Windows into assessment *as*, *for* and *of* learning

> *...Effective assessment, evaluation and reporting are critical to the overall success of all of our students.* ***The primary purpose of assessment and evaluation is to improve student learning.*** *To that end assessment is the process of gathering and interpreting information that accurately reflects the student's demonstration of learning in relation to the knowledge and skills outlined in the overall expectation documenting a learner's growth in a reporting period.*[1]

Assessment *as* learning

> *Insight into our own thoughts, or metacognition, is key to high achievement in all domains*[2].
>
> ***Motivation is key to high achievement:*** *positive emotions are correlated with two things: planning and goal-setting, and achieving planned goals.*[3]

Assessment as learning is the process of developing and supporting student metacognition.[1]
What do we mean when we talk about metacognition?

> ***Metacognition is thinking about thinking****, taking note of how and why they are thinking, and seeing thinking as an action they are taking, is one part. Two other core components of metacognition,* ***monitoring thinking and directing thinking****, need to be included. Directing thinking happens when students can call upon specific thinking strategies to redirect or challenge their own thinking.*[5]
>
> ***Equipping learners with a rich meta-strategic base*** *for their thinking, makes their thinking visible. When learners develop routines around thinking, their thinking about everything deepens. Becoming meta-strategic thinkers is crucial for understanding and becoming life-long independent learners.*[6]

Assessment as learning focuses on the role of the student as the critical connector between assessment and learning[1]. Students are actively engaged in the assessment process; they have a clear understanding of learning goals and success criteria. They use criteria to set personal *s-t-r-e-t-c-h* goals, monitor and adjust their own learning, reflect on assessment feedback from the teacher, self, and peers and set goals based on emerging understandings of their own learning.[4]

Setting *s-t-r-e-t-c-h* goals in relation to criteria co-constructed for the task

> *Curriculum standards describe the knowledge, skills and processes that students are required to learn. Learning goals describe the standards in ways that actively engage students in the learning process. When teachers express curriculum expectations as learning goals in student-friendly language, students know what they have to learn, connect the tasks they are doing with what they are learning, and are able to monitor how they are doing in light of these goals*.[1]
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> *When we invest time up front to build the vision* (of what students are to be learning), *we gain it back later in increased student motivation and the resulting higher-quality work.*[7]
>
> *The brain, like the body changes most quickly in that sweet spot where it is pushed outside – but not too far outside – its comfort zone.*[8]

In 2012 we began inviting learners to set *s-t-r-e-t-c-h* goals, goals designed to stretch the learning just beyond current capabilities. The teacher guides the co-construction of **a T-chart of criteria**[9]. Through the process learners use the criteria, and their own personal understandings of their own skills and knowledge, to set a goal that will *s-t-r-e-t-c-h* their skills. They also identify brain activity icons to support them as they work to achieve their goals.

During and after the learning, they find evidence of meeting their goals, notice strengths emerging in their work, and set new goals based on a growing understanding of their own learning. This series of actions develops self-monitoring and the self-regulation of learning.[10]

> *There are several doorways to flow... when we tackle a task that challenges our abilities to the maximum – a 'just-manageable' demand on our skills… a keen focus jump-starts flow. This optimal brain state for getting work done is marked by a greater neural harmony.*[11]
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> *Challenges that are both life-relevant and worthy of mastering are most likely to activate primitive social instincts. Worthy challenges and high expectations are signs of respect. Providing support necessary to master the challenges are indications of caring and support. Both signify the social inclusion of acceptance.* ***Challenging goals...*** *beyond-their-comfort zone targets - have a dramatic effect on achievement.*[12]
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> *When people are working towards challenging goals, they expect to achieve them at some cost and effort. As a result, they place a high value upon what they have achieved.*[12]
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> *… achievement is enhanced to the degree that students and teachers set challenging rather than 'do your best' goals relative to the students' present competencies… difficult goals lead to a clearer notion of success and direct the student's attention to relevant behaviours or outcomes… It is not the specificity of the goals but the difficulty that is crucial to success. There is a direct linear relationship between the degree of goal difficulty and performance. The performances of the students who have the most challenging goals are over 250% higher than the performances of the subjects with the easiest goals.*[14]
>
> *Goal-setting and goal achievement influence learning and generate motivation to learn in two important ways: first, by providing a learning target that students can see and understand; and second, by helping students gather information about how they are doing in pursuit of that target.*[15]
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> *By explicitly teaching students how to set appropriate goals, as well as how to assess their work realistically and accurately, teachers can help to promote this upward cycle of learning and self confidence.*[16]
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> *Research strongly implies that the more specific the goals are, the better they are. That is, goals that are specific in nature are more strongly related to student achievement than goals that are not.*[17]

