10 Best Teaching Practices

How Brain Research,
Learning Styles
and Standards
Define Teaching
Competencies

Second Edition

DONNA WALKER TILESTON

HAWKER BROWNLOW
EDUCATION

To my sons, Christopher Scott McBrayer and Kevin Lane McBrayer, and in memory of their brother, Chad Michael McBrayer.

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Preface

The ultimate source of exceptional performance is exceptional learning. Therefore, the question is how can we best produce exceptional learning in young people? How can we make exceptional learning unexceptional?

–Laurence Hooper, *The Wall Street Journal* (1992)

We live in a time in which a revolution in education is occurring. Through brain research and technology, we have unlocked many of the reasons why some children experience so much difficulty in learning. We know more about effective teaching practices than at any other time in history. Through technological advances, we have a whole world as our resource base. In addition, teachers are finally being empowered to make the choices that affect their classrooms.

Although we have tremendous resources available to us, schools have been slow to use that information to change the way classes are conducted. We live in an age in which vast amounts of information must be assimilated, synthesised and communicated, yet too many schools continue to teach with the methods of the 1950s . . . rote memorisation of dates, places and facts that are quickly forgotten after 'the test'. It is no wonder that we are losing our students and that they enter a world ill prepared for the information explosion. As we shift to a new age and a vastly different approach in the way businesses operate, we must also shift our thinking. The Association for Supervision and Curriculum Development (ASCD, 1999a) says, 'In 10 years, there will be two kinds of people: the well educated and the hardly employable.' Knowledge and technology will be the great equalisers of this millennium. Education has a responsibility to see that students have, at a minimum, the knowledge base they need to be 'players' on a level playing field.

This book is written to incorporate the brain research, the learning styles information and the issue of standards into a classroom instructional model. It is not intended to be a technical manual on the brain; bookshops are filled with books that do a good job of giving us the technical research. Rather, this book is a look at the application of the brain research and how it can be applied to the classroom. We have wonderful research available to us, but reading and discussing it is not enough: We must get it to the people who can benefit the most – our students. We will reach our students only when we incorporate the knowledge base we have into classroom practices.

I have identified 10 teaching practices that have tremendous power in the classroom when we incorporate the best of research with their implementation. These teaching strategies are based on the best research in the field and on real classroom experience by practitioners. More than 15 years ago, I began a dynamic field study on the factors that enhance learning and the factors that impede it. Along with a group of teachers, I used the research that was available at that time to help restructure a school in trouble. Positive results could be seen almost immediately and have been sustained over the years. Today, the school that once had low test scores, a high drop-out rate and many discipline problems enjoys some of the highest test scores in the state. What is significant about this study is that the results have been sustained over time – it was not a one-shot quick fix, but a systemic process that has grown. The new research on how the brain learns has validated the structures that we put in place and built over the past two decades.

I am writing this book for educators, to tell you that success is possible in your school. In the chapters that follow, I will examine 10 practices that are essential if we are to make education meaningful and rich. It is a process that takes time, training, resources and commitment, but it is worth it because it raises the quality of life for kids.

Chapter 1 looks at the importance of a climate that is enriched and emotionally supportive. The brain research on the effects of climate and the brain's capacity to learn is critical. Not only can we reverse the effects of an early negative environment, but, according to Sousa (1995), we can actually increase the IQ scores of students by as much as 20 points by enhancing the environment for learning. I consider this chapter to be critical, because if we cannot create a climate in which all students feel physically and emotionally secure, the rest doesn't matter.

Chapter 2 addresses the need for a wide repertoire of teaching techniques so that all students, regardless of learning modality, will be successful. Schools of the past taught mainly to the auditory learners; schools of the future must teach to all learners. New research shows that as much as 80% of the classroom may be made up of students who don't learn auditorily (Sousa, 2001). We must examine not only the three modalities for incoming information, but the rhythm of the teaching as well. The attention span of the brain follows a rhythm that, if incorporated into the time frame of teaching, ensures greater response from students.

Chapter 3 looks at the critical element of connections or transfers in learning. The brain is a seeker of connections and where they do not exist, there is chaos. Our job as educators is to build on connections that already exist and to help create connections where there are none. This chapter offers hope to the parents, teachers and students as they search for ways to put learning into long-term memory.

