

## Appendix B <sup>(Tools)</sup>

### Lexicon of Formative Assessment Strategies

The strategies outlined here represent a compilation of readily available ideas combined with some of my original ones. The book *Differentiated Assessment Strategies* (Chapman & King, 2005) and the Glossary of Instructional Strategies, maintained by PlasmaLink Web Services (2007), were particularly helpful in the assembly of this lexicon. Please note that strategies listed here are flexible. Adapt them to fit your assessment needs and your students.

#### **3-2-1**

Students write three key terms related to what they know or have learned, two questions they have, and one way they can apply their learning. Variations include asking for three facts, two concepts, and one question.

#### **10 + 2**

The teacher presents information for 10 minutes and then asks students to summarize, reflect on, or apply the information for two minutes. Teachers can vary timing and content to meet instructional goals. Common variations include 20 + 5 and 5 + 1.

**A-B-C Summary**

Students think of a word related to the topic of study for each letter of the alphabet. Students can also think of a lesson-related word for each letter of a unit vocabulary word.

**Acronym/Abbreviation Summaries**

Students create an acronym or abbreviation to summarize the main points of a topic. For example, a health class studying nutrients devised the acronym *B-Train* to sum up what they learned about B vitamins. *B-Train* comes from B-TRN, which stands for B (vitamins) = T(hiamin), R(iboflavin), and N(iacin). This technique is also a good memorization tool.

**Application Cards**

Students think of one way to apply their new knowledge or skill in the real world and write it down on an index card. The teacher collects the cards and either shares them anonymously with the class or keeps them to review privately.

**Ball Toss**

To start the activity, the teacher gives the ball to a student and asks a question. The student can answer the question and toss the ball to a student of his choice, who will answer the next question, or he can decide not to answer the question and toss it. The teacher allows the students only a set number of passes on questions. Teacher- or student-generated questions can be used.

**Bump in the Road**

Students write down something from the lesson that they find confusing or a skill or concept that they find difficult. Teachers can collect the responses to review, or they can form small groups and ask students to share their "bumps" and seek clarification. If everyone in a group has the same problem, then the group shares it with the whole class.

### Categories

Students are challenged to come up with a word or term that corresponds to categories aligned with key content. Teachers may generate these categories, setting them up in a grid:

Ecosystem	Climate	Animal	Edible
Wetlands			
Desert			
Grassland			

As students become familiar with the strategy, they can come up with some or all categories and set up grids on their own. Grids can be completed individually or in small groups. In a variation of this strategy that recalls the board game Scattergories, teachers provide only a letter for some or all of the grid categories, and students respond with content-related words, terms, or phrases that begin with that letter:

Ecosystem	E	C	O
Wetlands			
Desert			
Grassland			

### Chunking/Clustering (*see also* Graphic organizers)

A technique where students are asked to group information graphically into chunks or clusters, sorting it by categories or attributes. This helps to clarify connections and relationships and supports memorization.

### Color-Coding

Students use color tags to label objects or ideas that belong together.

### Concentration

The teacher makes pairs of cards with the name of a concept on one and the description of the concept on the other. Students place cards facedown on a table and take turns choosing two cards to flip over. If the cards match and the student correctly identifies them as matching, the student keeps the cards. If the cards do not match, the student puts the cards facedown again.

**Continuum**

Students arrange cards with key words to form a continuum based on selected criteria. For example, *apple*, *peach*, *grape*, and *cantaloupe* can be arranged by size, color, or growing conditions (temperate to tropical).

**Cooperative Review** (*see also* Q&A Mix-Up)

Student groups write questions and take turns asking other groups their questions. This strategy can be conducted as a game, with points awarded, or as a review for a test.

**Corners**

The teacher labels various corners of the classroom with “Disagree,” “Agree,” and “Unsure” (or other relevant labels) and then reads a statement and asks students to go to the corner that best represents their response. All students sharing a similar point of view work together to collect evidence and present an argument supporting their beliefs.

**Critiques**

Students analyze, interpret, or evaluate the work of experts, peers, or self. Critiques can be formal or informal, written or oral, but are most effective when based on a common rubric and when feedback is descriptive of process and product.