Noticing strengths… is important

> ***Talking about your positive goals*** *activates brain centers that open you up to new possibilities… a focus on strengths urges us toward a desired future, and stimulates openness to new ideas, people, and plans. As you notice strengths, you weave them into your brain.* ***The brain takes its shape from what the mind rests on.***[6] *The positive lens keeps the joy in practice and learning – the reason even the most seasoned athletes and performers still enjoy rehearsing their moves.*[18]
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> *Strength has two primary aspects: energy and determination… Get in the habit of deliberately calling up a sense of strength… to fuel your intensions… When you experience strength… it deepens its traces in implicit memory and becomes a part of you… Intentions involve strength applied to clear and appropriate goals, sustained over time. Most of the intentions operating in your brain do so outside of awareness.*[19]
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> *By noticing strengths, we are bringing abilities into awareness. The deliberate stimulation of feelings of strength deepens their neural pathways… when your brain gets motivated it establishes intentions and pursues them… to be alive is to lean into the future*[18] *Strength is often quiet, receptive determination.*[20]

Assessment *for* learning

> *Research shows that students who are involved in assessment for learning do better on external tests and measures than those who are not. Assessment for learning prepares students for whatever comes their way by helping them deeply understand the work that is expected of them.*[21]
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> *Finding the edge of students' learning and helping them to take up possibilities for growth.*[22]

Assessment for learning is the ongoing process of gathering and interpreting evidence about student learning for the purpose of determining where students are on a continuum of learning, where they need to go, and how to best get there. The information gathered is used by teachers to provide feedback and adjust instruction, and by students to focus their learning.

Assessment for learning is a high-yield instructional strategy that takes place while the student is still learning, and serves to promote learning.[1]

Guidelines for Classroom Assessment: a filter for reflecting on practice

- Classroom assessment provides information to support personalization of learning, to improve learning, and to communicate with parents.
- Classroom assessment happens in an ongoing fashion and should be seamlessly intertwined with instruction. Assessment is designed to give timely feedback.
- Classroom assessments should be based on clear criteria and examples so that students know what is expected.
- Students should be part of the assessment process and involved in setting criteria, setting their own learning goals and designing demonstrations.
- Classroom assessment should include a wide variety of opportunities for students to demonstrate their learning.
- Performance tasks should be substantial and get at **deeper learning** and understanding.
- Support materials developed for classroom assessment should provide teachers with a good understanding of how skills or processes develop (to **make clear what "is next**").
- Classroom assessment is not an event. Assessment is a natural outflow of the **instruction-assessment-evaluation-learning cycle.**
- Assessment is tied to learning, not behaviours. It is important to separate out unrelated elements from the learning standards[23]

A continuum of learning, based on standards set for learners of a similar age, gives everyone concerned with achievement lenses for analyzing the learning, and offers *'next steps'* to target for instruction. Below is an excerpt from the A•S•K-6to9 Skills and Competencies Continuum (Close, Nottingham, Warkentin & Pain, 2017)[24], a continuum derived from the B.C. Performance Standards for Reading and Responding to Text (1998).[25] The continuum shows where learners are in the corridor of learning in relation to curriculum standards and many core competencies: personal (goal-setting and reflection), thinking (analysis, synthesis, evaluation, reflective, creative); communication.

