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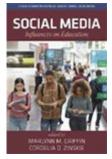
- Social Media
- Misinformation and Fake News in Education
- Teachers' Personal Epistemologies
- Use of Visual Displays in Research and Testing
- Learning Through Visual Displays
- Technology-Based Assessments for 21st Century Skills
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#### Social Media Influences on Education

Marlynn M. Griffin, Georgia Southern University; Cordelia Zinskie, Georgia Southern University

2021. Paperback 978-1-64802-655-3 \$45.99. Hardcover 978-1-64802-656-0 \$85.99. eBook 978-1-64802-657-7 \$74.

Social media is a multi-faceted tool that has been used by educators and/or their students in ways both beneficial and detrimental. Despite the ubiquitous nature of this tool, there is much research still needed on the multitude of ways that social media impacts education. This book presents research on the influences of social media on education, broadly construed. Specifically, the research included in this book is categorized into four broad areas, examining the educational influence of social media on youth and college students, professional development in content areas, higher education learning, and social justice and activism.

Chapter authors emphasize the opportunities of social media use in education and provide recommendations for how to address challenges that may arise with social media integration into the teaching and learning setting. These authors also advocate for use of social media to grow and enhance professional interaction among educators, moving beyond the social aspect of these platforms to advocate for educational and societal change. Individuals working in K-12 schools, teacher education, teacher professional development, and higher education, including pharmacy, nursing, dental and medical education, as well as those in other educational settings can use these findings to support and guide integration of social media into teaching and learning as well as their professional practice.

#### **Endorsements for Social Media: Influences on Education**

"Anyone attempting to understand these issues and the emerging, critical role of social media in education today should read the excellent edited book Social Media: Influences on Education. I've been monitoring educational media and technology research and practice for the past 40 years. In my view this book is an important contribution to a current perspective on social media and its impact from preschool to higher education and professional studies in general and social justice issues specifically." Richard E. Clark, Emeritus Professor University of Southern California

"Social Media: Influences on Education is an essential book for those seeking to understand the relationship between education and social media or to conduct social media research in education. Griffin and Zinskie have collected a variety of essays showcasing approaches to researching social media from qualitative interviews with teachers, to meta-analyses of nascent literature, and research within the platforms themselves. Providing a well-rounded introduction to the field, this book provides a foundation for those interested in understanding and exploring the impact social media has had on elementary, secondary, and tertiary education."

Naomi Barnes, Senior Lecturer

Queensland University of Technology, Australia

"Social Media: Influences on Education is a must-read for anyone interested in social media's impact on education and social justice. Grounded in the latest research, Griffin and Zinskie offer an informed, critical perspective on key issues – children's social media use, cyber-harassment, misinformation, social justice through social media, professional networking, and more – as social media pervades every aspect of our lives. Educators, parents, students, activists and social media users everywhere, if you're invested in education and social justice, this book is for you!" Christine Greenhow, Associate Professor Michigan State University

**CONTENTS:** Introduction, Marlynn M. Griffin and Cordelia D. Zinskie. **SECTION I: YOUTH AND COLLEGE STUDENTS.** Social Media Use and Cyber-Harassment Among Undergraduate College Students, Terry Diamanduros, Elizabeth Downs, and Bryan W. Griffin. Investigating Intentionality in Preservice Teachers' Personal and Professional Social Networking Site Usage, Adrie A. Koehler, Erin D. Besser, and Daniela Castellanos-Reyes. Social Media Use Among 9- to 11-Year-Old Children and School Principals' Leadership Practices, Jeremy Sanbrooks and Barbara Brown. **SECTION II: PROFESSIONAL DEVELOPMENT IN CONTENT AREAS.** "Sharing is Caring": Extending the Professional Learning Community Using Social Media, Yvonne Liljekvist, Ann-Christin Randahl, Jorryt van Bommel, Erika Sturk, and Christina Olin-Scheller. English Language Arts Teachers' Experiences Using Social Media for Instruction, Sage E. Sirotkin. "I Just Saw it on Facebook, So That Isn't True": How the Omnipresence of Social Media Complicates History Education, William Toledo. **SECTION III: HIGHER EDUCATION LEARNING.** Exploring Learner-Content Interactions in a University Course Through Social Media Use, *Christianna Andrews*. The Relationship Between Social Network Sites and Perceived Learning and Satisfaction for Educational Purposes: A Systematic Review and Meta-Analysis, *Daniela Castellanos-Reyes*, *Yukiko Maeda, and Jennifer C. Richardson*. **SECTION IV: SOCIAL JUSTICE AND ACTIVISM.** Learning About Social Justice Through Social Media: A Review of the Literature, *Rebecca Buchanan, Ethan Geheb, and Moriah Weitman*. Social Media Connections Between Educators and Advocacy Networks: The Twitter Activity of Teacher Activist Groups, *Tricia Niesz and Rebecca D'Amato*. About the Editors.



