

Answer Key: Your Cognition Case File: The 12th Grade Memory Analysis Quiz

Examine how expert performance, traumatic amnesia, and cognitive biases shape human behavior through the lens of psychology's most complex mental frameworks.

1. A professional chess player can recall the positions of pieces on a board much more accurately than a novice, but only if the pieces are placed in a logically valid game state. This phenomenon best demonstrates which cognitive process?

Answer: B) Chunking based on existing schemata

Expertise allows individuals to group information into meaningful units (chunks) based on prior knowledge (schemata), significantly increasing working memory capacity.

2. Anterograde amnesia, often seen in patients like the famous case of H.M., prevents the formation of new explicit memories while typically leaving implicit memory formation intact.

Answer: A) True

Damage to the hippocampus usually disrupts the consolidation of declarative facts (explicit), but patients can still learn new motor skills (implicit) through the cerebellum and basal ganglia.

3. When an individual relies on the first piece of information they receive (such as an initial price offer) to make subsequent judgments, they are falling victim to the _____ heuristic.

Answer: C) Anchoring and Adjustment

The anchoring heuristic describes the human tendency to rely too heavily on the first piece of information offered when making decisions.

4. Which of the following scenarios best illustrates the 'Misinformation Effect' studied by researchers like Elizabeth Loftus regarding witness testimony?

Answer: C) Incorporating suggestive wording from a lawyer into one's own memory of a crime.

The misinformation effect occurs when post-event information interferes with the original memory, leading to the creation of false or distorted memories.

5. The cognitive tendency to search for, interpret, and favor information that confirms one's pre-existing beliefs while ignoring stay-away evidence is known as _____.

Name: _____

Date: _____

Answer: B) Confirmation bias

Confirmation bias is a significant cognitive obstacle that prevents objective reasoning by filtering out contradicting evidence.

6. The 'Method of Loci' is a mnemonic strategy that utilizes spatial memory and visual imagery to improve the encoding and retrieval of information.

Answer: A) True

Also known as the memory palace technique, this strategy involves mentally placing items to be remembered in specific physical locations.

7. When solving a complex physics problem, a student breaks the goal into smaller sub-goals and analyzes the difference between their current state and the desired solution. This problem-solving strategy is called:

Answer: A) Means-ends analysis

Means-ends analysis is a heuristic where the solver reduces the discrepancy between the current situation and the goal through intermediate steps.

8. The psychological phenomenon where people fail to see an object as having a function other than its usual one (e.g., failing to use a shoe as a hammer) is called _____.

Answer: B) Functional fixedness

Functional fixedness is a cognitive bias that limits a person to using an object only in the way it is traditionally used, hindering creative problem-solving.

9. According to the Levels of Processing theory, shallow processing (like focusing on font size) leads to better long-term retention than semantic processing.

Answer: B) False

Levels of Processing theory suggests that deep, semantic (meaning-based) encoding leads to much stronger and more durable memory traces than shallow, structural encoding.

10. If you struggle to recall your old phone number because your new phone number keeps coming to mind, you are experiencing:

Answer: B) Retroactive interference

Name: _____

Date: _____

Retroactive interference occurs when new learning (the new number) disrupts the recall of old information (the old number).