An excerpt of skill bands from the A•S•K-6to9 Skills & Competencies Continuum

Skills & Competencies	[1]Approaching [2]Emerging	[1]Meeting Developing	[1]Fully meeting Proficient	[1]Exceeding Extending
Imaging	Generates images that show some understanding of an aspect of the text.	Generates images that demonstrate a literal or concrete understanding of the text.	Generates images that demonstrate a clear, accurate and complete understanding of the text.	Generates memorable images that demonstrate a thorough, accurate and nuanced representation of understanding.
& **Idea Development**	Generates simple ideas with limited detail.	Generates logical ideas that include some relevant details.	Ideas demonstrate a deeper understanding of the text; includes some important ideas and descriptive details.	Includes a balance of significant ideas and rich supporting details.

Synthesis Tagline • Keyword summary statement: 5-7 words that convey an image and a feeling	An idea from the text is identified. Tagline is created using language from the text.	Tagline accurately captures an important idea in the text. Uses language from the text, and some personalized language to create a tagline.	Tagline accurately captures an overarching or key idea by combining two or more details. Effectively personalizes language from the text to create a tagline.	Insightfully integrates key ideas and details into an overarching idea. Tagline is expressed using precise, personalized and/or insightful word choices.
Interpreting Big Idea, Message or Theme • summarizing and synthesizing	Literal and concrete summary with direct or obvious connections to text or own experiences. Includes *'first… next… finally'* for some aspects of the text (See ASK-3-5)	A generally accurate summary with clear, logical connections to text, own ideas and/or other selections, and supported with reasons and/or examples. Includes *'problem, issue, solution'* for entire text.	A thoughtful synthesis, integrating text, own ideas and/or other selections, and supported with reasons/example/details.	A complex and evocative synthesis, integrating author's and own knowledge; makes insightful, often subtle points among text, own ideas and/or other selections.
• analyzing, interpreting	Relates the most obvious and concrete aspects of the selection to the reading or viewing experiences.	Generally accurate analysis and interpretation of theme/ideas, includes some inferences.	Analysis and interpretations of theme/ideas/elements show complexity; reveals deeper meaning; makes thoughtful inferences.	Specific and insightful analysis and interpretations of text, with connections to own ideas, other selections, or wider world.
• drawing conclusions	Offers reactions with logical interpretations or obvious themes/ideas with minimal justification. A general obvious conclusion.	Logical conclusions.	Solid, clear conclusions.	Insightful, satisfying and often complex conclusions.
Goal-setting • for reading and responding	(With support*) uses class generated criteria to identifies vague stretch goals. Identifies a focus for achieving goal/s.	Uses class generated criteria and self-knowledge to identify reasonable *s-t-r-e-t-c-h* goal/s.	Uses class generated criteria and self-knowledge to identify personally relevant *s-t-r-e-t-c-h* goal/s.	Uses class generated criteria and well-considered, significant self-knowledge to express sophisticated *s-t-r-e-t-c-h* goal/s.
Self-regulating	May take steps towards achieving the goal. May adjust focus to achieve the goal.	Attempts to monitor and adjust focus to achieve goals.	Monitors and adjusts focus to achieve goal/s.	Monitors and purposefully adjusts focus to achieve goal/s.

[1]Descriptors in each category were derived from: www.bced.gov.bc/perf_stands/reading

[2]**Emerging→Developing→Proficient→Extending** offer another way to describe where learners are in the corridor of learning.

Assessment *of* learning

Assessment of Learning is the process of collecting and interpreting evidence for the purpose of summarizing learning at a given point in time, to make judgments about the quality of student learning on the basis of established criteria, and to assign a value to represent that quality. The information gathered may be used to communicate the student's achievement to parents, other teachers, students themselves, and others. It occurs at or near the end of a cycle of learning.[1]

Teachers review the evidence of learning that students have collected and the evidence that they themselves have collected over time through observations, conversations and products. As teachers examine the evidence, they consider 'best evidence' in terms of validity and reliability.