#### Misinformation and Fake News in Education

Panayiota Kendeou, University of Minnesota; Daniel H. Robinson, University of Texas; Matthew T. McCrudden, Pennsylvania State University

2019. Paperback 978-1-64113-851-2 \$45.99. Hardcover 978-1-64113-852-9 \$85.99. eBook 978-1-64113-853-6 \$74.

Today, like no other time in our history, the threat of misinformation and disinformation is at an all-time high. This is also true in the field of Education. Misinformation refers to false information shared by a source who intends to inform, but is unaware that the information is false, such as when an educator who recommends the use of a learning strategy that is not actually beneficial. Disinformation is false information shared by a source who has the intent to deceive and is aware that the information is false, such as when a politician claim that high-stakes testing will fix K-12 education when in fact there is no evidence to support this practice. This book provides recent examples of how misinformation and disinformation manifest in the field of education and remedies.

Section One, Susceptibility to Misinformation, focuses on factors that influence the endorsement and persistence of misinformation. This section will include chapters on: the appeal and persistence of "zombie concepts" in education; learner and message factors that underlie the adoption of misinformation in the context of the newly proposed Likelihood of Adoption Model; cognitive and motivational factors that contribute to misinformation revision failure; cognitive biases and bias transfer in criminal justice training; the influence of conspiratorial and political ideation on the use of misinformation; and, how educational culture and policy has historically given rise to quackery in education.

Section Two, Practices in the Service of Reducing Misinformation in Education, focuses on practices aimed at reducing the impact of misinformation, and includes chapters on: misinformation in the education of children with ASD and its influence on educational and intervention practices; the promise of using dynamical systems and computational linguistics to model the spread of misinformation; systematic attempts to reduce misinformation in psychology and education both in and out of the classroom; and the potential perils of constructivism in the classroom, as well as the teaching of critical thinking. Each section has a discussion chapter that explicates emerging themes and lessons learned and fruitful avenues for future research.

