SET▸BC

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Assessment Tools and Strategies

Assessment Principle	Suggested Tool/Strategy
Improving quality of questions/quality of talk	• Ask the audience • Basketball not ping-pong • Big questions • Choice of answers • Concept cartoons • Collaboration in formulating questions • Increase thinking time • Learners set questions • Phone a friend • Question walls/Question trees • Random partners/random learner to answer question • Think-pair-share
Formative feedback	• Allow time – acting on feedback there and then • 'Closing the gap' comments • Instant feedback • Mini-whiteboards • MKO • Next steps showing how to improve • Self-marking • Temporary comments • Thumbs up, thumbs down • Two or three stars and a wish • Tickled pink/green for growth • Traffic lighting
Peer- and Self-assessment	• Learning logs • Peer marking • Sticky Note challenge • Self-marking • Success book • Talk partners • Thumbs up, thumbs down • Tickled pink/green for growth • Traffic lighting • Writing journals

● **Improving quality of questions/quality of talk**

Suggested Tool/Strategy	What is it?
Ask the Audience 	If a learner is asked to answer a question and appears to be struggling, they/the teacher can suggest 'asking the audience' or nominating a helper. This can take pressure away from a learner who might otherwise feel stressed, but allows the teacher to feel more confident about involving all learners in answering questions.
Basketball Not Ping-Pong 	Involving more than one learner in answering each question. If a teacher immediately evaluates one learner's answer, other learners have no incentive to listen or think. However, if a second learner is asked the same question, a third/fourth can be asked to evaluate which answer they think is more effective, keeping all learners actively engaged. The aim should be to extend the *thinking and learning sequences* in lessons, and to keep all learners actively engaged in thinking and learning.
Big Questions 	Posing 'big', open questions and problem-solving tasks, allowing plenty of time for thinking or researching either as individuals or as groups. This can lead to a greater depth of understanding and therefore a higher level response. For example '*How can we separate salt from water?*', '*Why do you think George Orwell wrote Animal Farm?*', '*How many ways can you think of to make ten?*' Even a seemingly closed question such as '*When did the Second World War start?*' can be a big question if the origins are probed.
Choice of Answers 	Give learners a choice between different possible answers and ask them to vote on the options. This is a very powerful tool as the fear of failure is removed because learners are agreeing with another person's ideas, therefore they do not have to formulate their own idea and risk fear of rejection by peers. This works especially well in the form of a **Concept Cartoon** where learners can select a cartoon character that they most agree with.
Concept Cartoons	Explores learners' misconceptions in science, math, English; commercially available; originally written by Stuart Naylor and Brenda Keogh. Each cartoon represents one 'solution' to a scientific or other problem. Learners choose/discuss which

cartoon most closely matches their own solution. Learners are usually intrigued by the different possibilities, and it takes away the 'fear of failure' for many reluctant learners. The teacher and class can then discuss and explore alternative opinions.

What factors affect how quickly sugar will dissolve?

Sarah: The hotter the water, the faster the sugar will dissolve.

Bethan: Temperature will have no effect.

Alun: Granulated sugar will always dissolve faster.

Gethin: Sugar lumps will dissolve faster than granulated sugar.

Jenny: Granulated sugar will dissolve faster than the lumps in cold water.

I think.......

Collaboration in Formulating Questions	Teachers/Learners generate and use powerful questions to encourage deeper thought and exploration. Formulating 'good' questions that elicit thinking and how to word them is not always easy. 'Good' questions need to be an integral part of a lesson plan. Collaboration between teachers, either in the same subject area or across subject areas, saves everybody time and effort. A bank of 'effective' questions can be built up over time. It is important that both learners and teachers understand the type of question being asked and a suitable response structure. Learners can be encouraged to think about what makes a high order question, for example by generating questions on a topic (e.g. using **KWHL***) and deciding which of their questions is the most powerful.

KWHL

What do I **K**now?	What do I **W**ant to	**H**ow am I going to find	What have I **L**earned?

		know?	out? **H**ow did I learn it?	

The following box gives some general questioning strategies which have been found to be very successful in promoting assessment for learning and extending learner thinking. If groups of learners have access to some of these strategies, small group talk can become significantly more effective.

Ask 'follow ups': "Why?" "Do you agree?" "Can you elaborate?" "Tell me more?" "Can you give an example?"

Withhold judgment: Respond to learners in a non-evaluative fashion.

Ask for a summary to promote active listening: "Could you please summarize Jane's point?"

Survey the class: "How many people agree with the author's point of view?"

Allow for learner calling: "John, will you please call on someone else to respond?"