Chapter 4 is an investigation into the workings of the memory system. How does the brain decide what to toss and what to keep? More importantly, how can we take this new knowledge to the classroom? All of us, as educators, have experienced those agonising moments when we realised that although we taught our hearts out, the students just didn't get it. With the mystery of how we learn and remember solved, teachers of the future have the opportunity to make learning more meaningful than at any other time in history.

Chapter 5 looks at the need to provide motivating, challenging work in the classroom. The days of meaningless busywork must be brought to a close. Time is too precious a commodity to waste in the classroom. Our students will enter a world in which computers can do rote memory tasks. We must prepare them for the things computers cannot do – problem solving, complex thinking and collaboration.

Chapter 6 is a discussion of the power of true collaborative learning. In the global world, the need for articulation skills, the ability to work with a variety of people and the ability to collaborate on problem solving is critical. What a wonderful gift to give to our students! Studies from Marian Diamond (1998) show that we thrive when we learn in social settings.

Chapter 7 discusses the importance of success for all learners. We must take a hard look at student data in its desegregated form. We must look at cultural differences and the research on what works and what does not. It's time to bring in the experts and be honest about what is not working.

Chapter 8 identifies what authentic assessment is and what it is not. We must move away from assessment that is short term and influenced by rote memory alone, to a process that is ongoing and that truly tests long-term memory. We must begin to assess learning in the context of how it is going to be used. Only then can we truly know if students can use the information.

Chapter 9 looks at relevance as it applies to learning. Like climate, this is one of the most powerful areas of influence on how and whether the brain learns and remembers. It is the answer for those who ask, 'When are we ever going to use this?'

Chapter 10 is a look into the future to an anytime, anywhere learning space. Technology is an integral part of the home and workplace. Schools must get on board and learn to use productivity the tools to lead students to more complex work.

In Chapter 11, I provide some closing remarks based on the findings in this book and on the research from the school that we restructured more than 15 years ago. A true test for any restructured school is whether students are successful and, if so, whether they are successful over time. Students in our school began to show remarkable improvement almost immediately and have built on that success over time. When we began years ago to restructure this school, we did it based on the knowledge available at that time. We did not know many of the things that we now know about how the brain works; we applied what we knew worked for kids and then built on it as new information became available. Our instincts were correct. As these principles apply in that school, I believe they can apply in any school in the country.

About the author

Donna Walker Tileston is a veteran teacher of three decades, a best-selling and award-winning author and a full-time consultant. She is the President of Strategic Teaching & Learning, which provides services to schools throughout the United States and Canada. She is the author of *Strategies for Teaching Differently: On the Block or Not* (Corwin Press, 1998), *Innovative Strategies of the Block Schedule* (Bureau of Education and Research [BER], 1999) and *What Every Teacher Should Know: The 10-Book Collection* (Corwin Press, 2004), which won the Association of Educational Publishers' 2004 Distinguished Achievement Award as a Professional Development Handbook.

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Creating an environment that facilitates learning

An enriched and supportive environment is so important that none of the other techniques discussed will be really effective unless the issues of enrichment and support are addressed first. In a world full of broken relationships, broken promises and broken hearts, a strong supportive relationship is important to students. While we cannot control the students' environments outside the classroom, we have tremendous control over their environment for 6 hours each day. We have the power to create positive or negative images about education, to develop an enriched environment and to become the catalysts for active learning. We now know that how we feel about education has great impact on how the brain reacts to it. Emotion and cognitive learning are not separate entities; they work in tandem with one another.

—Donna Walker Tileston, *Ten Best Teaching Practices* (2000)

Students enter our classrooms with a great deal going on in the brain that has nothing to do with the learning at hand. They may have had an argument at home before school or a negative experience in the corridor. They may be excited about an upcoming event or a new boyfriend or girlfriend. As teachers, we have a great deal of competition for our students' attention. Most of us were taught to begin our teaching with the cognitive centre of the brain. It is no wonder that teachers all over the country lament the fact that students are not motivated to learn. The motivation to learn is controlled by the self-system of the brain, not the cognitive system. Let me say that again: All learning begins in the self-system of the brain. It is this