**CONTENTS:** Misinformation and Disinformation in Education: An Introduction, Panayiota Kendeou, Daniel H. Robinson, and Matthew T. McCrudden. SECTION I: SUSCEPTIBILITY TO MISINFORMATION IN EDUCATION. Zombie Concepts in Education: Why They Won't Die and Why You Can't Kill Them, Gale M. Sinatra and Neil G. Jacobson. Understanding Susceptibility to Educational Inaccuracies: Examining the Likelihood of Adoption Model, Alexandra List and Lisa DaVia Rubenstein. Psychological Tribes and Processes: Understanding Why and How Misinformation Persists, Gregory J. Trevors. Cognitive Biases in Forensic Science Training and Education, Candice Bridge and Mark Marić. Do Individual Differences in Conspiratorial and Political Leanings Influence the Use of Inaccurate Information? David N. Rapp, Megan N. Imundo, and Rebecca M. Adler. Educational Muckrakers, Watchdogs, and Whistleblowers, Daniel H. Robinson and Robert A. Bligh. Designing Interventions to Combat Misinformation Based on Factors That Increase Susceptibility, Abbey M. Loehr and Andrew C. Butler. SECTION II: PRACTICES IN THE SERVICE OF REDUCING MISINFORMATION IN EDUCATION. Modeling the Dissemination of Misinformation Through Discourse Dynamics, Laura K. Allen, Aaron D. Likens, and Danielle S. McNamara. A Nation of Curators: Educating Students to be Critical Consumers and Users of Online Information, Jeffrey A. Greene, Brian M. Cartiff, Rebekah F. Duke, and Victor M. Deekens. Misinformation in Autism Spectrum Disorder and Education, Jessica Paynter, Ullrich K. H. Ecker, David Trembath, Rhylee Sulek, and Deb Keen. From Theory to Practice: Implications of KReC for Designing Effective Learning Environments, Jasmine Kim, Reese Butterfuss, Joseph Aubele, and Panayiota Kendeou. How Attempting to Reduce Misconceptions in Psychology Reveals the Challenges of Change, Patricia Kowalski and Annette Taylor. Critical Thinking in the Post-Truth Era, Åsa Wikforss. Attempting to Reduce Misinformation and Other Inaccuracies in Education, Matthew T. McCrudden. About the Editors. About the Contributors.



#### Teachers' Personal Epistemologies Evolving Models for Informing Practice

Gregory Schraw, University of Nevada - Las Vegas; Jo Lunn Brownlee; Lori Olafson, University of Nevada, Las Vegas; Michelle Vander Veldt Brye

2017. Paperback 9781681239484 \$65.99. Hardcover 9781681239491 \$95.99. eBook 9781681239507 \$74.

The focus of this book is to explore teachers' evolving personal epistemologies, or the beliefs we hold about the origin and development of knowledge in the context of teaching. The chapters focus on a range of conceptual frameworks about how university and field-based experiences influence the connections between teachers' personal epistemologies and teaching practice. In an earlier volume we investigated preservice and inservice teachers' beliefs and teaching practices (Brownlee, Schraw and Berthelsen, 2011). While we addressed the nature of teachers' personal epistemologies, learning and teaching practices, and approaches for changing beliefs throughout teacher education programs, the volume did not address conceptual frameworks for the development of teacher's personal epistemologies. To address this gap, the book is focused on teacher educators, teachers and teacher education programmers in universities with an overall aim of highlighting how we might support preservice teachers' involvement in learning that is challenging and inservice teachers' engagement in professional experiences that promote changes in teaching practice. We argue that teachers need to be encouraged to question their beliefs and develop increasingly sophisticated beliefs about their knowledge and their students' knowledge that facilitate learning and intellectual growth.