This standards-based grading and reporting process honours teacher's informed professional judgement and provides a way for teachers to support students as they take a variety of learning pathways to success and quality.[26]

In SmartLearning classrooms we formally assess reading and responding using the ***A•S•K-Kto9 Assessment of Reading and Responding***[22] three times a year: baseline, mid-year/semester, and year-end. **The A•S•K process** scaffolds thinking for deeper understanding as learners read/view and respond to text over a number of lesson-like sessions. Teaching for deeper learning takes time; assessing to capture the most developed thinking and understanding a learner can demonstrate, mirrors the teaching.

> *It takes longer to learn the complex skills of academic literacy – skills such as comparing, contrasting, informing, ordering, classifying, analyzing, justifying, persuading, problem-solving, synthesizing, and evaluating.*[27]
>
> *Because challenging texts do not give up their meanings easily, it is essential that readers re-read such text; a rich text simply cannot be understood and appreciated by a single read, no matter how skills and motivated the reader.*[28]
>
> *The A•S•K assessment process allows students to consolidate/synthesize their knowledge and skill, and guides them to independently respond to complex high inference tasks.*[1]

Overview of the A•S•K-Kto9: The A•S•K provides information to guide teacher planning, observing and communicating student achievement. The assessment has been designed to show how well learners A•pply their S•kills and K•nowledge as they read and respond to grade-level text*. The process can also be used to assess listening and viewing comprehension. The beauty of the A•S•K is that in one assessment you can see where learners are in relation to both curriculum competencies[29] and core competencies: personal (goal-setting, self-regulation, reflection), thinking (critical, creative, and reflective), and communication.[2]

The A•S•K assessment process enables teachers to see how well learners are applying reading, thinking and metacognitive strategies – critical competencies emphasized in global curricula[30] and in self-regulation research.[31] During the assessment learners are guided to set personal goals in relation to a complex task, connect to the text by activating prior knowledge, generating questions and predictions. They are invited to read and interact with a text that has been chunked into three (two in Gr.1), sketch to express and expand their thinking, reflect to monitor and regulate their progress towards achieving their goals. They summarize after reading and responding to each chunk. They re-read the entire text, co-construct criteria for powerful responses, use the criteria to set personal goals stretch goals, re-image the text and generate a response. At the end of the assessment, learners reflect to find evidence of meeting their goals, identify strengths they notice in their learning, and use the information to set new goals – right from the start in Kindergarten.

Timing for the A•S•K: During classroom-based research we noticed learners generated richer, more developed thinking when the assessment was implemented over a number of sessions.

Each session in the A•S•K guides learners to apply skills and competencies in ways that generate ever-increasing understanding. The teacher-talk embedded in the process is an example of language that stimulates fuller, more developed responses.

> *Deliberate practice is an important term. This is the type of practice that is consciously devoted to the improvement of a skill, as distinct from the exercise of that skill.*[32]

The A•S•K-Kto9 process reflects the Principles of Effective Assessment[9], and provides opportunities for educators and learners to experience assessment as, for, and of learning. The assessment includes: a teacher protocol, grade-level texts Gr.3-9**, student response sheets, an A•S•K Skills & Competencies Continuum for each grade (one version on an 11X17 sheet to track learning over time, and another version set out as skill bands for teaches to use for planning, discussing and conferencing), and a **Class Trends Sheet** for analyzing achievement information.

The A•S•K-Skills & Competencies Continua show where learners are in relation to grade-level standards, and show possible next steps for learning. The continuum categories and achievement descriptors were derived from the Early Literacy Continua (2009)[33] and the B.C. Performance Standards (1998)[24]. Achievement can be highlighted in different colours over the year, giving everyone concerned an at-a-glance view of progress.

The most important assessment is done in observational form on a daily basis. Using tools like the A•S•K Skills & Competencies Continua, the Oral Language Continuum[34], the Orthographic Continuum[35] to formatively observe and assess learners throughout the year, is a helpful way to guide your instruction, differentiate for your learners, and celebrate daily successes.

* Text: oral interactions, images, print, media, hands-on experiences, experiments, field trips... the A•S•K-Kto9 skills & competencies continuua can be applied as learners engage with any text, at any grade.

**Story books in Kindergarten, and both storybooks and levelled texts in Gr.1 & 2. Grade-level text in Gr.3-12.

References

(To be added)