Play devil's advocate: Push learners to define their reasoning against different points of view.

Ask learners to 'unpack their thinking': "Describe how you arrived at your answer."

Call on learners randomly: Avoid the pattern of only calling on those learners with raised hands.

Encourage learner questioning: Allow learners to develop their own questions.

Cue learner responses: "There is not a single correct answer for this question.", "I'd like you to consider alternatives."

Ask "Why?": "Why do you think that?", "Why did you use that method?", "Why might that be the case?"

Increase Thinking Time	Increasing 'thinking time' for learner response to **at least five seconds.** This allows learners to answer open questions and not those simply based on recalled facts. Other techniques include: learners recording their ideas on **Mini-Whiteboards** or paper before displaying their answers; **Think-Pair-Share**. There may be a perceived tension between *pace* and *allowing time for thought*. Giving pairs two minutes to come up with five good

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	ideas on a mini-whiteboard can allow for both pace and time to think.
Learners Set Questions	Setting questions is a high level skill. It involves learners in deciding the task, but also highlights misconceptions quickly. Learners often set impossible questions, or do not provide sufficient information for the task to be done. Any mark schemes or success criteria they create are often not directly related to the questions they set. By practicing this skill, they learn how to interpret questions and work out what sort of answer is being sought by the questioner. This exercise takes time as they find it hard.

It can be done by asking pairs to write three questions, with a mark scheme/success criteria on the back of each one. When they've finished, they pass their questions on to another pair. Finding faults with each other's questions generates good discussion between pairs. |
	If pairs/groups set questions for another pair/group, there is a strong motivation to ask good questions which really challenge the other learners. However, if the challenge is too hard, they can be asked to answer their own question.
Phone a Friend	Ask learners to generate questions. For example, learners are arranged in groups and asked to write five questions they do not know the answers to about a particular topic being taught. Each group selects one question from their list. This is read out and given to the next group. The next group reads out their question, which is given to another group until all groups have a question. The groups are then given a set amount of time to find out, discuss and then present their answer to the whole class. The teacher leads discussion where and when appropriate. **Ask the**
	Audience can also work very well with younger learners.
Question Walls/Question Trees	Often used in conjunction with other strategies such as **KWL/KWHL**, **Sticky Note Challenge**, etc. Learners are invited to write down/say out loud the one question they would most like answered about the current topic/wider issues. These questions, for example on sticky notes, are placed on the question wall in logical groupings, and form the basis of at least some part of the class's ongoing enquiry into that topic. Some teachers extend

	this by awarding a learner with the Question of the Week Award for the most intriguing/searching/useful/powerful question. They can also be used as a starting point to look at the effectiveness of question sequences.
Random Partners/Random Learner to Answer Question 	The names of all learners in the class can be placed on a Powerpoint slide show, one learner per slide, and the time between slides set at zero. The first two names to appear from the first pair, and so on. As each learner name comes up, that slide is temporarily deleted when choosing partners. When using the strategy for random 'answerers', teachers have found it more effective to retain the possibility that a learner may be selected again – this limits the potential 'opt out' scenario if a learner has already been selected to answer. Teachers can also use one named lollipop stick for each learner, and the sticks are picked out at random. Learners are not distracted by trying to work out why they have been paired with a particular pupil, and everyone can see the process is fair. Many teachers report that this approach leads to higher quality and more focused talk, provided the task set is a rich one.
Think-Pair-Share 	Learners are posed a question: given time to think individually; then time to discuss ideas with a partner; and finally the pair share their ideas with a larger group or the rest of the class. This helps to extend thinking time, and allows learners to develop more sophisticated answers than they could in a typical 'ping-pong' questioning session. It also supports reluctant learners with low self-confidence to actively contribute.

● **Formative feedback**

Suggested Tool/Strategy	What is it?
Allow Time – Acting on feedback there and then 	When work has been marked/peer-assessed, etc., allow learners sufficient time to read and then make one focused improvement based on the improvement suggestion. In order for the feedback to be formative, the information must be used and acted on by the learners, preferably as soon as they receive it.

