

MARZANO DESIGN QUESTION 2: HELPING STUDENTS INTERACT WITH NEW KNOWLEDGE

Design Question 2 is the first of three design questions within the Lesson segment that addresses content. It consists of the following elements:

Identifying Critical Information. Through critical input experiences (i.e., lecture, simulation, lab, demonstration) teachers let students know which information is important.

Organizing Students to Interact with New Knowledge. We know that students learn better in small groups. It is important that students understand the group processes needed to ensure that groups run successfully.

Previewing New Content. Teachers link new knowledge to previously learned knowledge through a preview activity. Commonly used preview strategies include KWLs and anticipation guides. Their purpose is to activate prior knowledge and give teachers an idea of what students know so they can chunk the information appropriately.

Chunking Content into “Digestible Bites.” It is important to give students the right amount and complexity of information. Students need enough information so they can process it, but not so little that they lose interest. Like eating a good steak, you don’t put the whole thing in your mouth; you cut it up and eat it one bite at a time!

Processing New Information. Students use macro-strategies to analyze and synthesize each chunk of information so it will connect with previous knowledge and be stored in long term memory. Macro-strategies are combinations of thinking skills like questioning, clarifying, predicting, sequencing, and summarizing.

Elaborating on New Information. Teachers ask questions that lead students to draw inferences to the newly processed information. Inferences are usually drawn from the students’ past experiences or text clues. This allows students to make more connections with the new information and strengthens their ability to recall and comprehend it.

Recording and Representing Knowledge. Students use linguistic or nonlinguistic representations to depict their understanding of the new knowledge. By taking such notes later in the process, as opposed to the first time they hear it, they are able to summarize and obtain a more accurate understanding of what they are learning.

Reflecting on Learning. At the end of the process students take the time to think about and reflect on what they have learned and/or the thinking process they used to learn it (metacognition).

MARZANO DESIGN QUESTION 3: HELPING STUDENTS PRACTICE AND DEEPEN NEW KNOWLEDGE

Design Question 3, Helping Students Practice and Deepen New Knowledge, involves teaching students to use more advanced thinking skills. Students move from using retrieval and comprehension skills to analysis of the new knowledge. Students break the concept down and can match, classify, analyze errors, generalize, and specify, and, in doing so, deepen their understanding of new knowledge. Design Question 3 consists of the following elements:

Reviewing Content. The teacher links back to what students learned in Design Question 2 so that students can move forward to deepen their knowledge.

Organizing Students to Practice and Deepen Knowledge. The teacher organizes students into groups and understands the processes needed for group members to extend their learning.

Using Homework. Teachers use additional time to allow students to practice procedural knowledge or continue to review and revise declarative knowledge. It is important that students understand the purpose of homework and can complete it.

Examining Similarities and Differences. Used more often with declarative knowledge, this strategy involves helping students use comparison classification, analogy, and metaphor to deepen their knowledge.

Examining Errors in Reasoning. One of the least understood elements, this strategy is used with declarative knowledge and sometimes with procedural knowledge. Students learn to determine whether statements of claim are true, or can follow the logic or reasoning used to reach a conclusion. With procedural knowledge, instead of focusing on whether the answer is correct, the teacher and students focus on the steps or procedures used to arrive at the answer.

Practicing Skills, Strategies, and Processes. This element is used more often for procedural knowledge and involves having students practice in order to develop fluency or automaticity. The gradual release model, “I do, we do, you do,” is often used.

Revising Knowledge. Teachers encourage students to look at how they now view the new knowledge. After deepening or practicing, they should have a better understanding of what they have learned.

Source: Learning Sciences Marzano Center. (2013, April). The Marzano teacher evaluation model. https://www.marzano-center.com/wp-content/uploads/sites/4/2019/04/MC18-05_Marzano_Teacher_Evaluation_Model_2013.pdf