

BOOK REVIEW

The Learning Brain: Lessons for Education

Sarah-Jayne Blakemore and Uta Frith

Blackwell Publishing (2005). pp.216. Pbk. £16.99

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Reviewer: Peter Shand

Sarah-Jayne Blakemore and Uta Frith attempt in this book to review the findings from neuroscience research and suggest how these findings impact on learning. The aim is to demonstrate how research in the field of neuroscience could influence the way we think about teaching. The authors state that, currently, few links have been made in the literature between brain research and education policy. The book draws on aspects of a range of educational themes such as literacy, numeracy, social-emotional development, early childhood, adolescence and lifelong learning.

The introduction gives a necessary overview of neuroscience. The reader may find the technical description of neurons (nerve cells) a little incomplete, but the introduction sets the tone for the rest of the book and a brief overview of each chapter is very helpful. The reader can go straight to a chapter of interest and will find that useful references are made to pages in other chapters where necessary.

The authors use research findings to show how the brain develops from birth through childhood to adulthood and describe the structure and function of the brain in a very readable manner. Important themes such as the malleability of the brain at all ages and its capacity to adapt in response to damage are covered, using specific examples to illustrate the potential of the brain to learn. For example, deaf people use the same sensory region of the brain (auditory cortex) when lip-reading as people with hearing use when listening to the spoken word.

The authors illustrate that much but not all of our understanding of the brain has come from work with people who have a part of their brain that is not functioning properly or has been damaged. Our understanding of the brain is limited mainly by

technology, many findings being relatively recent, through the use of non-invasive research tools such as magnetic resonance imaging (MRI).

Have the authors demonstrated the relevance of brain research to education policy and practice? The answer is an unequivocal yes, but the application of neuroscience research to pedagogy is less well developed than I would have hoped to find in a book of this title. The importance of enriched learning experiences is emphasised but not supported with important findings from areas of educational research. In this sense the book is slightly one-dimensional but that would do it an injustice. It does, however, highlight the need for careful but innovative research involving the disciplines of neuroscience with social science to develop a more detailed understanding of the complex interactions between the developing infrastructure of the brain and its environment to produce useful learning.

Overall, this a very readable account of the findings of brain research and will appeal to a wide variety of readers. Student teachers in particular will find it to be a good introduction for developing an understanding of the range of pupils they will interact with in the classroom and evaluating the range of educational tools for developing the craft of successful classroom teaching. Experienced teachers will find that the research supports many of the views they hold but this book will also broaden and deepen their understanding of learners and develop their own educational practice. Readers, whether they be members of the general public who have an interest in understanding how the brain works, people working within education or new researchers will be amazed by the findings of brain research and will want to find out more.