



Study Guide

Formative Assessment in a Brain-Compatible Classroom

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This study guide is arranged by question, enabling readers to work their way through the entire book or to focus on the specific topic addressed in a particular question. This guide is designed to help you reflect on and apply the ideas presented in *Formative Assessment in a Brain-Compatible Classroom*, and is a useful companion piece for individuals, small groups, or an entire faculty. Learning Sciences International thanks you for your interest in this book, and we hope that this guide proves a valuable addition and support to your professional development practices.

Question 1

What Are the Types of Assessment?

1. Explain, in your own words, the difference between assessment and evaluation.
2. List the three things that must be in place for an assessment to be truly formative.
3. Give one example of a traditional measure and one example of an authentic measure.
4. Provide an example of a selected response you have assigned, and an example of a constructed response you have assigned.
5. Describe the way in which you would implement student portfolios in your classroom, and explain why they might be a beneficial addition.

Question 2

What Evidence Supports the Use of a Variety of Assessment Types

1. Record your understanding of the dual hemispheres of the brain.
2. The text lists nine different types of intelligence, describe each one in your own words.
3. Looking at the lists of three foundational skills and five workplace competencies described in the text, choose one skill set from each category and provide a “real world” example of that particular skill set.
4. According to the text, traditional tests only assess _____ percent of the eight necessary workplace skills and competencies.
5. Internal reflection: Which of the nine intelligence types best describes you, and how could you apply this self-knowledge to improving your teaching practices?

Question 3

How Can I Create a Brain-Compatible Classroom Environment That Fosters High Academic Achievement?

Question three is organized into six assumptions about the brain. The subsequent questions will each address a different assumption.

1. Most brains need to hear something how many times for the information to “stick”?
2. According to the text, anxiety, boredom, and alienation can block what three brain activities necessary to learning?
3. Provide an example of a classroom activity that engages both brain hemispheres.
4. What phrase is described in the text as the “ideal state of the brain during testing”?

Strategize ways in which you might create a classroom that encourages the above mental state.

5. What are the four types of memory described in the text? Choose one and give an example typifying that memory type.
6. Think of a lesson you have recently taught, and design a “Real World” application for it that you could use with your students.

Question 4

How Can I Begin with the End in Mind?

1. Describe backward planning in your own words, and explain why it is a useful technique.
2. List and explain the four recommendations for setting learning objectives as described in the text.
3. What are the five questions for backward lesson design?
4. Choose a standard from your grade level and/or subject area, and backward plan a lesson. Provide lesson specific answers to each of the five questions listed above.

Question 5

How Can I Write Quality Selected- and Constructed- Response Test Items?

Using the standard and lesson you have planned for with the previous chapter, design an assessment using each of the response items described in chapter 5. Refer to the individual response directives in the text when creating your questions.

1. Multiple Choice
2. True/False
3. Matching
4. Fill in the Blank
5. Short Constructed Response
6. Extended Constructed Response

Question 7

How Do I Know What Students Already Know Before the Lesson?

1. Explain the purpose of preassessment activities.
2. Write down one way in which you could positively convey your expectations to your students.
3. Describe the benefits of knowing your students' multiple intelligences.
4. Which, if any, of the preassessment techniques presented in chapter 7 have you used in your classroom?
5. Which of the preassessment techniques presented in chapter 7 would you be most likely to utilize in your classroom, and why?

Question 8

How Do I Know What Students Are Learning During the Lesson?

1. Why is assessment during a lesson an important component of instruction?
2. Thinking of a lesson you have recently taught or one you plan to teach soon, create a sponge activity applicable to that lesson.
3. What is “beaming the question” and why is it useful?
4. The text recommends a five second wait time between a teacher asking a question and a student answering. Explain the logic behind this recommendation.
5. List and explain, in your own words, the seven steps of a Socratic Seminar.
6. Design a project based on a unit of study relevant to your subject area and grade level. Refer to page 98 of the text for guidance.

Question 9

How Do I Know What Students Have Learned After the Lesson?

Question 9 gives multiple examples of constructed-response activities, and each question will relate to one of the activities.

1. Describe an instance, appropriate to your subject area and grade level, in which you would use the carousel method.
2. Of the activities Draw It!, Acrostic Topic Activity, and Act It Out! which would you be most likely to use, and why?
3. Model the Three-Two-One technique using a lesson/unit of study you have recently taught.
4. Which of the techniques might you use for students in need of remediation?
5. Which of the techniques might you use for students in need of enrichment?

Question 11

How Can Rubrics Be Used to Assess Student Learning?

1. Explain the value of rubrics.
2. List and describe, in your own words, the six benefits of using rubrics.
3. What does the text mean by, “when sequences of behavior are predictable, they are brain compatible”?
4. What are the three major types of rubrics? How do they differ?
5. What does the acronym CRI stand for? And SAD?
6. Create a rubric for the project you designed for chapter 8.

Question 12

How Do We Know What Students Are Learning When They Work Together?

1. According to the text, if a person is given the chance to teach what they have learned to someone else, their chance of retaining the information is at least _____ percent. If the individual accomplishes the task while talking about it, that number goes up to _____ percent.
2. Explain positive interdependence in your own words.
3. Of the positive interdependence strategies listed on pages 131–132, which one(s) are you most likely to use, and why?
4. Explain individual accountability in your own words.
5. Of the individual accountability activities listed on pages 133–134, which one(s) are you most likely to use, and why?

Question 13

How Can Students Peer- and Self-Assess During the Formative Process?

1. According to the text, “students who received continuous feedback, without the grades, did 60 percent better than those students who received grades alone.” Explain why this is the case.
2. List and describe the three guidelines for helping students assess themselves and others.
3. Which, if any, of the Peer-Assessment strategies have you used in your classroom? Which are you most likely to try going forward, and why?
4. Why is self-assessment an important component of learning?
5. Which, if any, of the Self-Assessment strategies listed in the text have you used in your classroom? Which are you most likely to try going forward, and why?

Question 14

How Can Students Knock the Top off Any Test?

List and describe the four ways teachers can improve their students' chances of doing well on assessments.

1.

2.

3.

4.