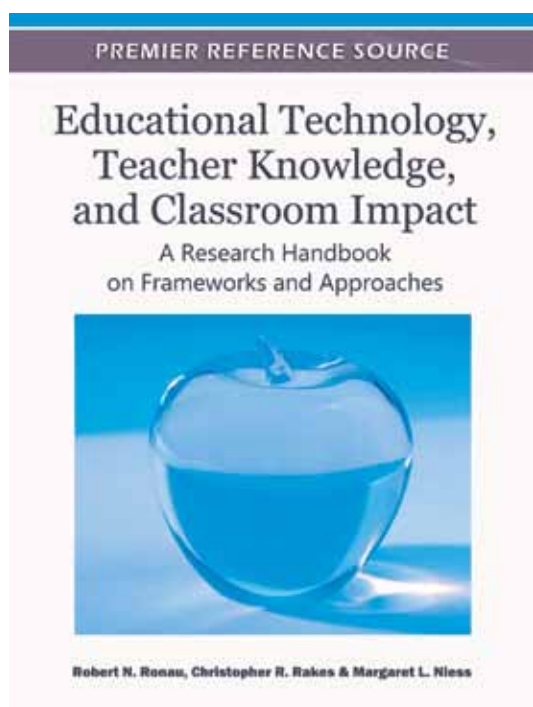


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Educational Technology, Teacher Knowledge, and Classroom Impact: A Research Handbook on Frameworks and Approaches



Robert N. Ronau (University of Louisville, USA),
Christopher R. Rakes (University of Louisville, USA)
and Margaret L. Niess (Oregon State University, USA)

Recent technological innovation has altered the way educators approach teaching and learning. These new technologies provide countless advantages in the classroom; however, we are not yet clear on how they should be implemented. The pedagogical value of specific technology tools and the cumulative effects of technology exposure over time on student learning are two areas that need to be explored in order to better determine the effectiveness of technology as a teaching tool.

Educational Technology, Teacher Knowledge, and Classroom Impact: A Research Handbook on Frameworks and Approaches provides a framework for evaluating and conducting educational technology research, sharing research on educational technology in education content areas, and proposing structures to guide, link, and build new structures with future research. This book provides essential support for compiling the resulting literature and envisioning future research directions in this area.

Topics Covered:

- Career and Technical Education (CTE)
- Educational Technology
- Future role of Educational Technology
- Integration of Disciplines
- Internal and External Classroom Constraints
- Pedagogical Strategies
- Research Design Frameworks
- Teacher Knowledge Frameworks
- Teacher Qualifications
- Technology, Pedagogy, and Content Knowledge (TPACK)

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Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Robert N. Ronau, a Professor of Mathematics Education at the University of Louisville, has research interests and publications that include implementation of instructional technology, Technology, Pedagogy, And Content Knowledge (TPACK); teacher knowledge, Comprehensive Framework for Teacher Knowledge (CFTK), and teacher preparation and assessment, Diagnostic Assessments for Mathematics and Science Teachers (DTAMS). Over the last twenty years, he has played a critical role in numerous state-wide and local grant efforts including development of State Wide Mathematics Core-Content and Assessments, LATTICE (Learning Algebra Through Technology, Investigation, and Cooperative Experience), the Secondary Mathematics Initiative (SMI) of PRISM (Partnership for Reform Initiatives in Science and Mathematics), Kentucky's state-wide systemic reform initiative, Technology Alliance, Teaching K-4 Mathematics in Kentucky, the Park City/IAS Geometry Project, and U2MAST. He currently serves as a Co-PI on the NSF Funded project, Geometry Assessments for Secondary Teachers (GAST), and on a Curriculum Analysis project for the Chief State School Officers (CCSSO).

Section 1: Strategies for Conducting Educational Technology or Teacher Knowledge Research

Chapter 1

Teacher Knowledge for Teaching with Technology:
Niess Margaret L. (Oregon State University)

Chapter 2

How Do We Measure TPACK? Let Me Count the Ways
Koehler Matthew J. (Michigan State University, USA)
Shin Tae Seob (University of Central Missouri, USA)
Mishra Punya (Michigan State University, USA)

Chapter 3

Assessment in Authentic Environments:
Hammond Thomas C. (Lehigh University, USA)
Alexander R. Curby (University of North Texas, USA)
Bodzin Alec M. (Lehigh University, USA)

Section 2: The Current Landscape in Educational Technology and Teacher Knowledge Research

Chapter 4

A Comprehensive Framework for Teacher Knowledge (CFTK):
Ronau Robert N. (University of Louisville, USA)
Rakes Christopher R. (Institute of Education Sciences, USA)

Chapter 5

The TPACK of Dynamic Representations
Bell Lynn (University of Virginia, USA)
Juersivich Nicole (Nazareth College, USA)
Hammond Thomas C. (Lehigh University, USA)
Bell Randy L. (University of Virginia, USA)

Chapter 6

Overcoming the Tensions and Challenges of Technology Integration:
Boling Erica C. (Rutgers, USA)
Beatty Jeanine (Rutgers, USA)

Section 3: Examining the Role of Educational Technology and Teacher Knowledge Research in Guiding Individual, Classroom, and School Instructional Practice

Chapter 7

TPACK Vernaculars in Social Studies Research
Lee John K. (North Carolina State University, USA)
Manfra Meghan M. (North Carolina State University, USA)

Chapter 8

Principles of Effective Pedagogy within the Context of Connected Classroom Technology:
Pape Stephen J. (University of Florida, USA)
Irving Karen E. (The Ohio State University, USA)
Bell Clare V. (University of Missouri-Kansas City, USA)
Shirley Melissa L. (University of Louisville, USA)
Owens Douglas T. (The Ohio State University, USA)
Owens Sharilyn (Appalachian State University, USA)
Bostic Jonathan D. (University of Florida, USA)
Lee Soon Chun (The Ohio State University, USA)

Chapter 9

A Model for Examining the Criteria Used by Pre-Service Elementary Teachers in Their Evaluation of Technology for Mathematics Teaching
Johnston Christopher J. (American Institutes for Research, USA)
Moyer-Packenham Patricia S. (Utah State University, USA)

Chapter 10

Technologizing Teaching:
Piro Joseph M. (Long Island University, USA)
Marksbury Nancy (Long Island University, USA)

Chapter 11

A Theoretical Framework for Implementing Technology for Mathematics Learning
Miller Travis K. (Millersville University of Pennsylvania, USA)

Chapter 12

Successful Implementation of Technology to Teach Science:
Slykhuis David A. (James Madison University, USA)
Krall Rebecca McNall (University of Kentucky, USA)

Chapter 13

The Effects of Teacher Content Authoring on TPACK and on Student Achievement in Algebra:
Lyublinskaya Irina (College of Staten Island/CUNY, USA)
Tournaki Nelly (College of Staten Island/CUNY, USA)

Chapter 14

Making the Grade:
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