

High Yield Strategies / Best Practices in the Classroom

GLOSSARY OF TERMS

Brainstorming: **Brainstorming** is a group facilitation technique designed to generate a large number of ideas for the solution to a problem. The method was first published in a book called *Applied Imagination* by Alex Osborn. Osborn proposed that groups could double their creative output by using the method of brainstorming.

Concept Maps: A **concept map** is a diagram that shows the relationships among concepts. Within a concept map, concepts are often connected with labeled arrows. The relationship between concepts is represented by linking phrases. For example, two concepts might be linked by an arrow which reads "gives rise to", "results in", "is required by," or "contributes to". **Concept mapping** is a technique for visualizing the relationships between different concepts.

Communicating Learning: **Communicating learning** is observed when students are able to tell others what it is they have learned. Often seen at the synthesis level (the highest level of Blooms taxonomy), students should be able to **communicate learning** in their own words to demonstrate a thorough understanding of a concept or lesson.

Cooperative Learning: In **cooperative learning** environments, students interact in purposely structured heterogeneous groups to support their own learning as well as the learning of others in the same group. **Cooperative learning** explicitly builds cooperation skills by assigning roles to team members and establishing norms for conflict resolution. **Cooperative learning** should also provide the means for group reflection and individual self-assessment.

Generating/Testing Hypothesis: A **hypothesis** is an idea that requires evaluation. For proper evaluation, the framer of a **hypothesis** needs to define specifics they are examining. A **hypothesis** requires more work by the researcher in order to either confirm or disprove it. Any useful **hypothesis** will enable predictions by reasoning (including deductive reasoning).

Graphic Organizers: **Graphic organizers** are visual representations of knowledge, concepts or ideas. They are known to help provide motivation, enhance recall, clarify information, and promote understanding. Examples can include: storyboards, charts, Venn diagrams, story webs, and flowcharts.

Hands –on Practice Manipulatives: A **hands-on practice manipulative** is an object which is designed so that the student can learn some concept by manipulating it. The use of manipulatives provides a way for children to learn concepts in developmentally appropriate, hands-on ways.

Homework/Practice: The basic objective of assigning homework or practice to students is to improve the abilities and skills of the students. Homework and practice should be designed to reinforce what students have already learned, prepare them for upcoming lessons, extend what they know by having

them apply it to new situations, or integrate their abilities by applying many different skills to a single task.

Identifying Similarities/Differences: **Identifying similarities and differences** have been identified as foundational to human thought, the core of all learning. When a learner is introduced to a concept, prior knowledge is activated. There are four key ways to **identify similarities and differences**: compare; classify; create metaphors (An apple is like a banana because), and create analogies (inches are to feet as ounces are to cups).

KWL: **KWL** is a graphical organizer designed to help in learning. The letters **KWL** are an acronym for "what we know", what we want to know, and "what we learned". A **KWL** table is typically divided into three columns. The first two columns, "What we know," and "What we want to know" can be completed by a class at the beginning of a lesson cycle. The final column, "What we learned," would be completed at the end of a lesson.

Nonlinguistic Representations: **Nonlinguistic representations** refer to all descriptions evoked without using words. By invoking imagery, teachers can assist learners in creating meanings that are more fully developed than learning created only through words. Examples of nonlinguistic representations include: creating graphic representations; making physical models; generating mental pictures; drawing pictures; and engaging in kinesthetic activity.

Projects, Demonstrations, Modeling, Labs: One of the keys to student engagement is involving students the doing of the work. By engaging students in **projects, demonstrations, modeling, and labs**, students are able to interact with their own learning. As an additional benefit, students whose primary learning style is not auditory will be more likely to interact with and recall meaning, which they helped to create.

Reinforcing Effort/Providing Recognition: Not all students believe that their effort plays a direct role in their achievement. They may instead believe their grades are a reflection of raw intelligence. By explaining to students the importance of effort, and reinforcing that effort from students, teachers can directly impact student achievement. An example of **reinforcing effort** would be to ask students to rate themselves on a 1-5 Likert Scale as to how much effort they put into a given task. **Providing recognition** to students in the form of effective praise has been shown to be even more effective than providing tangible rewards. Some of the characteristics of effective recognition is that it is specific, it communicates the value of the student's work, and it attributes success to the effort the student put into the work.

Setting Objectives/Providing Feedback: The **objective sets** the direction for learning. When teachers clearly explain where the learning is headed, they are more likely to help students understand and retain both short and long-term learning goals. **Providing feedback** helps learners to understand their progress in mastering learning objectives. Research has shown that in order for feedback to be meaningful, it must be corrective, timely, and specific. Ideally, students should be included in this process as they self-assess their own work in addition to receiving teacher feedback.

Small Group Instruction: The use of **small group instruction** is widely acknowledged as an effective method to activate student interest and promote collaboration. Small group instruction differs from cooperative learning in that small group instruction involves the teacher working directly with a small group of students to remediate, instruct, or extend student learning.

Solving Problems (Multiple Ways): **Problems and solutions** can be approached in multiple ways: Symbolically, graphically, numerically, verbally, etc. By providing students with multiple solution strategies, teachers provide learners with choices which the students can then apply to their own learning. Allowing students to represent problems and solutions in ways which are meaningful to them enhances their interaction with the problem.

Step Vocabulary Process: Instead of giving students a list of words to memorize, the **step vocabulary** method introduces academic terms in a multi-step process. For example, in identifying the new word, the teacher might ask students what they might already know about the word. Later, the teacher will explain the meaning of the word. Students may be given the opportunity to generate their own explanation of the word, and/or graphically represent the word. Finally, students can play games or engage in activities that help crystallize their understanding and memory of the word.

Story Mapping: Story maps are visual representations of the parts of a story. While story maps differ in content, most will include common factors, such as the setting, the characters, the problem, the plot and the conclusion. Story maps help students to visualize the story and organize their thoughts as a first step in the writing process.

Summarizing/Note Taking: In order to effectively **summarize**, students need to be able to delete trivial or redundant material; create categories to group subordinate terms, and create topic sentences. A compliment to summarizing is the skill of **note taking**. One of the more common uses for note taking is to utilize notes in studying for exams. To maximize this usefulness, notes should be viewed as a work in progress, continuously reviewed and revised throughout the lesson cycle.

Wait Time: Allowing learners time to interact and respond to a concept can be a crucial part of a student's learning. While there may be some disagreement on how much time is too long or too short to wait for student responses, practitioners agree that too much or too little wait time can diminish student interaction with a lesson.

Word Walls: A **word wall** is literacy tool composed of an organized collection of words which are displayed in large visible letters on a wall, bulletin board, or other display surface in a classroom. The **word wall** is designed to be a tool for students to use, not just a display, and contains a list of words that can be used to reinforce vocabulary.

Portions of the definitions above were drawn from Wikipedia.org; *Classroom Instruction that Works*, by Robert Marzano et al., and *Building Academic Vocabulary*, by Robert Marzano et al.