**Chapter 1: Answer Key**

**Becoming an Expert**

***Multiple Choice***

|  |  |  |
| --- | --- | --- |
| Answer: B  Type: Factual  Obj: 1  Topic: *The Thinking Triangle* | 1.1 | Robert Sternberg's theory of intelligence includes which of the following?  a. thinking conceptually  b. thinking creatively  c. thinking abstractly  d. thinking positively |
| Answer: C  Type: Factual  Obj: 1  Topic: *The Thinking Triangle* | 1.2 | When you are evaluating concepts, comparing and contrasting, you are thinking \_\_\_\_\_\_\_.  a. conceptually  b. creatively  c. analytically  d. practically |
| Answer: D  Type: Conceptual  Obj: 1  Topic: *The Thinking Triangle* | 1.3 | Susan uses strategies to help her learn efficiently and is open to challenges and willing to overcome problems to achieve learning goals. Sternberg and Williams would say that Susan is:  a. a poor student  b. a good teacher  c. a gifted student  d. an expert student |
| Answer: A  Type: Factual  Obj: 1  Topic: *The Thinking Triangle* | 1.4 | Which of the following is NOT a suggestion from Sternberg and Williams for teachers trying to help a talented student become an expert student?  a. Give the student "homework passes" for reinforcement of a job well done.  b. Encourage and support the student's interests.  c. Challenge the student to do extra work.  d. Introduce the student to an adult with expertise in  the same domain. |

|  |  |  |
| --- | --- | --- |
| Answer: B  Type: Conceptual  Obj: 2  Topic: *What Is an Expert Teacher?* | 1.5 | Each day, Burton takes time to think about his progress at teaching, and attempts to understand what he is doing right and doing wrong and why. He knows this will contribute to the development of his expertise. Burton is using the technique of:  a. expert thinking  b. reflective thinking  c. effective daydreaming  d. practical thinking |
| Answer: A  Type: Factual  Obj: 2  Topic: *What Is an Expert Teacher?* | 1.6 | According to the textbook, which of the following is NOT a characteristic of an expert teacher?  a. Experts are quick thinkers.  b. Experts have expert knowledge.  c. Experts are efficient.  d. Experts have creative insight. |
| Answer: D  Type: Conceptual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.7 | Miss Evans needs to understand how to enhance student motivation, how to manage groups of students in a classroom setting, and how to design and administer tests. Miss Evans needs:  a. content knowledge  b. expert knowledge  c. pedagogical-content knowledge  d. pedagogical knowledge |
| Answer: C  Type: Conceptual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.8 | Miss Jackson seems to know everything about biology. She has completed many biology courses, she reads about biology and discusses biology with the other science teachers in the school. What type of expert knowledge does Miss Jackson demonstrate?  a. pedagogical  b. context  c. content  d. pedagogical-content |
| Answer: C  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.9 | Specific knowledge of how to teach what is being taught, such as knowledge of how to explain particular concepts, how to demonstrate and explain procedures and methods, and how to correct students' naïve theories and misconceptions about subject matter.  a. content knowledge  b. expert knowledge  c. pedagogical-content knowledge  d. pedagogical knowledge |
| Answer: B  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.10 | According to the textbook, a lesson plan includes all of the following EXCEPT  a. global plans  b. global decisions  c. local plans  d. decision elements |
| Answer: A  Type: Conceptual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.11 | Althea's lesson plan includes routines for checking homework, presenting new material, and supervising guided practice. Althea is including  a. global plans.  b. global decisions.  c. local plans.  d. decision elements. |
| Answer: C  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.12 | This part of the lesson plan might include routines for presenting particular concepts or for assessing student understanding of particular concepts. They are tailored to the content being taught.  a. global plans  b. global decisions  c. local plans  d. decision elements |
| Answer: A  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.13 | Other than pedagogy and content, expert teachers need knowledge of  a. the social and political context in which teaching occurs.  b. how to publish a textbook.  c. the inner workings of the equipment to be used in the school setting.  d. the various psychological theories relevant to the classroom. |
| Answer: D  Type: Conceptual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.14 | Isaac is an expert teacher, and can perform important tasks without thinking much about them. In his efficiency, Isaac is able to  a. ignore well-learned skills.  b. develop well-learned skills.  c. identify well-learned skills.  d. automatize well-learned skills. |

