Research-Based Learning Strategies

|  | What is it? | Why? | Classroom Strategies |
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| Retrieval | * Recalling or remembering knowledge from memory.
 | * Provides the basic understanding needed to think, analyze, and problem-solve.
 | * Give a quiz after 15 minutes of instruction.
* Read a passage, then write down everything learned from memory.
* Play a game that uses the content.
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| Generation | * Attempting to answer a question, solve a problem, or predict an outcome BEFORE being shown the answer or solution.
 | * Makes the mind more receptive to learning new information.
 | * Give a pretest.
* Fill in missing content.
* Play a game to introduce new content.
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| Elaboration | * The process of finding additional layers of meaning in new material.
 | * Improves understanding of new material and multiplies the neural pathways available for later recall and application of content.
 | * Explain something in your own words.
* Metaphors or mental imaging.
* Teach/explain something to others and answer their questions.
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| Reflection | * Taking time to think about what has been learned, asking “What went well?” and “How could I have done this better?”
 | * Creates an understanding of the experience so that it can be applied in the future.
 | * Debrief a learning activity.
* After playing a game, ask students to think about what they were thinking and feeling during the game.
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| Spacing | * Studying information more than once with time between each study period.
 | * Forgetting and relearning strengthens memory and proficiency.
 | * Study a small amount every day.
* Spread out content to be learned on different days and in different contexts.
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| Interleaving | * Studying more than one type of content at a time.
* Mixing related but distinct material during study.
 | * Improves the ability to discriminate between characteristics, which allows the learner to apply the correct solution.
 | * Mix up units or problem types.
* Add test questions from previous tests with each new unit test.
* Play learning games that include mixed or previous content.
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| Variety | * Using a variety of instructional strategies that directly support the desired learning outcomes.
 | * Meets the learning needs and preferences of students in a diverse population.
 | * Use a variety of instructional strategies: cooperative learning, role play, discussion, simulation, project-based learning, quizzes, games, puzzles, multi-media, etc.
* Use the best strategy to achieve the desired learning outcome.
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