

Effective Processing & Summarization Techniques

- A. **3-2-1** – Teachers ask students to write three of something, two of something, then one of something. For example, students might explain three things they learned in the lesson that they hadn't known before, two areas in which they are still confused, and one way the topic can be applied to (choose any area), or one thing about which they'd like to know more. The criteria for listing items at each level are up to the needs of the teacher and the lesson, but it's important to make the category for listing three items easier than the category for listing one item.
- B. **Carousel Brainstorming** – Posters with words and topics about the lessons ahead (or past) are displayed around the room. Students move to each poster and record their response to whatever is written on the poster.
- C. **Exclusion Brainstorming** – The teacher writes the topic on the overhead or chalkboard followed by a series of words, some of which fit with the topic and others that do not fit with the topic. Students draw a line through the excluded words and circle those that relate to the topic. Students explain why they excluded and included certain words. This can be done prior to reading or afterwards.
- D. **Exit Cards** – Before leaving class, students write responses to three or four questions on index cards or half-sheets of paper. The questions review core understandings from the lesson. Sample: *What are the major phases of mitosis?* The cards are used for diagnosis and planning for the next class.
- E. **Graphic Organizers** – Students complete teacher-designed organizers or create their own.
- F. **Human Body or Stick Figure Outline** – Students do a life-sized outline of the body of one member of their table group, then draw in “Characteristics or <insert topic of the lesson>” in the corresponding locations on the body. For instance, you may want to focus on characteristics of a good writer, reader, scientist, mathematician, artist, historian, or citizen. You may want to examine systems of government, math concepts, art techniques, or types of circuitry. Parts of the body symbolize the attributes of the topic. For example, how is each of the following body parts like the checks and balances of the U.S. government? – hand, heart, mind, legs, feet, stomach, lungs, blood, ears, joints, mouth, skin, circulatory system, endocrine system. If time, materials, and groupings don't allow for the large body outlines, students can draw stick figures and do the same thing in groups or as individuals.
- G. **Jigsaws** – A larger grouping of material is broken into component pieces. Individuals or small groups study different pieces, the report their findings to the whole group. By the time all individuals or groups have shared, everyone has the complete picture.
- H. **Luck of the Draw** – Each day, students re-write their notes or learning from the lesson in preparation for summarizing for the class tomorrow. Then, in tomorrow's

class, the teacher pulls one name from a hat to read his or her summarization and facilitate a short review before the day's new learning.

I. **PQRST** – Used for expository reading. Sequence:

P – Preview to identify main parts

Q – Develop questions to which you want to find answers

R – Read the material

S – State the central idea of theme

T – Test yourself by answering questions (or Teach the material to someone else)

J. **Test Notes** – Students record all they know about the topic on one slide of one 3 X 5 index card. Decide whether or not they are allowed to use those index cards as they take the test.

K. **Think-Pair-Share** – Students think individually using art, writing, or just sitting quietly about a topic or an issue, and then share their thinking with a partner. Partners then offer two or three salient points to the larger class that came from their sharing.

L. **Word Splash** – Identify a content reading piece you want students to read and study. Determine the key facts, words, and concepts you want students to learn as a result of experiencing the material. Then “splash” those words across a sheet of paper by writing them at cockeyed angles all over the sheet. You might want to carry a bucket containing the words written on poster-board, trip as you cross the room, and let the words scatter across the floor or desktops. Ask the students to help you put them back together. Give either each table group or individual student a copy of the words and ask students to put the words together so that they make sense. Wild connections will be made, especially since it's new material and students have no frame of reference. Once done, pass out the content reading material and ask students to read it, looking for the relationship among the key facts, words, and concepts. Ask them to see if their initial understanding was correct. Then, as small groups or individually, students arrange the words properly, and share their new sequence of connections with the class. The class decides if a particular group's (or individual's) interpretation of the content is correct or if it needs revision. Word splash is based on an idea from Dorsey Hammond, Professor in Reading and Language Arts at Oakland University in Rochester, MI.

M. **SQ3R** – Survey, Question, Read, Recite, Review

N. **Visualization (Guided Imagery)** – In depth, detailed descriptions of processes, a moment in the life of ____, observations of ____, living among ____, and so on done while students sit quietly, eyes closed, trying to imagine the events unfolding as described.

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O. **Save the Last Word for Me** – Students sit in groups of 4 to 6. Everyone reads a chapter or article independently, marking sentences with which they disagree or

agree, or to which they want to add or delete something, or otherwise generate a response in them. Once everyone is done, the first person reads one of his marked sentences without offering any response to it. In turn, each member of the group makes a response to that line. The originator of the statement, the first student, makes his response only after everyone else has contributed, thereby leaving the last word for him. Once someone has used a sentence from the reading, it may not be used again as the originating sentence.

- P. **Bloom's Taxonomy Summary Cubes** – Students make paper or poster board cubes. On each side, students emphasize one of Bloom's Taxonomy levels in response to the learning experience, reading, presentation, field trip, lab, or lecture. The teacher provides multiple prompts for each level on a separate sheet of paper so students have a menu from which to draw ideas. Taxonomy: Recall, Comprehension, Application, Analysis, Synthesis, Evaluation.
- Q. **Point of View** – Retell a story, an account of a scientific, mathematical, or manufacturing process, a moment in history, a chemical's reaction, or a concerto's performance from an unusual point of view, incorporating the essential facts and concepts just learned. Manipulating the information for a particular viewpoint requires students to distill and review the critical attributes.
- R. **Webs/Mind maps/Cluster Drawings** – Don't forget the labels!
- S. **Double-Entry Journals** – Students record notes and learning on the left side of an open notebook. On the right, the teacher has them apply and/or practice the learning. Example: Facts and drawings associated with parallel and series circuit design are recorded on the left side while the teacher is presenting the material. After the presentation, students draw three parallel and three series circuits using a variety of switches and light bulbs as indicated by the teacher. All circuits must result in a lit bulb. Below these drawings, students draw examples of series and parallel circuits that will not result in a lit bulb, with written explanations as to why they won't work. In English class, students record information on plot profile on the left page, then do a real plot profile for the story just read on the right. Grammar rules on the left page, examples and non-examples on the right.
- T. **Rules-Based Summaries** – When rewriting text in summary form, do four things:
1. Get rid of trivia that is not necessary.
 2. Get rid of anything that is repetitive or redundant.
 3. Replace specific terms with general terms – Example: “flying insects” for “flies, mosquitoes, moths, and honeybees.”
 4. Create a topic sentence for the information – This is the subject and the assertion the author makes about it.
- [from Brown, Campione, Day, 1981]