**Empty Outlines**

The teacher gives students a partially completed outline of a lesson, and students fill in the missing content as it's presented. This strategy can be combined with a Think-Pair-Share after the lesson to compare answers or problem spots.

**Entrance Slips/Exit Slips**

Students write a response to a teacher-generated question on a slip of paper. The teacher can review answers privately or share some with the whole class anonymously to start a discussion. Entrance slip questions relate to upcoming learning. Exit slip questions relate to completed instruction. In a variation, teachers can use the same question as both an entrance and exit slip to measure growth in learning.

**Feathers and Salt**

Students reflect on and identify two concepts or skills that they are soaring with, feeling confident of their understanding (feathers). They also identify one concept or skill that is pulling them down (the salt on their tail). Students can share privately with the teacher, or the teacher can share responses anonymously with the class.

**Fingers-Up**

Students indicate their degree of understanding on a scale of zero to five by holding up the corresponding number of fingers. Student can close their eyes for anonymity.

**Gallery/Graffiti Wall**

Students make a display of their knowledge or beliefs. They can create these individually or make a common display, or graffiti wall.

**Games**

Students create games such as *Jeopardy* and Trivial Pursuit to demonstrate understanding. Completed games can be used as a review.

**Grab Bag**

In this review activity, students reach into a paper bag and draw a piece of paper on which they or the teacher have written a lesson-related question, answer, name, fact, concept, or any combination of these. Each student responds to the slip he or she has drawn by answering the question, providing a question for an answer, finding a classmate who has drawn the answer to his or her question (see Q&A Mix-Up), or explaining the significance of the lesson-related information. In a variation, teachers select objects that relate to lesson content and put them in a bag. Students take turns drawing an object from the bag and explaining or illustrating how the object relates to what they have learned.

**Graphic organizers**

Students create graphic organizers of their knowledge and understanding. These reveal connections and relationships between concepts and can take many formats: Venn diagrams, webs, concept maps, clusters or

chunks, bubbles, trees, brackets, tables, flow charts, timelines, T charts, spiders, sequences, continuums, cycles, and so on.

**Grouping/Sequencing**

Students use new learning to group information in various ways, depending on directions provided. Grouping possibilities include chronological order, sequential order, general to specific, part to whole, spiral, step by step, and so on.

**Idea Spinner**

The teacher makes a spinner divided into four quadrants with labels such as "Vocabulary," "Main Idea," "Application," "Interdisciplinary Connection" or "Calculate," "Summarize," "Apply," or "Evaluate." Students spin to see what type or category of questions they will be asked. The teacher can differentiate the level of task difficulty.

**Inside-Outside Circle**

Each student writes a review question with the correct answer on a card. (The teacher needs to check cards for accuracy.) Students form two concentric circles, about equal in size, with students in the inner circle facing students in the outer circle. Students facing one another pair up ask each other their questions. The outside circle moves to create new pairs until everyone has been asked all the questions.

**Inverted Pyramid**

Students write down what they know, starting with the most important information, followed by the next most important, and closing with the least important information.

**Journaling**

Students write their thoughts about their learning in a designated notebook or journal. Specific prompts can help students focus their thoughts. Students share journal entries with the teacher, and the teacher provides feedback.

**Jumbled Summary**

Teachers present random words from instruction (either verbally or in writing). Students put these key words and phrases into a logical sequence.

**K-W-L**

Students identify what they know (K), what they want to know (W), and what learning activity they will use to find out (L). Students can work individually and pass in responses to the teacher or work in small groups and then share responses or post them collectively and walkabout to view them. Variations include K-W-H-L and K-W-H-L-S, or know, want to know, how to find out, learned, and still want to learn.

**Layman's Translation/Martian News**

Students write a simplified summary of what they have learned or explain what they have just learned to a Martian just arrived on Earth who has no previous knowledge of the topic.

**Line-Up**

The teacher gives student teams cards with sequential ideas that can be put in order. Each student receives a card, and then the team lines up to put the concepts in order. With multiple teams, sequences can be compared and discussed.

**Memory Matrix**

Five to eight students volunteer to summarize the main ideas of instruction and share something they learned. A new group of volunteers (the same number) restate what the first volunteers summarized and shared.

**Minute Papers**

At the end of class, students write for one minute in response to prompts such as "What did you learn today?" "What is most/least useful?" or "Why is this important?"