CONTENTS: Dedication. Preface. SECTION 1: INTRODUCTION. Teachers' Personal Epistemologies: Theoretical and Practical Considerations, Gregory Schraw, Lori Olafson, and Joanne Lunn. SECTION 2: CONCEPTUAL FRAMES WORKS FOR UNDERSTANDING BELIEFS' The Functions of Beliefs: Teachers' Personal Epistemology on the Pinning Block, Helenrose Fives and Michelle M. Buehl. The Epistemic Climate of Mrs. M's Science Lesson about the Woodlands as an Ecosystem: A Classroom-Based Research Study, Florian C. Feucht. SECTION 3: DEVELOPMENT OF BELIEFS. An Account of Teachers' Epistemological Progress in Science, Jessica Watkins, Janet E. Coffey, April Maskiewicz, and David Hammer. Self-Authorship as a Framework for Understanding the Professional Identities of Early Childhood Practitioners, Angela Edwards, Jo Lunn Brownlee, and Donna Berthelsen. Understanding the Epistemic Nature of Teachers' Reasoning Behind Their Practices From an Aristotelian Perspective, Khalil Gholami. Personal Epistemology, Nature of Science and Instructional Practice: Towards Defining a Meaningful Relationship, Hasan Deniz, Exploring Bloom's Taxonomy as a Bridge to Evaluativism: Conceptual Clarity and Implications for Learning, Teaching, and Assessing, Lisa Bendixen, Denise Winsor, and Raelynn Frazier. SECTION 4: CHANGING PRESERVICE AND INSERVICE TEACHERS' BELIEFS. The Potential of Course Interventions to Change Preservice Teachers' Epistemological Beliefs, Meghan Parkinson and Liliana Maggioni. Addressing Teacher Epistemology and Ideology in History Pedagogy: Teaching Historical Thinking and Media, Jeremy Stoddard. Clearing a Path for Constructivist Beliefs: Examining Constructivist Pedagogy and Pre-Service Teachers' Epistemic and Learning Beliefs, Melissa Duffy, Krista Muis, and Mike Foy. Exploring the Factors Contributing to Preservice Elementary Teachers' Epistemological Worldviews about Teaching Science, Elif Adibelli-Sahin and Janelle M. Bailey. Teaching Knowledge and Beliefs in Preservice Teachers, Gregory Schraw, Lori Olafson, and Michelle Vander Veldt Brye. The Place of Epistemological Beliefs Within Teachers' Social Representation Systems: A Model to Explain Geography Teachers' Practices, Fernando Alexandre. SECTION 5: PERSONAL EPISTEMOLOGY IN HIGHER EDUCATION. The Personal Epistemologies of Tutors in Higher Education, Fiona Hallett and Arthur Chapman. SECTION 6: CONCLUSION. Reflection and Reflexivity: A Focus on Higher Order Thinking in Teachers' Personal Epistemologies, Jo Lunn Brownlee and Gregory Schraw. Biographies.



#### Use of Visual Displays in Research and Testing Coding, Interpreting, and Reporting Data

Matthew T. McCrudden, Victoria University of Wellington; Gregory Schraw, University of Nevada -Las Vegas; Chad Buckendahl, Alpine Testing

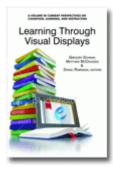
2015. Paperback 978-1-68123-101-3 \$45.99. Hardcover 978-1-68123-102-0 \$85.99. eBook 978-1-68123-103-7 \$74.

Visual displays play a crucial role in knowledge generation and communication. The purpose of the volume is to provide researchers with a framework that helps them use visual displays to organize and interpret data; and to communicate their findings in a comprehensible way within different research (e.g., quantitative, mixed methods) and testing traditions that

improves the presentation and understanding of findings. Further, this book includes contributions from leading scholars in testing and quantitative, qualitative, and mixed methods research, and results reporting. The volume's focal question is: What are the best principles and practices for the use of visual displays in the research and testing process, which broadly includes the analysis, organization, interpretation, and communication of data?

The volume is organized into four sections. Section I provides a rationale for this volume; namely, that including visual displays in research and testing can enhance comprehension and processing efficiency. Section II includes addresses theoretical frameworks and universal design principles for visual displays. Section III examines the use of visual displays in quantitative, qualitative, and mixed methods research. Section IV focuses on using visual displays to report testing and assessment data.