'Closing the Gap' Comments 	Whatever the task, feedback should first focus on the learning objective of the task and the agreed success criteria. The emphasis when marking should be on both success against the learning objective and improvement needs against the success criteria. Focused comments are used to help the learner in 'closing the gap' between what they have achieved and what they could have achieved. The feedback provides a negotiated next step. Useful '**closing the gap**' comments are: ● **Reminder prompt** ('How could you describe the building?') ● **Scaffolded prompt** ('What was Mike's response to the argument?'; 'She was so annoyed that…'; 'Describe how Mike's body language changed because of the argument.') ● **Example prompt** ('Choose one of these or your own: He was so angry he was fit to burst/his face turned an angry red/he was fuming.') 'Closing the gap' should not imply that the teacher has a fixed concept of the ceiling of possible achievement – where the 'gap' ends. Teachers may prefer to use the term 'Raising the bar'. The aim is for learners to feel the intrinsic reward of regular incremental improvement and success, even if each increment is small.
Instant Feedback 	Feedback should be as immediate to the task as possible. If should also be related to the learning intention and any associated generated success criteria, otherwise learners' expectations will be that the learning intention is of secondary importance to other issues, e.g. spelling, presentation etc. The use of peer- and self-assessment can help to make feedback immediate. However, there will be some occasions when spelling and presentation are included in the success criteria. The idea of ongoing 'maintenance criteria' to cover punctuation, spelling, grammar, etc. alongside task specific criteria is effective in supporting learners' understanding of quality.
Mini-Whiteboards	The use of mini write on/wipe off whiteboards – either as individuals or as groups so that learners can display their answers; allows all learners to make a contribution. The teacher

	can select a few to read aloud, or quickly identify a wrong answer which it would be useful to explore.
	Some teachers use laminated letter size card, perhaps with red one side and green the other side. If learners are confident of their answer, they write on the green side; if they are in some doubt, they write on the red side. This lowers any stress they feel about getting the answer wrong. Tentative talk is often necessary when learners are feeling their way into a new understanding, and this is a good way to encourage learners to explore their tentative ideas.
MKO (More Knowledgeable Other) 	The teacher or a learner selects a classmate who is good at explaining a particular topic. This MKO (More Knowledgeable Other) acts as a peer tutor, helping their partner work through problems by giving hints and instructions (scaffolding). Over time, pupils can discover which MKO in the class (or elsewhere) is most helpful for a particular skill area. Links well with **Ask the Audience**/**Phone a Friend** (can be used if a pupil shows red when **Traffic Lighting**). Ideally teachers should try to ensure that all learners are seen by their peers as the expert communicator in at least one skill area.
Next Steps Showing How to Improve 	Learners are given a next step by the teacher or a peer, but more importantly are shown **how** to reach the next step. Teachers/learners then check that the next steps have been reached. The next step could be the 'wish' of **Two/Three Stars and a Wish**. The feedback becomes formative when the next step has been reached. It is usually helpful if the next step comment starts with an imperative such as: *Add, Change, Explain, Include, Leave out, Move, Place, Show, Tell…*, and goes on to give very specific advice – although not usually giving the 'answer' directly.
Self-Marking	Learners mark their own work using their own success criteria or mark schemes. It is most effective if learners have had a hand in the development of the success criteria or even developed their own mark scheme and compared this with the published version. This allows learners to understand the assessment procedure and look for ways to improve the existing and future work. At its

	simplest level, learners can be asked to indicate precisely which part of their work they are most proud of.
Temporary Comments 	Some learners are very sensitive about written comments 'spoiling' their work. Teachers may decide to ensure that corrections to work and comments about the work are temporary. Pencil or sticky notes can be used, for learners to remove once they have acted upon the comments. However, tracking back how improvements have been made can be an important part of metacognition, so in some circumstances teachers may wish to encourage learners to keep track of their learning progress, identifying the kind of advice that is most helpful in their individual progress.
Thumbs Up, Thumbs Down 	Similar principles to **Traffic Lighting**, and avoids the trials of writing self-assessment. Is very useful for younger learners who may struggle with the concept of 'amber'; instead they hold their thumb to the side.
Two or Three Stars and a Wish 	Learners need to know the aspects of their work which are successful, and what they need to improve. The ratio of three to one is based on research which shows we are more likely to take advice if there is at least three times as much encouragement as criticism. The teacher or peer identifies three specific aspects of the work which are effective (the stars), and identifies one specific detail which needs to be improved (the wish). The learner acts on the 'wish' as soon as the comment is received. Younger/Less experienced learners might find it easier to use two rather than three stars. It is very important that each 'star' is not vague/generalized praise, but specific identification of a skill that is being/has been mastered and therefore linked to developed success criteria. It is also vital that the learner acts on the 'wish' if the feedback is to become formative.
Tickled Pink/Green for Growth	For younger children, teachers can highlight in pink the two/three 'stars' of two/three stars and a wish, and highlight in green the 'wish' – a skill that needs to grow. This also provides a strategy for highly focused but quick marking/feedback. Using a highlighter pen on three precise words/phrases/sentences, with an arrow to explain what is good, provides quick and efficient