|  |  |  |
| --- | --- | --- |
| Answer: C  Type: Conceptual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.15 | When Edwina has a problem in the classroom, she thinks about which plan or approach is more likely to work, or she thinks about how one plan compares to another one she has tried that failed. Edwina, an expert teacher, is thinking about her thinking; she is using  a. global planning.  b. local planning.  c. metacognitive processes.  d. planning processes. |
| Answer: B  Type: Conceptual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.16 | Ms. Coleman is an expert third-grade teacher. After a couple of weeks of teaching her new class this school year, she notices that the most vocal students are behind in their math skills. She also notices that a couple of her students may have learning disabilities in math. Because she automatically teaches her class with less effort than a novice, she is able to  a. use the thinking triangle.  b. reinvest mental resources.  c. think creatively.  d. move these students to a different class. |
| Answer: C  Type: Conceptual  Obj: 4  Topic: *Expert Teachers Have Creative Insight* | 1.17 | Sam is an expert teacher with creative insight. This means Sam's solutions to problems are  a. novel.  b. appropriate.  c. both novel and appropriate.  d. novel, but may be inappropriate. |
| Answer: A  Type: Factual  Obj: 4  Topic: *Expert Teachers Have Creative Insight* | 1.18 | How do expert teachers solve difficult problems in the classroom?  a. They often redefine the problem.  b. They clearly define the problem.  c. They always seek advice from others.  d. They jump right into the natural solution. |

|  |  |  |
| --- | --- | --- |
| Answer: B  Type: Factual  Obj: 4  Topic: *Expert Teachers Have Creative Insight* | 1.19 | Which of the following statements is NOT one of the three key ways experts think about problems?  a. Experts combine information in ways that are useful for problem solving.  b. Experts ignore irrelevant information presented to the class by students.  c. Experts distinguish information relevant to solving a problem from information that is not relevant.  d. Experts apply to a teaching problem information acquired in another context. |
| Answer: D  Type: Conceptual  Obj: 4  Topic: *Expert Teachers Have Creative Insight* | 1.20 | Mr. Lewis is an expert high school math teacher. Whenever the class is having a difficult time grasping a new concept, he looks to familiar, everyday events to create analogies with the new math concepts. Mr. Lewis is using which of the key ways experts think about problems?  a. Experts combine information in ways that are useful for problem solving.  b. Experts ignore irrelevant information presented to the class by students.  c. Experts distinguish information relevant to solving a problem from information that is not relevant.  d. Experts apply information acquired in context to a teaching problem in another context. |
| Answer: A  Type: Factual  Obj: 5  Topic: *Advantages of Expertise* | 1.21 | According to the text, which of the following is NOT one of the ways expert teachers differ from novice teachers?  a. intelligence  b. amount and depth of knowledge  c. insights into problems on the job  d. efficiency |
| Answer: D  Type: Conceptual  Obj: 6  Topic: *Use of Effective Learning Strategies* | 1.22 | The high school guidance counselor told Joan that she should not allow herself to become HALT (hungry, angry, lonely, or tired). The guidance counselor was using which memory strategy with Joan?  a. acrostic  b. pegwords  c. keywords  d. acronym |

|  |  |  |
| --- | --- | --- |
| Answer: B  Type: Conceptual  Obj: 6  Topic: *Use of Effective Learning Strategies* | 1.23 | When James is trying to learn an ordinal list of terms, he refers back to "One is a bun, Two is a shoe, Three is a tree" as a helpful guide. Which memory strategy is James using?  a. acrostic  b. pegwords  c. keywords  d. acronym |
| Answer: A  Type: Conceptual  Obj: 6  Topic: *Use of Effective Learning Strategies* | 1.24 | Katie still remembers the notes on the treble cleft by reciting: "Every Good Boy Does Fine." Katie is using which memory strategy?  a. acrostic  b. pegwords  c. keywords  d. acronym |
| Answer: C  Type: Factual  Obj: 6  Topic: *Use of Effective Learning Strategies* | 1.25 | In order to tell which learning strategies you are currently using you should think out loud and methodically state your steps in solving a problem or completing a task. In other words, you should use  a. pegwords.  b. keyword protocols.  c. think-aloud protocols.  d. categorical clustering. |
| Answer: D  Type: Factual  Obj: 6  Topic: *Use of Effective Learning Strategies* | 1.26 | Which of the following is NOT one of the general strategies for improving learning and performance mentioned in your text?  a. Knowing Self  b. Reworking  c. Knowing Differences  d. Knowing Others |
| Answer: B  Type: Factual  Obj:  Topic: *Incremental View of Intelligence* | 1.27 | Many students believe that intelligence is something they are born with. This view is known as the  a. incremental view.  b. entity view.  c. mastery view.  d. process view. |
| Answer: A  Page: 47  Type: Factual  Obj: 7  Topic: *Incremental View of Intelligence* | 1.28 | Research has shown that intelligence can be increased. This view is known as the  a. incremental view.  b. entity view.  c. mastery view.  d. process view. |
| Answer: A  Type: Conceptual  Obj: 7  Topic: *Incremental View of Intelligence* | 1.29 | Nick does not become defensive when he receives negative feedback from the teacher. In fact, he sees it as an indication that more work and effort are needed, and he responds by working harder. Nick demonstrates a(n)  a. incremental view.  b. entity view.  c. mastery view.  d. process view. |
| Answer: C  Type: Factual  Obj: 7  Topic: *Incremental View of Intelligence* | 1.30 | Incremental view is to mastery-oriented beliefs as entity view is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  a. process-oriented beliefs  b. protocol-oriented beliefs  c. performance-oriented beliefs  d. challenge-oriented beliefs |
| Answer: B  Type: Factual  Obj: 7  Topic: *Incremental View of Intelligence* | 1.31 | A substantial body of research indicates that the hallmark of the expert student is that he or she focuses on  a. improving their performance on each subsequent assignment.  b. effort and hard work as a route to mastering material.  c. not making mistakes.  d. having a positive attitude toward learning. |
| Answer: C  Type: Factual  Obj: 6  Topic: *What Do We Know About Expert Learners?* | 1.32 | Which of the following is NOT a characteristic of an expert student?  a. Use of effective learning strategies  b. High aspirations  c. Entity view of intelligence  d. High self-efficacy |
| Answer: B  Type: Conceptual  Obj: 9  Topic: *High Perceived Self-Efficacy* | 1.33 | Rita believes she is capable of succeeding in school. According to the text, Rita has a(n)  a. low perceived self-efficacy.  b. high perceived self-efficacy.  c. incremental view.  d. entity view. |