CONTENTS: SECTION I: INTRODUCTION. Visual Displays in Research and Testing: Theoretical and Practical Considerations, Matthew T. McCrudden, Gregory Schraw, and Chad W. Buckendahl. SECTION II: THEORETICAL FRAMEWORKS AND DESIGN PRINCIPLES. Design Principles for Visual Displays: Past, Present, and Future, Antonio P. Gutierrez, Gregory Schraw, and Andreas Stefik. Guidelines for Making Graphs Easy to Perceive, Easy to Understand, and Information Rich, David M. Lane. Examining the Type, Frequency, and Interpretative Complexity of Visual Displays Appearing in the Journal of Educational Psychology, 2010-2014, Gregory Schraw and Antonio P. Gutierrez. SECTION III: VISUAL DISPLAYS IN QUANTITATIVE, QUALITATIVE, AND MIXED METHODS RESEARCH. Promoting the Use of Path Diagrams in Quantitative Research, Dena A. Pastor and Sara J. Finney. Using Joint Displays and MAXQDA Software to Represent the Results of Mixed Methods Research, Tim Guetterman, John W. Creswell, and Udo Kuckartz. The Use of Visual Displays in Mixed Methods Research: Strategies for Effectively Integrating the Quantitative and Qualitative Components of a Study, Vicki L. Plano Clark and Khahlia Sanders. Use Of Concept Maps to Facilitate Student Learning in Research and Measurement Courses, Florian Feucht, Gwen Marchand, and Lori Olafson. SECTION IV: VISUAL DISPLAYS TO REPORT TESTING AND ASSESSMENT DATA. The Graphic Representation of Findings From the National Center on Assessment and Accountability for Special Education, Keith Zvoch and Joseph J. Stevens, Tailoring Visual Displays to Improve Test Score Interpretation: Including Indicators of Uncertainty, Brett P. Foley. Visual Displays for Reporting Test Data: Making Sense of Test Performance, April L. Zenisky. Biographies.



### Learning Through Visual Displays

Gregory Schraw, University of Nevada - Las Vegas; Matthew T. McCrudden, Victoria University of Wellington; Daniel Robinson, Colorado State University

2013. Paperback 9781623962333 \$65.99. Hardcover 9781623962340 \$95.99. eBook 9781623962357 \$74.

The purpose of the volume is to explore the theory, development and use of visual displays and graphic organizers to improve instruction, learning and research. We anticipate five sections that address (1) frameworks for understanding different types of displays, (2) research-tested guidelines for constructing displays, (3) empirically-based instructional applications, (4) using displays to promote research and theory development, and (5) using displays to report test and research data to improve consumer understanding. Authors represent a variety of perspectives and areas of expertise, including instructional psychology, information technology, and research methodologies.

The volume is divided into four sections. Section 1 provides a conceptual overview of previous research, as well as the contents of the current volume. Section 2 includes theoretical perspectives on the design and instructional uses of visual displays from major theorists in the field. These chapters discuss ways that visual displays enhance general cognition and information processing. Section 3 provides eight chapters that address the use of visual displays to enhance student learning. These chapters provide examples of how to organize content and use visual displays in a variety of ways in the real and virtual classroom. Section 4 includes three chapters that discuss ways that visual displays may enhance the research process, but especially improved data display.

**CONTENTS: Section I: Introduction** 1. Visual Displays and Learning: Theoretical and Practical Considerations (*Schraw*, *McCrudden & Robinson*) **Section II: Theoretical Frameworks** 2. Some Instructional Consequences of Logical Relations Between Multiple Sources of Information (*Low*, *Jin & Sweller*) 3. Fostering Learning with Visual Displays (*Mayer*) 4. Knowledge and Working Memory Effects on Learning from Visual Displays (*Kalyuga*) 5. Toward a Typology of Instructional Visual Displays (*Schraw & Paik*) **Section III: Using Visual Displays to Enhance Learning** 6. Static and Dynamic Visual representations: Individual Differences in Processing (*Höffler, Schmeck & Opfermann*) 7. Static Visual Displays for Deeper Understanding: How to Help Learners Make Use of Them (*Renkl & Schwonke*) 8. Strategies for Note Taking on Computer-Based Graphic Organizers (*Crooks & Cheon*) 9. Strategy Training with Causal Diagrams to Improve Text Learning

(Poloquin & Schraw) 10. Cognitive Model of Drawing Construction: Learning through the Construction of Drawings (Van Meter & Firetto) 11. Graphic Organizers as Aids for Students with Learning Disabilities (Dexter & Hughes) 12. Concept Maps for Learning: Theory, Research and Design (Nesbit & Adesope) 13. Argument Diagrams and Learning: Cognitive and Educational Perspectives (Andriessen & Baker) Section IV: Using Visual Displays to Improve Resaerch 14. Using Visual Displays to Enhance Understanding of Quantitative Research (Pastor & Finney) 15. A Typology of Visual Displays in Qualitative Analyses (Olafson, Feucht & Marchand) 16. Using Visual Displays to Inform Assessment Design and Development (Foley & Buckendahl)