Suggested Tool/Strategy	
Back to top	feedback. Highlighting in green a specific word/phrase/sentence for improvement, again with an annotation suggesting the way it might be improved, also helps to make the marking quicker and more focused. All the feedback should match with the agreed success criteria. Older/more experienced learners can also use this strategy for self- and peer-assessment. Using a visualizer gives instant feedback and can model effective formative assessment.
Traffic Lighting Back to top	Traditionally a well used and successful tool for both developing skillful thinking and assessment for learning. Before or after a section of work, before or after a test, or as part of a major revision program, learners traffic-light key words, key concepts, confidence levels, or even parts of exam papers. This allows them to prioritize their future efforts towards the things they don't yet understand or cannot yet do. They need help in sub-dividing the content or skills before they can use the colours, but can then focus on trying to turn reds to amber and ambers to green.

● **Peer- and Self-Assessment**   Back to top

Suggested Tool/Strategy	What is it?
Learning Logs	These are often used as an extension of **KWL**/**KWHL** grids in that they allow learners to express a journey in learning. They may be used for individual, paired or group reflection. Entries may be in the form of text, pictures, or diagrams (e.g. flowchart); essentially it can be a scrapbook of thinking, so that learners can retrace their steps in decision making and begin to formulate strategies which allow skills to be transferred to other unfamiliar contexts. For very young learners, some teachers have found success in developing 'thinking boxes', where learners can 'post' examples of useful decisions or strategies. Often the learners will consult their 'thinking journal' or 'thinking box' to see if there is a useful tool that could be transferred to a new context – this obviously requires some skill and very careful initiation to allow learners easy access and understanding of someone else's through

Back to top	processes. This method can be a useful way of beginning to explore metacognition, and in preparation for self and peer assessment and other assessment for learning principles.
Peer Marking **Back to top**	Learners mark or comment on others' work. Can be very effective after group or individual presentations, especially if the success criteria are clear and have been discussed before the work begins. Teachers use a variety of approaches, including pairs of learners writing some text, for example, and another pair peer-assessing it against agreed and shared success criteria. The two pairs then explain their evaluations, and suggest one specific improvement. The original pair then make at least one specific improvement.
Sticky Note Challenge **Back to top**	Groups, pairs, individuals evaluate their learning. For example, one of the questions: "*What have I learned?*", "*How did I learn this?*", "*What I found easy/difficult…*", "*What do I need to do next?*" is answered on a sticky note and then shared with another group or the rest of the class. This technique focuses on thinking about learning, and encourages learners to think towards their next steps.
Self-Marking **Back to top**	See the **Formative Feedback** table
Success Book	A small exercise book that can be used to record and build upon generic success criteria. The learner determines success criteria for a task, for example '*What makes a good poem?*'. As the taks progresses, the learner maintains a focus on his/her success criteria and modifies them or adds new ones. Learners can share their success criteria at any point with other learners to help them refine them. Their own success criteria can also be used by others to assess the learner's poem, and the learner can then review the success criteria again. If learners maintain a selection of generic success criteria in the book, they could cover a wide variety of tasks from writing poems to letters to writing up a scientific enquiry, to drawing a graph, etc. When the learner next writes a poem, he/she has a ready-made list of success criteria as a starting point. In some variations, groups or classes have maintained success books, adding to these as appropriate so

Back to top	that in some cases a variety of criteria may be shown for the same task. This allows learners to enter into discussion regarding the appropriateness/usefulness of some of the criteria listed.
Talk Partners Back to top	Learners share with a partner three new things they have learned, what they found easy or difficult, what they need to improve, something they would like to learn next, etc. Learners explaining thoughts and ideas to each other is often an essential part of the learning process. This tool allows an overview of the learning that has taken place, and allows the teacher to change the teaching focus if necessary. Many teachers use talk partners as a regular feature at various stages in the lesson, not just for reviewing what they have learned. It supports learner's self-confidence and makes it more likely that they actively contribute and share ideas as it removes the fear of being isolated.
Thumbs Up, Thumbs Down Back to top	See the **Formative Feedback** table
Tickled Pink/Green for Growth Back to top	See the **Formative Feedback** table
Traffic Lighting Back to top	See the **Formative Feedback** table
Writing Journals Back to top	See **Learning Logs**. Teachers need to ensure that learners understand how to use the journals for genuine reflection – it takes time to develop their expertise.

(Excerpt from the 'How to develop thinking and assessment for learning in the classroom' guidance book)