's performance is assessed against their own prior performance. This means assessment is relative to the person. The same summative achievement might mean a great improvement and effort for one person or the result of little effort and no improvement for another. Ipsative assessment is a way of individualizing feedback to the person, taking that person's whole situation into account. It means the student is not competing against others but with herself. The pupil asks, "can I do better than last time? Can I improve on what I have achieved so far?" Ipsative assessment gives the individual an answer to this question. Ipsative methods are used in one-to-one pedagogical conversations, both

informal and formal, in which the learner is helped to recognize her own progress measured against her own previous achievements and levels of participation. Thus the pupil has the feeling that she is not competing with others or external standards but it trying to do better, or maintaining her own standards.

Children and young people undergo all manner of developmental crises prompted from outside or through changes in themselves and this often impacts on school learning. They need to be helped to see what these causes and symptoms are, recognize the effect they are having on them, rather than having the feeling "I am too stupid" or "it's the teacher's fault that I don't get it". Then they can find ways of moving on with the help of the teachers.

**Competency-based learning** (synonyms: outcome-based learning, standards-based learning, proficiency-based learning) is learning that focuses on mastery of knowledge and skills. Competence or proficiency are usually determined by testing in which a minimum score is required to be deemed proficient. Competencies are usually defined as sets of attributes, behaviours, areas of knowledge, skills and abilities as predictors of performance.

Competencies are more general than learning outcomes and usually cannot be measured exactly. They often refer to different domains of learning, such as content, method, social of self-competences. Diagnostic assessment can be used to identity whether individual pupils need support and as a basis for a judgement what kind of help is necessary and available. Diagnostic assessment is sometimes associated with a focus on problems and deficits.

**Feedback** is information about a task or ongoing process that links what is understood and can be done with what is being aimed at. It can be a powerful influence on learning behaviour when it helps the learner take the next step, through motivation, showing specific aspects of the learner's work that can be improved in relation to her own performance. However, as John Hattie (2012) points out, *the most powerful feedback is from the student to the teacher and the teacher can synchronize teaching and learning*.

Everyone has to learn how to give and receive feedback. It requires a particular school culture that encourages **learning from mistakes and taking pride in improvements** and works in an atmosphere of mutual trust. Hattie and Clarke (2019) offer the following key points for optimizing feedback:

- feedback needs to relate to whether the learning is at surface, deep or transfer levels,
- feedback should focus on possible improvements,
- learner dispositions are vital for feedback to be effective because how they respond to feedback is vital, for example they need to be disposed to learning from feedback and disposed to improve their work,
- effective feedback requires a trusting relationship between teacher and student,
- feedback should avoid comparison with other students,
- praise can detract from the actual need to improve,
- prior knowledge is the starting point for feedback,
- goals should be specific, known to the students (and where possible co-constructed) and tasks easy to comprehend,
- feedback should aim to close the gap between current and intended learning,
- feedback goes in both directions; from teacher to student and student to teacher,
- the more meaningful the context, the more this strengthens learning: spaced learning (including forgetting) is more effective than massed learning

**Learning dispositions** are a set of habits of mind, ways of seeing and thinking that have been embodied and shape the way people learn, such as

resilience (e.g. ability to learn from mistakes),

ability to ask relevant questions,

collaborative learning,

playfulness and resourcefulness and

the ability to improvise.

Learning dispositions are not only attributes of people but of learning situations that enable and call for these qualities. Assessment for learning prompts learning dispositions, particularly learning narratives.

**Learning objectives** (synonyms academic benchmarks, expectations, learning targets, performance indicators, rubrics). Objectives specify what students should learn within a given timeframe (from lesson to school year). **Learning outcomes** are what students have actually learned. A learning outcome can be precisely defined and measured. Sometimes the term learning outcomes refers to the learning objectives. It must recognised that *some aspects of learning are difficult to observe*, such as

changes of perspective and attitudes,

the overall development of the person and

her relationship to the world.

Many learning outcomes are actually quite difficult to find evidence for, as many aspects of learning are long-term and involve deep learning. It requires considerable pedagogical skill to devise methods of assessing long term learning since this involves more than just testing retention of facts.

