

FOUR POSSIBLE LEARNING EVENTS

	Unproductive Failure	Unproductive Success	Productive Success	Productive Failure
Type of learning event	Unguided problem solving without further instruction	Rote memorization without conceptual understanding	Guided problem solving using prior knowledge and tasks planned for success	Unsuccessful or suboptimal problem solving using prior knowledge, followed by further instruction
Learning outcome	Frustration that leads to abandoning learning	Completion of the task without understanding its purpose or relevance	Consolidation of learning through scaffolded practice	Learning from errors and ensuring learners persist in generating and exploring representations and solutions
Useful for ...			Surface learning of new knowledge firmly anchored to prior knowledge	Deep learning and transfer of knowledge
Undermines ...	Agency and motivation	Goal setting and willingness to seek challenge		
Promotes ...			Skill development and concept attainment	Use of cognitive, metacognitive, and affective strategies

Source: Frey, Hattie, & Fisher (2018).