|  |  |  |
| --- | --- | --- |
| Answer: D  Type: Conceptual  Obj: 10  Topic: *Pursuit of a Task to Completion* | 1.34 | Mr. Fields, the guidance counselor, praised Terrell for his volition. Which of the following does your text NOT include as a way to increase volition?  a. control anxiety  b. general verbal self-instructions  c. eliminate distractions  d. control depression |
| Answer: A  Type: Factual  Obj: 10  Topic: *Pursuit of a Task to Completion* | 1.35 | Which of the following statements was NOT included in the text when expert students were questioned about the types of learning strategies they use?  a. Know your teacher.  b. Know your preferred working conditions.  c. Know how to motivate yourself.  d. Know how to obtain assistance from others. |
| Answer: C  Type: Conceptual  Obj: 11  Topic: *Responsibility for Self and Actions* | 1.36 | Valerie and Jamie just performed poorly on a test. Valerie states that next time she is going to try a different study technique, while Jamie states that the teacher is really difficult. Rotter would say that Valerie is \_\_\_\_\_\_\_\_\_, and Jamie is \_\_\_\_\_\_\_\_\_\_.  a. external; internal  b. incremental; entity  c. internal; external  d. entity; incremental |
| Answer: D  Type: Factual  Obj: 13  Topic: *How Educational Psychology Helps Create Expert Teachers and Learners* | 1.37 | Educational psychologists conduct these two types of studies to answer specific questions.  a. descriptive and correlational  b. positive and negative correlational  c. case study and correlational  d. descriptive and experimental |
| Answer: A  Page: 58  Type: Conceptual  Obj: 13  Topic: *Descriptive Research* | 1.38 | An educational psychologist discovers that the more sleep students have, the greater their test scores are. This is an example of:  a. a positive correlation  b. an experiment  c. a negative correlation  d. a case study |

|  |  |  |
| --- | --- | --- |
| Answer: B  Type: Conceptual  Obj: 13  Topic: *Experimental Research* | 1.39 | An educational psychologist discovers that when one group of students is sleep-deprived, they perform worse on a test than the group of students who are allowed to sleep through the night. This is an example of:  a. a positive correlation  b. an experiment  c. a negative correlation  d. a case study |
| Answer: C  Type: Factual  Obj: 13  Topic: *How Educational Psychology Helps Create Expert Teachers and Learners* | 1.40 | Which of the following is NOT an example of descriptive research?  a. positive correlation  b. case study  c. an experiment  d. negative correlation |
| ***True-False*** | | |
| Answer: False  Type: Factual  Obj: 2  Topic: *What Is an Expert Teacher?* | 1.41 | Being effective as a teacher happens as a result of sitting down at the end of each school day and thinking about what it means to be an effective teacher. |
| Answer: False  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.42 | Expert teachers are superior in general memory and thinking ability than novice teachers. |
| Answer: True  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.43 | Experts, as compared with novices, are more sensitive to deep structures when solving problems. |

