

TeachME Professional Development

Exploring Neuroeducation

1. Neuroeducation is a combination of what three disciplines?

- A. Neurology, education (pedagogy), and sociology
 - B. Education (pedagogy), neuroscience, and psychology
 - C. Education (pedagogy), physiology, and neuroscience
 - D. Psychology, neuroscience, and social work
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2. An individual's genetic makeup, personal experiences, and freewill change the anatomy of the brain. Which principle does this statement support?

- A. Principle 3: New learning is influenced by prior experiences
 - B. Principle 6: There is no new learning without some form of memory and attention
 - C. Principle 1: Human brains are as unique as human faces
 - D. Principle 2: Each person's brain is differently prepared to learn different tasks
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3. In math class, Jessica is trying to remember the steps for long division, while completing a long division problem. What mental process is Jessica using?

- A. Self-Regulation
 - B. Working memory
 - C. Social-emotional functioning
 - D. Rehearsal
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4. While a student's attention brings in the information, it is their memory that makes the information meaningful and relevant. What principle does this statement support?

- A. Principle 6: There is no new learning without some form of memory and attention
 - B. Principle 2: Each person's brain is differently prepared to learn different tasks
 - C. Principle 1: Human brains are as unique as human faces
 - D. Principle 3: New learning is influenced by prior experiences
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5. Which neuroeducation discipline focuses on the art and science of the teaching and learning process?

- A. Psychology
 - B. Neuroscience
 - C. Education
 - D. This does not describe any of the disciplines.
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6. Mr. Parsons noticed that one of his students seemed nervous and restless during his lesson. The following day this student did poorly on the test. This scenario is an example of what?

- A. Hunger impacts learning
 - B. Emotions impact learning
 - C. Multisensory teaching
 - D. Lack of motivation impacts learning
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7. Which brain network deals with executive function?

- A. Executive control network
 - B. Salience network
 - C. Default Mode Network
 - D. Primacy-Recency Effect
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8. All brains are not equal because context and ability influence learning. Which principle does this statement support?

- A. Principle 1: Human brains are as unique as human faces
 - B. Principle 3: New learning is influenced by prior experiences
 - C. Principle 6: There is no new learning without some form of memory and attention
 - D. Principle 2: Each person's brain is differently prepared to learn different tasks
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9. Which network is activated during resting-awake states, including “tasks that involve internally directed, interpretive, and reflective thought, for example when remembering past experiences,

- A. Salience network
 - B. Default Mode Network
 - C. Executive control network
 - D. Psychosocial network
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10. Which neuroeducation discipline focuses on the brain's development, structure, and function?

- A. Neuroscience
 - B. Psychology
 - C. Education
 - D. Neuropsychology
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11. Our mind learns and makes sense of experiences by finding old patterns to relate to before creating new ones. Which principle does this statement support?

- A. Principle 6: There is no new learning without some form of memory and attention
- B. Principle 1: Human brains are as unique as human faces
- C. Principle 5: The brain is plastic

D. Principle 3: New learning is influenced by prior experiences

12. Mr. Parsons is reviewing decimal places with his sophomore class. In addition to presenting the material through Slides, he is having students work with base ten blocks to reinforce concepts. Which teaching strategy is Mr. Parsons implementing?

- A. Emotional and physical safety
 - B. Multisensory teaching
 - C. Closure
 - D. Primacy-Recency Effect
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13. Which network weighs emotional relevance and perceived importance and urgency of information to facilitate switching between mindsets?

- A. Executive control network
 - B. Left hemisphere network
 - C. Salience network
 - D. Default Mode Network
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14. Critical periods refer to a time when the brain is in an optimal state to acquire new information or develop new skills. It doesn't mean that it is impossible to acquire such skills after the CP ends but it is much more difficult. Which principle does this statement support?

- A. Principle 5: The brain is plastic
 - B. Principle 3: New learning is influenced by prior experiences
 - C. Principle 6: There is no new learning without some form of memory and attention
 - D. Principle 2: Each person's brain is differently prepared to learn different tasks
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15. After his lesson, Mr. Parsons decided to read the funny, upbeat math book Math Curse to his students. Which teaching strategy is Mr. Parsons implementing?

- A. Closure
 - B. Primacy-Recency Effect
 - C. Rehearsal
 - D. Using humor
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16. Mr. Parsons noticed that one of his students regularly came into his 3rd period class, which is before lunch, pretty lethargic and disengaged. As soon as Mr. Parsons gave the class a snack, this student became more attentive. What type of need did this student have before he was able to learn?

- A. Social-emotional
 - B. Physiological
 - C. Psychological
 - D. Educational
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17. Which neuroeducation discipline focuses on the developmental mental processes responsible for cognition and behavior?

- A. Psychology
 - B. Education
 - C. Neuroscience
 - D. This does not describe any of the disciplines.
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18. Mr. Parsons just finished his lesson on algebraic equations. He instructs the class, “You will have two minutes to think about the best strategy to solve this problem that we discussed today. Be prepared to turn and talk to your partner after the two-minutes is up.” Which teaching strategy is Mr. Parsons implementing?

- A. Primacy-Recency Effect
 - B. Closure
 - C. Positive emotions
 - D. Cognitive Load Theory
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19. Which answer is NOT an ideal learning condition?

- A. Adequate sleep
 - B. Emotional & physical safety
 - C. High interest topics
 - D. Positive classroom climate
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20. When you learn something new, the neurons involved in the learning episode grow new projections and form new connections. Your brain may even produce new neurons. Which principle does this statement support?

- A. Principle 4: The brain changes constantly with experience
 - B. Principle 1: Human brains are as unique as human faces
 - C. Principle 6: There is no new learning without some form of memory and attention
 - D. Principle 3: New learning is influenced by prior experiences
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