Integrating Educational Technology into Teaching, 8e **(Roblyer/Hughes)**
Chapter 2 Theory into Practice: Foundations for Transformative Technology Integration

2.1 Multiple Choice Items

1) What belief system is inquiry-based learning, in which learners generate their own knowledge through their experiences and teachers serve only as facilitators, based on?
A) behaviorism
B) activism
C) objectivism
D) constructivism
Answer: D

2) Which theorist believed that, while the ages at which children mature vary somewhat, all children go through four stages of cognitive development that occur after certain neurological changes.
A) Jean Piaget
B) B. F. Skinner
C) Jerome Bruner
D) Robert Gagné
Answer: A

3) Bandura's theory holds that some students who are innately capable sometimes do not learn because they lack this.
A) enactive learning
B) vicarious learning
C) self-efficacy
D) self-esteem
Answer: C

4) Technology integration strategies that promote skill fluency or automaticity are based on which kind of models?
A) discovery
B) activist
C) constructivist
D) directed
Answer: D

5) What theory developed by John Dewey was based on the belief that social consciousness was the ultimate aim of all education, and learning was useful only in the context of social experience?
A) social activism
B) social scaffolding
C) discovery learning
D) situated cognition
Answer: A

6) What two kinds of instruments can teachers design or select during Phase 2 of the TTIPP Model to assess changes in student attitudes resulting from a technology-enhanced lesson?
A) Likert scales and rubrics
B) Likert scales and semantic differentials
C) rubrics and semantic differentials
D) rubrics and observation checklists
Answer: B

7) Which of these is an important part of preparing an instructional environment for students with special needs?
A) AUP
B) UDL
C) TTIPP
D) RAT
Answer: B

8) Which of the following is the focus of an integration strategy based primarily on directed models?
A) promote skill fluency or automaticity
B) foster creative problem solving and metacognition
C) foster group cooperation skills
D) generate motivation to learn
Answer: A

9) Which of the following is an example of a technology integration strategy that could help facilitate either directed or constructivist models?
A) to foster creative problem solving
B) to support efficient, self-paced learning
C) to remove logistical hurdles to learning
D) to remedy identified weaknesses or deficits
Answer: C

10) Which kind of the following types of data collection would *not* help determine if a technology integration strategy worked well?
A) achievement data
B) attitude data
C) student comments
D) response statistics
Answer: D

11) Which one of these learning theorists offered principles that could help inform constructivist technology integration strategies?
A) B. F. Skinner
B) Jean Piaget
C) Robert Gagné
D) Benjamin Bloom
Answer: B

12) Which of the following is a typical technology integration strategy based on constructivist learning models?
A) identifying skill weaknesses and targeting tutorial and drill software to them
B) letting students write papers with word processing rather than by hand
C) showing video-based problems that students solve through small group work
D) giving students a French language tutorial because a teacher is not available
Answer: C

13) Which two different approaches to integration must proficient technology-oriented teachers learn to combine?
A) indirect and directed
B) directed and objectivist
C) inquiry-based and constructivist
D) directed and constructivist
Answer: D

14) Which of these learning theorists would help inform directed technology integration strategies?
A) Albert Bandura
B) Jean Piaget
C) Robert Gagné
D) Lev Vygotsky
Answer: C

15) What is the last step of the TTIPP model?
A) determine relative advantage
B) identify technology possibilities
C) share the lesson with others
D) assess POPs
Answer: C

2.2 Essay Questions

1) Suppose there is a student who has failed at learning mathematics skills and is very unmotivated. What strategy would advocates of directed instruction suggest? What would constructivists recommend?
Answer: **Answers vary and include:** *For directed*, try to identify gaps in prerequisite skills and target specific remedial instruction delivered at the student's own pace. *For constructivist*, engage the student in more visually interesting tasks linked to topics that he can relate to from his own experience; let him build knowledge based on these experiences.

2) Describe why it's important for teachers to assess the technological resources of students and families.
Answer: **Answers vary and include:** Understanding your students' and their parents' digital capabilities and access to technologies allows a teacher to design lessons that use the digital literacies students already possess or anticipate what technological instruction will be necessary prior to teaching a specific technology-supported lesson.

3) Explain the differences in the R, A, and T categories in the RAT matrix.
Answer: **Answers vary and include:** Replacement (R) situates technology as a different means to the same educational goal. Amplification (A) situates technology as a way to increase efficiency and intensify productivity in relation to the same educational goals and processes. Transformation (T) situates technology as a restructuring or reorganization of educational processes that enable change heretofore impossible.

4) Identify and describe a specific problem of practice (POP) and a technology possibility you think might be able to contribute to solving the POP.
Answer: **Answers vary and include:** Meaningful POPs may focus on disciplinary-specific knowledge, skills or dispositions; the nature or frequency of learning activities for real-world relevancy and deep learning; the role of students in learning; and observable indicators of a problem. POPs can be related to an instructional or learning challenge. Technology possibilities will vary based on the identified POP.

5) Explain what the "turn-around" part of the Turn-around Technology Integration Pedagogy and Planning (TTIPP) model means in practice.
Answer: **Answers vary and include:** In practice, turning around involves a process teachers can engage in to explore their students' lived experiences and identify how those experiences are assets for learning, to investigate research-based perspectives on equity and learning, and to examine students' learning challenges in relation to the teacher's current pedagogy that might not privilege all students' capabilities, knowledge, and interests. Once teachers engage in these activities, they are better positioned to *turn toward* students by developing asset views of learners and revitalize their curriculum with new pedagogy that *turns* students from disengagement to engagement.