

MARZANO'S LIST

Researched based strategies that dramatically increase student learning

Identifying similarities and differences: (effect size)

- Use diagrams / charts to compare items
- Have students compare by creating metaphors and analogies

Summarizing & note taking:

- Provide a process for creating a summary (explicitly teach this)
- Explicitly teach how to take notes
- Teach students to question what is unclear
- Have them predict what will happen next in the “lecture” or text.

Reinforcing effort and providing recognition:

- Give historical examples of people who succeeded by not giving up.
- Students keep a log of their weekly efforts and achievements, reflect on it periodically, and analyze the data.
- Recognition is most effective if it is based on the achievement of a standard. (Rubrics, NJCCCS, xxxbar, etc)
- Symbolic recognition works better than tangible rewards.
- Give “goofy” / fun awards for individual accomplishments.

Homework and practice*

- Establish a homework policy 1) keep a consistent schedule, 2)- set a time limit, 3)- parents must know policy
- Students should know if homework is for practice or preparation.
- Assign timed quizzes for homework and review their speed and accuracy.
- Practice difficult concepts in class and not for homework
- Homework is best when used for success and over-learning

Nonlinguistic representations

- Knowledge is stored in two forms: linguistic and visual.
- Use of nonlinguistic representations stimulates / increases brain activity.
- Use words and symbols to represent new learning and concepts
- Use visuals, field trips and physical movement to represent information.
- Increases memory retrieval (factorial impact of additional places in the brain)

Cooperative learning

- Explicitly teach rules and roles
- Teach social skill as needed
- Require both personal and group responsibility

Setting objectives and providing feedback

- A stated objective provides students with direction for their learning.
- Encourage students to personalize a unit's goals. (Set personal objectives)
- Using a KWL chart gets students thinking and actively involved in goal setting.
- Rapid feedback generally produces positive results. (Classical conditioning)
- Make feedback corrective in nature; tell students how they did in relation to

specific standard. Rubrics are a great way to do this.

- Keep feedback timely and specific.

Generating and testing hypotheses

- A deductive approach (using a general rule to make a prediction) promotes much student learning.
- Students learn when they are asked to predict what would happen if an aspect of a familiar system, such as the government or particular law, were changed.

Cues, questions, and advance organizers

- Cues, questions, and advance organizers are most effective when

presented before a learning experience. Patterns (like bloom's Taxonomy) help you to ask many Q.

- Use wait time after asking a question. Doing so will increase the depth of your students' thinking and answers.
- Vary the style of advance organizer used: Tell a story, skim a text, or create a graphic image.

Source: Adapted from [*Classroom Instruction That Works*](#) by R. J. Marzano, D. J. Pickering, and J. E. Pollock, 2001, Alexandria, VA: ASCD.