**Open questions** are useful but require an interpretative assessment that takes a variety of factors into account, including

the relation of form and content,

the examples used to illustrate understanding,

awareness of methodology and limitations of knowledge,

the application of understandings to unfamiliar and complex tasks,

the use of sources and resources, language, logic or argumentation, judgment,

independent thinking and originality and so on, depending on the field.

**Learning progression** is the notional and intended sequence of teaching and learning across subjects over time. It usually implies a growth of knowledge and complexity of knowledge and skills and it frequently maps out the main steps to be taken and the learning expectations. *Students can monitor their progression* by keeping a record of the assignments they have written, whether they have improved and corrected work that has been marked, or through self-assessments using simple checklists, such as: I didn't do my homework because (tick the following)

- I didn't have time
- I forgot/ was busy with other things
- I didn't really understand what I had to do

- I didn't have the relevant information
- Other reasons (please describe briefly)

Teachers can monitor learning progressions when they have a fine-grained framework of progressions in a given subject and evidence that the necessary skills or knowledge have been learned by individual students. This involves having checklists and regular monitoring.

**Steiner/Waldorf principles of assessment** Taking a Waldorf perspective on assessment means locating the act of assessing within a frame of Waldorf educational practice and interpreting modes and methods of assessment in these terms. Very few aspects of assessment are original to Waldorf with the possible exception of textual school reports (or report cards) and specific approaches to pupil case studies (child studies), both discussed below. Essentially a Waldorf approach means *trying to understand individual students*, taking the whole person bodily, emotionally, socially and spiritually, and then offering them support in their learning and development.

Assessment in a Waldorf context is never just focused on academic activity and is only used primarily for purposes of accountability where this is a statutory requirement. Assessment ought to be used for curriculum development, but this is rarely observed in practice. In keeping with its overall philosophy Steiner/Waldorf schools have a set of generative principles relating to assessment (Bransby & Rawson, 2021):

- Assessment for learning is a vital support for pupils' learning and development.
- The learning being assessed takes the whole person into account, in ways described in 'Waldorf Education for the Future' (Bransby & Rawson, 2021), and includes assessment of socialisation, qualification and appreciation of the development of the person.
- Assessment evaluates the things that Waldorf education values and is comprehensive.

- Waldorf practice uses formative, ipsative and summative assessment for different purposes.
- Testing is not used to select children or students to enter the next level (e.g. entry to grade 1, transition to high school) and all students have the right to 12 years of education.
- Grades are not given until the high school and usually in connection with external exams. Instead, formative assessment is used, mainly through narrative texts (annual written reports that characterize the person and her achievements and written feedback on students' work) and formal and informal conversations. Students never have to repeat a year or course if their performance is not adequate.
- Since learning should be experiential and social, performance assessments are necessary (e.g. naturally occurring evidence). Cooperation and mutual appreciation rather than competition are encouraged and students are motivated through ipsative-referenced assessment (i.e. in relation to their own pervious levels of attainment).
- Assessment gives teachers important feedback on their teaching as part of their planning reviewing process.
- Individual case studies **(child studies)** by teachers are practiced for gaining insight and understanding of the child's biographical development in order to form an open picture of what is emerging.
- Assessment should be effective, unobtrusive, embedded in classroom practice, unbureaucratic, yet also well-documented.

**Kath Bransby: (from the UK context, incorporating the need for pupil data tracking)**

# Pupil Progress Meetings

Pupil progress meetings should take place **once per half term**. They should be attended by the class teacher and a member of senior staff. There is no expectation that subject teachers carry out pupil progress meetings, but this would be an indicator of good practice. Meetings should last 30-40 minutes, so need to be tightly timetabled and managed.

Before:

- Teacher enters data for the term onto tracking system
- Data is analysed by senior member of staff (who will be conducting pupil progress meeting)
- Teacher prepares for meeting by reflecting on (and writing notes on) which children they have concerns about – which children are not making enough progress? What are their barriers? Which children are making better than expected or accelerated progress? How can they be challenged? Which children are 'cuspy' – e.g. right on the boundary of emerging/expected, or expected/exceeding? Is there anything that could be done to boost them over that line? Are there any other concerns about children? Are there any interventions that teachers believe could have a significant impact on children's progress? (these could be physical – e.g. a one-legged stool to support concentration – or academic – e.g. daily reading with a learning support assistant)

During the pupil progress meeting, staff will briefly review the impact of the previous meeting. They will then use the 'Pupil Progress Meeting' pro-forma to support discussions of children and how to best support their progress (see notes above). Senior staff will be able to use analysis of class data to identify children whose progress is less than expected, or to spot trends, for example lack of progress for children with SEND, a low number of children working at above expected levels etc.