#### Technology-Based Assessments for 21st Century Skills Theoretical and Practical Implications from Modern Research

Michael C. Mayrath, Harvard University; Jody Clarke-Midura, Harvard University; Daniel H. Robinson, University of Texas; Gregory Schraw, University of Nevada - Las Vegas

2012. Paperback 978-1-61735-632-2 \$45.99. Hardcover 978-1-61735-633-9 \$85.99. eBook 978-1-61735-634-6 \$74.

Creative problem solving, collaboration, and technology fluency are core skills requisite of any nation's workforce that strives to be competitive in the 21st Century. Teaching these types of skills is an economic imperative, and assessment is a fundamental component of any pedagogical program. Yet, measurement of these skills is complex due to the interacting factors associated with higher order thinking and multifaceted communication. Advances in assessment theory, educational psychology, and technology create an opportunity to innovate new methods of measuring students' 21st Century Skills with validity, reliability, and scalability.

In this book, leading scholars from multiple disciplines present their latest research on how to best measure complex knowledge, skills, and abilities using technology-based assessments. All authors discuss theoretical and practical implications from their research and outline their visions for the future of technology-based assessments.

CONTENTS: Foreword, Arthur Graesser. Introduction to Technology-Based Assessments for 21st Century Skills, Michael C. Mayrath, Jody Clarke-Midura, and Daniel H. Robinson. Evidence Centered Design for Learning and Assessment in the Digital World, John T. Behrens, Robert J. Mislevy, Kristen E. DiCerbo, and Roy Levy. 21st Century Dynamic Assessment, Edys S. Quellmalz, Michael J. Timms, Barbara C. Buckley, Jodi Davenport, Mark Loveland, and Matt D. Silberalitt. Where Streams Converge: Using Evidence-Centered Design to Assess Quest to Learn, Valerie J. Shute and Robert J. Torres. Thinking Outside the Bubble: Virtual Performance Assessments for Measuring Complex Learning, Jody Clarke-Midura, Jillianne Code, Chris Dede, Michael Mayrath, and Nick Zap. Exploring the Role of Games in Educational Assessment, Diego Zapata-Rivera and Malcolm Bauer. A Technology for Assessing Multiple Source Comprehension: An Essential Skill of the 21st Century, Susan R. Goldman, Kimberly Lawless, James Pellegrino, Flori Manning, Jason Braasch, and Kimberley Gomez. The Right Kind of GATE: Computer Games and the Future of Assessment, David Williamson Shaffer and James Paul Gee. The Best and Future Uses of Assessment in Games, Eva L. Baker, Gregory K. W. K. Chung, and Girlie C. Delacruz. Inquiry and Assessment: Future Developments from a Technological Perspective, Ton de Jong, Pascal Wilhelm, and Anjo Anjewierden. Assessing Essential Science of Nascent Inquirers, Nancy Butler Songer. Digital Assessment of the Acquisition and Utility of Biologically Secondary Knowledge: Perspectives Based on Human Cognitive Architecture, Renae Low, Putai Jin, and John Sweller. Enhancing Diagnostic Assessment of Expertise in Adaptive Learning Environments, Slava Kalyuaa. Collaborative Versus Individual Digital Assessments, Priva K. Nihalani and Daniel H. Robinson. Technology-Based Assessment in the Integrated Curriculum, Jeroen J. G. van Merriënboer and Cees P. M. van der Vleuten. Accessible Next Generation Assessments, Michael Russell.



# Assessment of Higher Order Thinking Skills

Gregory Schraw, University of Nevada - Las Vegas; Daniel H. Robinson, University of Texas

2011. Paperback 978-1-61735-505-9 \$65.99. Hardcover 978-1-61735-506-6 \$95.99. eBook 9781617355073 \$74.

This volume examines the assessment of higher order thinking skills from the perspectives of applied cognitive psychology

and measurement theory. The volume considers a variety of higher order thinking skills, including problem solving, critical thinking, argumentation, decision making, creativity, metacognition, and self-regulation.

