

An Overview of Marzano's High Yield Strategies

Identifying Similarities and Differences

Identifying similarities and differences is an umbrella category for four instructional strategies that ask students to identify how two or more things are similar and different. These strategies provide students with opportunities to think about the content and relationships in the content in new ways.

The four specific instructional strategies in this category are:

- Comparing
- Classifying
- Creating or recognizing metaphors
- Creating or recognizing analogies

Summarizing and Note-Taking

Summarizing and note-taking are more than good study skills. They not only enable students to identify important concepts, but they facilitate deeper understanding of academic content due to the analytical thinking that these skills demand. Students benefit from the explicit teaching of these skills

Reinforcing Effort and Providing Recognition

Reinforcing effort and providing recognition are two instructional strategies that are connected to students' attitudes and beliefs. In contrast to the other strategies, these do not focus on the cognitive skills of students, but instead are used to empower students to learn and to help students see the connection between the effort they put forth and achievement.

Homework and Practice

These two instructional practices provide students with opportunities to deepen their understanding and skills and extend learning beyond the school day. In particular, they highlight methods for assigning homework and practice that research has shown to be most effective. Homework extends learning opportunities outside of the classroom, giving students the chance to practice, review, and apply knowledge. Practice provides students the time and repetition necessary for them to become fluent in a skill or process.

Nonlinguistic Representations

Knowledge is stored in two forms: one form is linguistic, or language based; and the other is nonlinguistic, or image based. Research shows that the more students store and represent knowledge in both forms, the better they are able to think about, recall, and elaborate on knowledge. This category includes five strategies that teachers and students can use to help students represent knowledge nonlinguistically: using graphic organizers, drawing pictures or pictographs, creating mental images, using physical models, and doing activities that involve physical movement.

Cooperative Learning

Cooperative learning, falls within the more general category of "grouping" strategies that teachers can use. Done properly, organizing students into cooperative learning groups has a powerful effect on learning. Cooperative learning also has other benefits for students, including an improvement in communication, decision making, and conflict-resolution skills. There are specific elements of cooperative learning that distinguish this kind of group work from other forms and several approaches that teachers can use in the classroom.

Setting Objectives and Providing Feedback

This strategy establishes a direction for learning and provides students with information on their progress toward that goal. Applied by both teachers and students, setting objectives and providing feedback can help students focus, engage more deeply in what they are learning, and improve their understanding. Setting objectives helps students understand that activities are related to specific learning goals. Providing feedback helps students understand how they are progressing toward the goals that have been set.

Generating and Testing Hypotheses

Generating and testing hypotheses is an instructional strategy that requires students to apply their knowledge and to use higher-level thinking skills by asking questions about what they know, finding ways to test those questions, and then explaining their conclusions. Although this strategy is most often used in science, it can be applied to all subject areas. There are six different tasks that can guide students through generating and testing hypotheses:

- Systems analysis
- Problem solving
- Decision making
- Historical investigation
- Experimental inquiry
- Invention

Cues, Questions, and Advanced Organizers

Cues, questions, and advance organizers are all techniques that teachers can use to help students activate their prior knowledge about a topic. Research shows that activating prior knowledge is an important first step in the learning process and prepares students to relate the new knowledge to what they already know. These techniques can also be used to help students organize information and see patterns. There are several methods that teachers can use, including explicit cues, questions that elicit inferences, questions that ask students to analyze information, and the use of advance organizers.