

Introduction

Learning is not just a process left to the brain, it involves the whole being. This book examines how learning occurs and the implications for helping all students to be successful. In these chapters, we will look at the factors that identify being smart and the factors that label us as slow learners or underachievers. We will examine the factors that help students take in information at a more efficient rate and the factors that help students to retrieve information from long-term memory. We will also examine the tactics that help students learn and remember declarative knowledge and the importance of procedural tools. Practical applications will help the reader to make connections between the information on how learning occurs and ways to prepare and teach effective lessons.

One of the most important things we can do for our students today is to teach them the vocabulary they will need to be successful in the lessons and assessments given. Teach vocabulary first and see what a difference it makes. In Form 0.1 are the vocabulary words needed for this book. In the “Your Definition” column, write in your understanding of the word at this time. After you have read the book, see if you have changed your mind about your definition or if you want to enhance your first thoughts about the words in the “Revised Definition” column. I am also including a vocabulary pre-test for you to assess your understanding at this time.

xii Learning, Memory, and the Brain

Form 0.1 Vocabulary List for Learning, Memory, and the Brain

Vocabulary Word	Your Definition	Your Revised Definition
<i>Achievement gap</i>		
<i>Active learning</i>		
<i>Basic skills</i>		
<i>Brain-based teaching</i>		
<i>Coaching</i>		
<i>Constructivism</i>		
<i>Declarative knowledge</i>		
<i>Differentiated instruction</i>		
<i>Episodic memory</i>		
<i>Explicit instruction</i>		
<i>Graphic organizers</i>		
<i>Heuristics</i>		
<i>Indirect instruction</i>		
<i>Cognitive development</i>		
<i>Mastery learning</i>		
<i>Metacognition</i>		
<i>Procedural memory</i>		
<i>Procedural knowledge</i>		
<i>Pedagogy</i>		
<i>Semantic memory</i>		
<i>Scaffolding</i>		
<i>Teaching for understanding</i>		

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