Marzano's Instructional Strategies That Work
Cross Referenced with Learning Theories by Janine Lim

Guiding Questions	Strategies That Work	Generalizations	Classroom Recommendations	Learning Paradigm	Learning Theories
What will students learn?	Setting Objectives	1. Setting instructional goals narrows what students' focus on. 2. Teachers should encourage students to personalize the learning goals the teacher has identified for them. 3. Instructional goals should not be too specific.	1. Set learning objectives that are specific but flexible. 2. Allow students flexibility in personalizing the learning objectives or goals. 3. Communicate the learning objectives or goals to students and parents. 4. Contract with students to attain specific learning objectives or goals.	Humanism – focus on goals	Keller - Attention, Relevance, Confidence, Satisfaction (ARCS) Model of Motivational Design…. Particularly Relevance, Learner Control, Choice
Which strategies will provide evidence of student learning?	Providing Feedback	1. Feedback should be corrective in nature. 2. Feedback should be timely. 3. Feedback should be specific to a criterion. 4. Students can effectively provide some of their own feedback.	1. Use criterion-referenced feedback. 2. Focus feedback on specific types of knowledge. 3. Use student-led feedback.	Humanism, focus on motivation	Keller - Attention, Relevance, Confidence, Satisfaction (ARCS) Model of Motivational Design…. Particularly Feedback& Satisfaction
	Providing Recognition	1. Rewards do not necessarily have a negative effect on intrinsic motivation. 2. Reward is most effective when it is contingent on the attainment of some standard of performance. 3. Abstract symbolic recognition is more effective than tangible rewards.	1. Personalize recognition. 2. Use the Pause, Prompt, and Praise strategy. 3. Use concrete symbols of recognition.	Humanism, focus on motivation	Keller - Attention, Relevance, Confidence, Satisfaction (ARCS) Model of Motivational Design…. Particularly Satisfaction
Which strategies will help students	Cues, Questions, and Advance	1. Cues, questions, and advance organizers should focus on what is important rather than what is	1. Use expository advance organizers. 2. Use narrative advance organizers. 3. Teach students skimming as a form	Cognitivism	Schema theory of learning (Anderson, 1977)

acquire and integrate learning?	Organizers	unusual. 2. "Higher level" questions and advance organizers produce deeper learning than "lower-level" ones. 3. Advance organizers are most useful with information that is not well organized. 4. Different types of advance organizers produce different results. 5. Waiting briefly before accepting responses from students has the effect of increasing the depth of students' answers. 6. Questions are effective learning tools even when asked before a learning experience.	of advance organizer. 4. Teach students how to use graphic advance organizers. 5. Use explicit cues. 6. Ask questions that elicit inferences. 7. Ask analytic questions.		Advanced Organizers (Subsumption Theory) (Ausubel 1960)
	Nonlinguistic Representation	1. A variety of produce nonlinguistic representation. 2. The purpose of nonlinguistic representation is to elaborate on knowledge.	1. Use graphic organizers to represent knowledge. 2. Have students create physical models of the knowledge. 3. Have students generate mental pictures of the knowledge they are learning. 4. Use pictures or pictographs to represent knowledge. 5. Have students engage in kinesthetic activities representing the knowledge.	Constructivism	Constructivism (Bruner) – Students actively construct or create their own subjective representations of objective reality.
	Summarizing and Note Taking	1. To effectively summarize, students must delete some information, substitute some information, and keep some information. 2. To effectively delete, substitute, and keep information, students must analyze the information at a fairly deep level. 3. Being aware of the explicit	1. Verbatim note taking is perhaps the least effective way to take notes. 2. Notes should be considered a work in progress. 3. Notes should be used as study guides for tests. 4. The more notes that are taken, the better.	Constructivism	Constructivist Learning Environments (Jonassen). Scaffolding learning & cognitive tools.

		structure of information is an aid to summarizing information. 1. Teach students the rule-based summarizing strategy. 2. Use summary frames. 3. Teach students the reciprocal teaching strategy.	1. Give students teacher-prepared notes. 2. Teach students a variety of note-taking formats. 3. Use combination notes.		
	Cooperative Learning	1. Organizing groups based on ability levels should be done sparingly. 2. Cooperative learning groups should be rather small in size. 3. Cooperative learning should be used consistently and systematically but should not be overused.	1. Use a variety of criteria to group students. 2. Use informal, formal, and base groups. 3. Keep the groups to a manageable size. 4. Combine cooperative learning with other classroom structures.	Constructivism	Social constructivism (Vygotsky)
	Reinforcing Effort	1. Not all students realize the importance of believing in effort. 2. Students can learn to operate from a belief that effort pays off even if they do not initially have this belief.	1. Explicitly teach students about the importance of effort. 2. Have students keep track of their effort and achievement.	Cognitivism	Self-theories (Dweck, 1999). Incremental view. "intelligence is malleable and can be increased through effort" Attribution Theory (Weiner). Locus of control – working to teach students to have internal locus of control.
Which strategies will help students practice, review, and apply learning?	Identifying Similarities and Differences	1. Presenting students with explicit guidance in identifying similarities and differences enhances their understanding of and ability to use knowledge. 2. Asking students to independently identify similarities and differences enhances their understanding of and ability to use knowledge.	1. Teach students to use comparing, classifying, metaphors and analogies when they identify similarities and differences. 2. Give students a model of the steps for engaging in the process. 3. Use a familiar context to teach students these steps. 4. Have students use graphic organizers	Constructivism	(Bruner) The learner is an information constructor. People actively construct or create their own subjective representations of objective reality. New information is linked to to prior knowledge, thus mental representations are

		3. Representing similarities and differences in graphic or symbolic form enhances students' understanding of and ability to use knowledge. 4. Identification of similarities and differences can be accomplished in a variety of ways and is a highly robust activity.	as a visual tool to represent the similarities and differences. 5. Guide students as they engage in this process. Gradually give less structure and less guidance.		subjective.
	Homework and Practice	1. The amount of homework assigned to students should be different from elementary to high school. 2. Parental involvement in doing homework should be kept to a minimum. 3. The purpose of homework should be identified and articulated. 4. If homework is assigned, it should be commented upon. 1. Mastering a skill or process requires a fair amount of focused practice. 2. While practicing, students should adapt and shape what they have learned.	1. Establish and communicate a homework policy. 2. Design homework assignments that clearly articulate purpose and outcome. 3. Vary approaches to providing feedback. 1. Ask students to chart their speed and accuracy. 2. Design practice assignments that focus on specific elements of a complex skill or process. 3. Plan time for students to increase their conceptual understanding of skills or processes.	Associated Learning Theory	Merrill's First Principles of Instruction. Practice, guided practice, knowledge applied by the learner.
	Generating and Testing Hypotheses	1. The generating and testing of hypotheses can be approached in an inductive or deductive manner. 2. Teachers should ask students to clearly explain their hypotheses and	1. Make sure that students can explain their hypotheses and conclusions. 2. Use a variety of structured tasks to guide students through generating and testing hypotheses.	Constructivism	Discovery Learning (Bruner) - learner draws past experience and existing knowledge; interact with the world by

		their conclusions.		Humanism	exploring and manipulating objects, wrestling with questions and controversies, or performing experiments; inquiry based constructivism Problem based learning for one of the structured tasks Kolb (1984) learning cycles: active experimentation; also observe, think, plan cycle

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