## The Human Values Framework

| **Behaviour for Learning** | | |
|---|---|---|
| Children follow instructions promptly, with thought and care.<br><br>Children show respect and good manners, especially to those in a position of responsibility.<br><br>Children allow others to learn. | | |
| **Care and Presentation** | **Concentration and Effort** | **Confidence and involvement** |
| Children take pride in producing their best effort. They care for their work and present it neatly, beautifully and reverently. | Children can maintain focus on an activity for a period of time. They are not easily distracted, and pay attention to details. Children try hard to complete tasks they are given. | Children show high levels of energy and fascination. They initiate activities, and take a risk by engaging in new experiences. Children show satisfaction in meeting their own goals, and are proud of *how* they accomplish something, not just the end result. They enjoy meeting challenges for their own sake rather than external rewards or praise. |
| **Leadership Skills** | **Resilience and Perseverance** | **Respect and Kindness** |
| Children review how well an approach worked. They plan, making decisions about how to approach a task, solve a problem and reach a goal. They check how well their activities are going and change strategy as needed. They work collaboratively with others and find new ways of doing things. | Children persist with an activity when challenges occur. They show a belief that more effort or a different approach will pay off. They bounce back after difficulties. | Children show regard for the feelings wishes or rights of others. They are guided to acknowledge other people as human beings of equal value. Children show an attitude of politeness, helpfulness and |

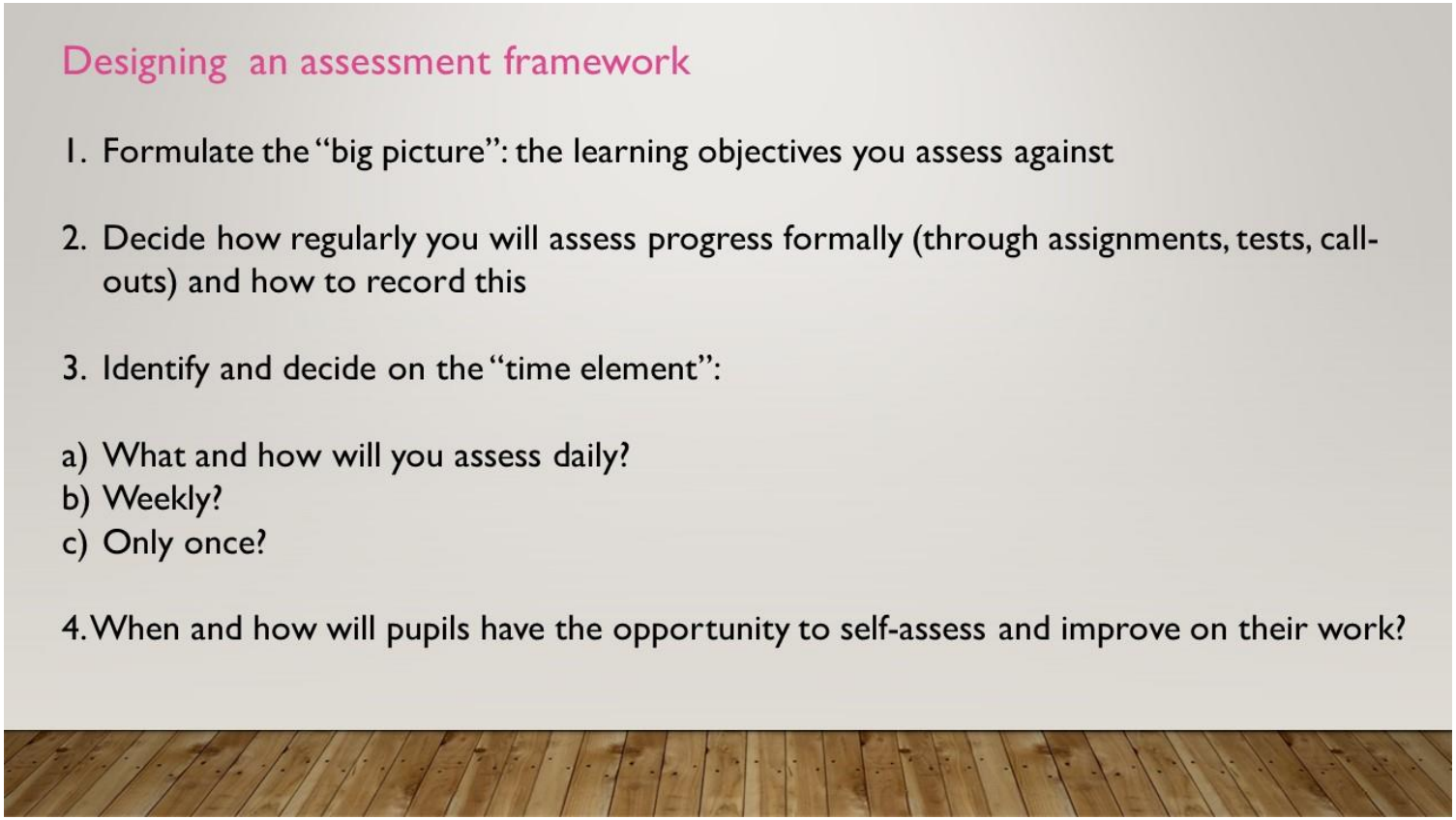
| | | |
|---|---|---|
| | | respect for others and especially those in positions of responsibility. |

