Dr. McDaniel is a Professor of Psychology, with a joint appointment in Education, at Washington University in St. Louis. He is the founding Co-Director of the recently inaugurated Center for Integrative Research on Cognition, Learning, and Education (CIRCLE) at Washington University. McDaniel is known for his work in the application of cognitive psychological principles to education. Over the past 25 years he has published numerous papers related to education, including topics such as pre-questions, discovery learning, feedback, mental models, analogical learning, and classroom studies on testing effects.

Since receiving his Ph.D. from University of Colorado in 1980 (in cognitive psychology), McDaniel has developed a number of other research foci in the general area of human learning and memory, including projects on: (1) Prospective memory and influences of aging and (2) investigating the learning processes by which people acquire complex concepts. An important aspect of this work is exploring individual differences in the tendency for learners to focus on abstraction versus learning of examples when attempting to acquire complex concepts.

He has published over 200 articles, chapters, and edited books in the area of human learning and memory. His editorial activities include serving as Associate Editor of the Journal of Experimental Psychology: Learning, Memory, and Cognition (1995-2000), and he has been on the editorial boards of the Journal of Educational Psychology and Cognitive Psychology.