Fourteen chapters by experts in learning and measurement comprise four sections which address conceptual approaches to understanding higher order thinking skills, cognitively oriented assessment models, thinking in the content domains, and practical assessment issues. The volume discusses models of thinking skills, as well as applied issues related to the construction, validation, administration and scoring of perfomancebased, selected-response, and constructed-response assessments.

The goal of the volume is to promote a better theoretical understanding of higher order thinking in order to facilitate instruction and assessment of those skills among students in all K-12 content domains, as well as professional licensure and cetification settings.

**CONTENTS:** Conceptualizing and Assessing Higher Order Thinking Skills, Gregory Schraw and Daniel H. Robinson. **PART** I: CONCEPTUAL APPROACHES TO UNDERSTANDING HIGHER ORDER THINKING SKILLS. An Overview of Thinking Skills, Gregory Schraw, Matthew T. McCrudden, Stephen Lehman, and Bobby Hoffman. Higher Order Thinking and Knowledge: Domain-General and Domain-Specific Trends and Future Directions, Patricia A. Alexander, Daniel L. Dinsmore, Emily Fox Emily M. Grossnickle, Sandra M. Loughlin, Liliana Maggioni, Meghan M. Parkinson, and Fielding I. Winters. Designing Assessments of Self-Regulated Learning, Philip H. Winne, Mingming Zhou, and Rylan Egan. PART II: **COGNITIVE ASSESSMENT MODELS.** Test Design With Higher Order Cognition in Mind, Joanna S. Gorin and Dubravka Svetina. A Cognitive Model for the Assessment of Higher Order Thinking in Students, Jacqueline P. Leighton. PART III: HIGHER ORDER THINKING IN CONTENT DOMAINS. The Assessment of Higher Order Thinking in Reading, Peter Afflerbach, Byeong-Young Cho, and Jong-Yun Kim. Assessing Learning From Inquiry Science Instruction, Stephanie B. Corliss and Marcia C. Linn. Assessment of Higher Order Thinking: the Case of Historical Thinking, Kadriye Ercikan and Peter Seixas. PART IV: PRACTICAL ISSUES IN THE ASSESSMENT OF HIGHER ORDER THINKING SKILLS. Issues in the Design and Scoring of Performance Assessments That Assess Complex Thinking Skills, Suzanne Lane. Incorporating Cognitive Demand in Credentialing Examinations, Susan L. Davis and Chad W. Buckendahl. Strategies for Constructing Assessments of Higher Order Thinking Skill, Susan M. Brookhart and Anthony J. Nitko. Critical Thinking in the Classroom: Teachers' Beliefs and Practices in Instruction and Assessment, Bruce Torff. Aligned by Design: A Process for Systematic Alignment of Assessments to Educational Domains, William D. Schafer. About the Authors.



# Recent Innovations in Educational Technology that Facilitate Student Learning

Daniel H. Robinson, University of Texas; Gregory Schraw, University of Nevada - Las Vegas

2008. Paperback 978-1-59311-652-1 \$45.99. Hardcover 978-1-59311-653-8 \$85.99. eBook 9781607529422 \$74.

The field of educational technology is exploding in terms of innovations being developed daily. Most of these innovations hold fascinating promise but enjoy almost no empirical support. There are educational researchers who have both developed innovations and tested their potential empirically. This book will capture the latest and most promising innovations from the leading educational technologists in the world, including animations, simulations, visualizations, navigation, manipulatives, pedagogical agents, and assessment. This book is appropriate for university courses in educational technology for those wishing to showcase the latest innovations that are accompanied by empirical support.