|  |  |  |
| --- | --- | --- |
| Answer: False  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.44 | Experts and novices do not differ in the amount of knowledge they have; only in how they organize that knowledge in memory. |
| Answer: True  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.45 | Global plans include routines for checking homework, presenting new material, and supervising guided practice. |
| Answer: False  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.46 | Global plans include routines for presenting particular concepts or for assessing student understanding of particular concepts. |
| Answer: True  Type: Factual  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | 1.47 | Decision elements in the lesson plan tell the teacher what to do when typical types of questions are asked, and they allow for unanticipated circumstances. |
| Answer: True  Type: Factual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.48 | People's mental resources are limited, but experts are able to stretch these limits. |
| Answer: False  Type: Factual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.49 | Novice teachers (compared with expert teachers) spend more time trying to understand the problem to be solved rather than actually trying different solutions. |
| Answer: True  Type: Factual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.50 | Expert teachers tend to emphasize the definition of discipline problems and the evaluation of alternative explanations for the problems. |
| Answer: False  Type: Factual  Obj: 3  Topic: *Expert Teachers Are Efficient* | 1.51 | Expert teachers (compared with novice teachers) tend to be more solution oriented and less concerned with understanding discipline problems. |
| Answer: False  Type: Factual  Obj: 9  Topic: *High Perceived Self-Efficacy* | 1.52 | Students with high self-efficacy in one academic area tend to have high self-efficacy in all academic areas. |
| ***Short Answer*** | | |
| 1.53 List the three characteristics of expert teachers.  ANSWER GUIDELINE:  First, experts have expert knowledge. Second, experts are efficient; doing more in less time than novices. Third, experts have creative insight.  Obj: 2  Topic: *What Is an Expert Teacher?* | | |
| 1.54 List the three types of expert knowledge.  ANSWER: content knowledge, pedagogical knowledge, pedagogical-content knowledge  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | | |
| 1.55 List and describe the three parts to the lesson plan.  ANSWER: Global plans are not related to the specific lesson content or subject matter. Local plans relate to content and subject matter. Decision elements make the lesson plan responsive to expected and unexpected events.  Obj: 2  Topic: *Expert Teachers Have Expert Knowledge* | | |
| 1.56 What could you suggest to a student seeking to become more expert in a particular area where they may be struggling?  ANSWER: Focus on good performances in areas you've already mastered to bolster your confidence and enhance your effort when you must confront a weaker area.  Obj: 9  Topic: *High Perceived Self-Efficacy* | | |
| 1.57 What is the goal of the science of educational psychology?  ANSWER: To take knowledge from the discipline of psychology that is relevant to education and to apply this knowledge in order to improve the quality and outcome of the educational process.  Obj: 13  Topic: *Educational Psychology and the Creation of Expert Teachers and Expert Students* | | |

|  |
| --- |
| ***Essay*** |
| 1.58 Describe how expert chess players are similar to expert teachers (use the classic study of Chase & Simon as your guideline).  ANSWER GUIDELINE:  The classic study of the memory of chess pieces (Chase & Simon, 1973) demonstrated that the advantage of chess experts over novices was related to chess configurations, and did not reflect superiority in general memory or thinking ability. As long as chess pieces were arranged in a configuration that might logically evolve during the course of a chess game, the experts showed superior memory. When chess pieces were placed on the board randomly, both experts and novices showed poor memory. The advantage was in the experts' greater knowledge base concerning possibilities in chess. Likewise, experts in any field (including teaching) have the main advantage over novices in their greater knowledge about their domain of expertise. This knowledge comes from experience.  Topic: *Expert Teachers Have Expert Knowledge* |
| 1.59 Describe how experts and novices differ in how they organize and store knowledge.  ANSWER GUIDELINE:  Experts are more sensitive to the deep structures of the problems they are solving—grouping together problems according to the principles that are relevant to the problem solution. By contrast, novices are more sensitive to surface structures—sorting problems according to things mentioned in the problem. Experts and novices differ not only in the amount of knowledge they have but also in how they organize that knowledge in memory.  Topic: *Expert Teachers Have Expert Knowledge* |
| 1.60 Describe the relationship between automatizing well-learned skills and planning, monitoring, and evaluating. How does this relationship benefit expert teachers?  ANSWER GUIDELINE:  The ability of experts to make skills automatic is related to their ability to be reflective and to think about thinking during problem solving. The mental resources that are saved when skills become automatic do not simply make problem solving easier for the expert. The saved resources are now available for higher level thinking that may be beyond the capacity of the novice. True experts reinvest mental resources to better understand problems. Whereas novices and experienced nonexperts seek to reduce problems to fit what they already know, true experts are undaunted by complications, viewing them, instead, as challenges that allow them to work on the leading edge of their knowledge and skill.  Topic: *Expert Teachers Are Efficient* |
| 1.61 Why is an entity view unproductive for students?  ANSWER GUIDELINE:  Students who believe intelligence is fixed tend to take negative evaluations of their abilities and performance very personally, seeing these evaluations as signs that they simply are not intelligent enough to succeed. Students with an entity view therefore tend to avoid situations in which they might get negative feedback, and thus tend to avoid challenges. Failure is often debilitating for these students.  Topic: *Incremental View of Intelligence* |
|  |