| Score | The child demonstrates the characteristics: |
|---|---|
| 1<br>(Well Below) | Never |
| 2<br>(Cause for Concern) | Occasionally |
| 3<br>(Emerging) | Sometimes |
| 4<br>(Expected) | Often |
| 5<br>(Exceeding) | Frequently |
| 6<br>(Well Above) | Always |

# PITA 'On Track' descriptors for the Human Values Framework

*(PITA: Point In Time Assessment)*

# Appendix: practical suggestions by Sven Saar



# *Learning times tables:*

**Surface learning:** can I memorise the actual number sequence?

**Deep learning:** does it become reliable and sustained?

**Transferable learning:** can I use this skill in a different context?

**Summative assessment:** These are the actual numbers. Does the child know them or not?

**Formative assessment:** What would be a good strategy to remember the 9 times table?

**Ipsative assessment:** Last week you had 46 out of 64, this week it's 55. Well done. What are you going to aim for next?

# *Testing pupils:*

Looking at it from the perspective of the learner: How do I best demonstrate my increased skills and knowledge?

1. Involve the pupils in designing tests! Announce that there will be a final opportunity for them to demonstrate what they have learned, and invite them to submit questions and suggestions as to how that should be done.
2. Allow pupils to have access to their note books during the test. At least most of the time. After all, that is the purpose of taking notes! Why create a system if we then don't use it?

3. Ask open questions that allow pupils various ways of answering: the opposite of a multiple choice where you have predefined their success.
4. Value and encourage their ability to transfer knowledge.

**Some examples taken from various tests on astronomy (7th Grade)**

Monday review test:

Sun and Moon statements: true or false?

**A purely summative test to stimulate classroom conversation after the weekend and "get back in".**

| STATEMENT | TRUE | FALSE |
|---|---|---|
| The sun goes around the earth in 365.25 days | | |
| The seasons are caused by the moon. | | |
| The earth spins on its axis at about 460m / second. | | |
| Moon and stars reflect the sunlight. | | |
| The moon orbits the earth 13 times per year.<br>The north pole is at the top of the earth. | | |
| When it is high tide in Europe it is low tide in America. | | |
| The sun is the source of all our daylight. | | |

Final quiz test, **comprising different types of questions**:

1. What is the distance between the earth and the moon? **Summative.**

a) 384,402 km

b) 38,440.2 km
c) 3,844,020 km

2. What do you know about the Pole Star? **Selective.**

3. Why can you not see your zodiac sign on your birthday? **Associative.**

4. Do you believe there may be life on other planets? Explain your answer. **Creative.**

5. What aspect of the astronomy block made you most curious to find out more? Can you say why? **Individual.**