**Muddiest Point**

Students name or describe the concept they have the least understanding of, or their muddiest point. Students can share their muddiest points with the class, or the teacher can collect them and review them privately.

**Multiple Response Cards**

The teacher prepares sets of cards with short answers to questions (several cards can have the same answer) and passes several out to each student. During the lesson, the teacher asks questions, and students review their cards to see if they have the answer. If they do, they hold up the card. Cards can also be color-coded so that when the answers are held up, the teacher can scan colors quickly for correct answers.

**Nutshelling**

Students write or orally give a summary of their learning that captures the main point or essence of the material.

**One Word**

Students write one word that summarizes their learning and then explain why they chose that word.

**Paraphrasing**

Students restate important information in their own words.

**Post-Test Review**

On completing a test or quiz, students identify the most difficult or challenging question by marking it with an asterisk on their paper. The teacher gathers the tests and, for the questions with the most asterisks, gives prompts, reminders, or examples (but not answers) to review. Tests are returned to students so that they may change their responses before handing in the test for grading.

**Pros and Cons**

Students generate lists of arguments for or against a course of action or set of assertions. They then can rank them, evaluate the short list, and screen out arguments based on information available or found in research.

**Q&A Mix-Up**

Students write a review question on a colored index card and the answer to it on a card of a different color. The teacher checks answers for accuracy and then collects only the answers and redistributes them. To start, one volunteer reads her question. All students look at their answer cards,



and whoever thinks he has the answer raises his card and is called on. If the student is correct, he asks his question and the round continues. The teacher can review any questions that students are unable to match.

### **Questioning Baseball**

The teacher asks a question of one student at a time; students may hit at it (guess with no penalty), pass it on to the designated hitter or next player (this happens one time), or hit it out to the crowd (all participants) to find someone who can catch it and answer the question. Teachers can differentiate the questions. It's fun to play with a foam ball.

### **Quickdraw/Quicktalk/Quickwrite**

In pairs or small groups, students have a short period of time—two to three minutes—to share all they know about a topic using drawings or symbols (Quickdraw), spoken words (Quicktalk), or written words and graphic organizers (Quickwrite).

### **Recall, Summarize, Question, Connect, and Comment (RSQCC)**

At the end of instruction, students *recall* (list) key points, *summarize* each point in a single sentence, ask unanswered *questions*, *connect* the material to the learning objectives, and write a concluding *comment*.

### **Scripted Cooperative Dyads**

In pairs, students read assigned material. They then alternate taking the role of speaker (who summarizes and explains what was read) and listener (who listens and then corrects or adds to what the speaker said).

### **Share-Pair Circles**

The teacher divides the class into two equal groups, and each group forms a circle. The inner circle faces outward and the outer circle faces inward to form pairs of facing students. In response to teacher prompts (which could be a concept, a question, or a controversy), each pair discusses their ideas, and then one of the circles rotates to create new pairs. Repeat until the original pairs are again facing each other.

### **Stars and Wishes**

Students identify two things they especially liked about another student's work or two significant things they learned from it. They then make one

wish for improvement (e.g., requesting more of a successful part or clarification of a confusing point).

**Stir the Teams**

The teacher forms groups of four students. Each student on a team has a number. Teams work together to prepare a summary of a reading or of learning or an answer to a teacher question. When the teams have completed their assignment, the teacher calls a number and the student with that number rotates to the next group. The procedure then repeats.

**Think-Pair-Share**

In response to a teacher prompt or question, students think individually, then pair (discuss with a partner), and then share ideas with the whole class.

**Values Continuum**

The teacher asks students to place themselves on a continuum (a piece of tape across the floor of the classroom) from strongly agree to strongly disagree in response to a teacher-presented statement. Students at various points on the continuum share and support their beliefs.

**Voting cards**

Voting cards are tools students can use to signal degrees of understanding. Typically, teachers give each student a set of colored voting cards. During instruction, the teacher asks students to use their cards to show their response to teacher statements. When students agree with a statement, they hold up a green card. When they disagree, they hold up a red card. And if they are unsure, they hold up a yellow card.

**Work-Along**

Students use this tool—a teacher-prepared collection of lesson or unit objectives with corresponding assignments and activities—to monitor and track their learning on an ongoing basis.