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Think Big, Start Small: How to Differentiate Instruction in a Brain-Friendly Classroom

By Gayle Gregory and Martha Kaufeldt

Study Guide

This study guide is a companion to the book *Think Big, Start Small: How to Differentiate Instruction in a Brain-Friendly Classroom* by Gayle Gregory and Martha Kaufeldt. *Think Big, Start Small* pares down the vast field of neuroscience and provides educators with simple brain-compatible strategies that will make a difference in their differentiated classrooms.

This guide is arranged by chapter, enabling readers to either work their way through the entire book or to focus on the specific topics addressed in a particular chapter. It can be used by educators to identify key points, raise questions for consideration, assess their own practices, and further develop their instruction.

We thank you for your interest in this book, and we hope this guide is a useful tool in your efforts to create a classroom that enhances learning.

Chapter 1

Using Educational Neuroscience to Differentiate Instruction

1. Why should differentiated instruction be made a part of the general education classroom?
2. Define quality differentiation.
3. How does the concept of the brain-compatible classroom correlate to the law of arousal?
4. Identify and briefly explain the seven common brain principles.
5. How do learners differ from one another in ways and preferences for learning?
6. What ideas and tips from this chapter can you utilize in your classroom?

Chapter 2

Creating a Brain-Compatible Environment

1. According to Gregory and Kaufeldt, the classroom's physical environment may contribute to how the brain perceives the learning environment. What does that mean? What are you already doing to orchestrate your classroom's physical environment?
2. What are some systems and patterns educators can implement in their classrooms to reduce student stress and anxiety?
3. Describe purposeful activities teachers can assign to help students develop social skills and foster a sense of inclusion in the classroom.
4. How can educators help Net Generation learners feel relaxed, ready to engage, and respected?
5. According to the authors, it is the teacher's responsibility to become knowledgeable about terminologies, trends, and technological advancements when working with digital natives. How can you incorporate technology in your classroom or lesson plans to engage students?
6. What ideas from this chapter might you want to try to create a safer and more secure climate and environment?

Chapter 3

Engaging, Exciting, and Energizing the Learner

1. What are you already doing in your classroom to get students' attention and engage all learners?
2. Describe four ways humor can be used to enhance the classroom's environment and student learning.
3. What is an inconsequential reward? Why should it be given during mini-challenges and competitions?
4. Identify and define the dimensions of knowledge. List examples of each.
5. Identify and define the cognitive process levels.
6. Describe the four main categories of digital hooks. How does each enrich learning?
7. What is the benefit of using student response systems in the classroom?
8. What strategies from this chapter might you use to get students' attention and engage them?

Chapter 4

Exploring the Learning

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1. How can teachers show students that effort—more than luck or ability—results in academic success?
2. How does cooperative group learning benefit students?
3. What five elements of group work increase the chances that the interactions will result in student learning and students using their time together well?
4. List three skills for maintaining a successful group process.
5. How does giving students choices positively impact student learning?
6. What are some of the things from this chapter that you are already doing in your classroom? What is one thing that you can incorporate that you may not have tried before?
7. Considering the number of rehearsals students may need, what are several options for practice that may be offered to students?

Chapter 5

Extending and Expanding Learning for Every Student

1. What are you already doing in your classroom to extend learning?
2. Explain the concept of tiered lessons.
3. What is a modification? Under what circumstances should a teacher implement a modification?
4. What is the benefit of organizing student tasks by interest and learning preference?
5. Identify and explain the eight areas of consideration needed to create depth in a classroom. What areas are recommended to build complexity?
6. How should students' responsibilities and tasks be divided when working on group projects?
7. Give an example of how you can incorporate the concept of learning celebrations into your classroom.
8. What strategies from this chapter might you want to implement to increase and vary the amount of lateral enrichment and extension you provide for students?

Chapter 6

Evaluating the Learning

1. Why is differentiation necessary for students' success?
2. To accurately evaluate student learning, what must assessments focus on?
3. Identify and define three forms of assessment.
4. When can preassessments be given? What are some types of preassessments you can implement in your classroom?
5. Identify and describe the two main factors of effective feedback.
6. Why are peer editing and rubrics valuable tools for feedback and improvement?
7. According to the authors, teachers plan lessons and units and proceed as planned, yet conditions vary based on how easily or with what difficultly students deal with the new information or skill. How can educators create adjustment opportunities to inform their next steps?

Chapter 7

Think Big, Start Small

1. Identify the attributes of differentiation.
2. Why is it important to make sure students and their parents understand what differentiation is?
3. According to Table 7.2: Planning Guide for Differentiated Instruction, what does it mean to create a brain-compatible environment?
4. What are four examples of in-the-moment criteria educators use to select strategies?
5. True or false: It remains true that the teacher makes the difference for student learning.