**CONTENTS:** Introduction, *Daniel H. Robinson and Gregory Schraw* Assessment of cognitive load in multimedia learning: Theory, methods and applications, *Fred Paas, Paul Ayres, and Mariya Pachman* How do animations influence learning? *Shaaron Ainsworth* Fostering multimedia learning of mathematics: Comparing the efficacy of animated pedagogical agents to conventional visual cues, *Robert K. Atkinson, Mary Margaret Lusk, and Alan Koenig* AutoTutor: Learning through natural language dialogue that adapts to the cognitive and affective states of the learner, *Arthur Graesser, Vasile Rus, Sidney, D'Mello, and G. Tanner Jackson* The role of self-regulated learning in learning about science with hypermedia, *Roger Azevedo* Design rationale within TELS projects to support knowledge integration, *Douglas B. Clark, Keisha Varma, Kevin McElhaney, and Jennifer Chiu* Rapid computer-based diagnostic tests of learners' knowledge, *Slava Kalyuga* Beyond clicks and semantics: Facilitating navigation via the web's social capital, Kim Lawless and P.G. Schrader Physically distributed learning with virtual manipulatives for elementary mathematics, *Taylor Martin* A computer-based, team-based testing system, *Daniel Robinson, Michael Sweet, and Michael Mayrath* 



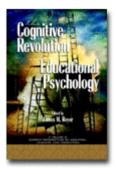
## Transfer of Learning from a Modern Multidisciplinary Perspective

Jose P. Mestre, University of Massachusetts, Amherst

2006. Paperback 1-59311-164-9 978-1-59311-164-9 \$65.99. Hardcover 1-59311-165-7 978-1-59311-165-6 \$95.99. eBook 9781607526735 \$74.

The chapters contained in the book present a new and exciting set of conceptual tools that will not only allow us to think about transfer in more productive ways, but will also enable the development of educational and measurement tools that will greatly facilitate our ability to educate the children in our schools. This volume is eclectic in bringing together researchers from psychology and science education (especially physics)—who would not normally present their ideas under the same forum—to share their views and perspectives on transfer. What we believe has emerged is a fresh look at transfer issues from a multidisciplinary perspective.

**CONTENTS:** Foreword, *Robert Dufresne, Jose Mestre and James M. Royer.* Re-Framing the Evaluation of Education: Assessing Whether Learning Transfers Beyond the Classroom, *Susan M. Barnett and Stephen J. Ceci.* How Far Can Transfer Go? Making Transfer Happen Across Physical, Temporal, and Conceptual Space, *Diane Halpern and Milt Hakel.* Fuzzy-Trace Theory: Implications for Transfer in Teaching and Learning, *Valerie F. Reyna, Christopher Wolfe and Charles J. Brainerd.* Transfer of Learning in Informal Education: The Case of Television, *Shalom Fisch, Heather Kirkorian and Daniel Anderson.* Efficiency and Innovation in Transfer, *Daniel Schwartz, John Bransford, and David Sears.* When Transfer Fails: Effect of Knowledge, Expectations, and Observations on Transfer in Physics, *Thomas Thaden-Koch, Jose Mestre, Bob Dufresne, Bill Gerace and Bill Leonard.* What Coordination Has to Say About Transfer, *Andrea diSessa and Joseph Wagner.* Dynamic Transfer: A Perspective from Physics Education Research, *Sanjay Rebello and Dean Zollman.* Resources, Framing, and Transfer, David Hammer, Andrew Elby, Rachel Scherr and Edward F. Redish. Transfer of Mathematical Problem Solving Procedures Acquired Through Physical Science Instruction: When You Don't See it, Why Not?, *Zbigniew Dziembowski and Nora Newcombe.* Transfer Between Variants of Mathematics Test Questions, *Mary E. Morley, Rene R. Lawless and Brent Brideman.* Theory, Level, and Function: Three Dimensions for Understanding the Connections Between Transfer and Student Assessment, *Daniel Kickey, Mary Ann Horne and James Pellegrino.* 



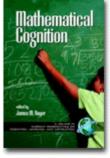
## The Cognitive Revolution on Educational Psychology

James M. Royer, University of Massachusetts

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