

Contributors

THE EDITORS

J. Michael Spector

Professor and Associate Director
Learning Systems Institute
Florida State University
Tallahassee, Florida

M. David Merrill

Professor Emeritus
Utah State University
Logan, Utah
and

Visiting Research Professor
Florida State University
Tallahassee, Florida

Jeroen J. G. van Merriënboer

Professor and Research Program Director
Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Marcy P. Driscoll

Dean, College of Education
Florida State University
Tallahassee, Florida

CONTRIBUTING AUTHORS

Robert Atkinson

College of Education
Arizona State University
Tempe, Arizona

Paul Ayres

School of Education
University of New South Wales
Sydney, Australia

Eun-Ok Baek

College of Education
California State University
San Bernardino, California

Eva L. Baker

National Center for Research on Evaluation,
Standards, and Student Testing (CRESST)
Graduate School of Education and Information Studies
University of California, Los Angeles
Los Angeles, California

Sasha A. Barab

School of Education
Indiana University
Bloomington, Indiana

Matthew Barclay

College of Education and Human Services
Utah State University
Logan, Utah

Brian Beabout

College of Education
Pennsylvania State University
University Park, Pennsylvania

Laura Blasi

College of Education
University of Central Florida
Orlando, Florida

Elizabeth Boling

School of Education
Indiana University
Bloomington, Indiana

Eddy Boot

Department of Training and Instruction
TNO Human Factors
Soesterberg, the Netherlands

Henny P. A. Boshuizen

Educational Technology Expertise Centre
Open University of the Netherlands
Heerlen, the Netherlands

Luca Botturi

NewMinE Lab
University of Lugano
Lugano, Switzerland

Clint A. Bowers
College of Arts and Sciences
University of Central Florida
Orlando, Florida

Robert Maribe Branch
College of Education
University of Georgia
Athens, Georgia

Kerry J. Burner
College of Education
Florida State University
Tallahassee, Florida

John K. Burton
School of Education
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

Kursat Cagiltay
Computer Education and Instructional Technology
Middle East Technical University
Ankara, Turkey

Janis A. Cannon-Bowers
Institute for Simulation and Training
University of Central Florida
Orlando, Florida

Alison A. Carr-Chellman
College of Education
Pennsylvania State University
University Park, Pennsylvania

Bryan L. Chapman
Brandon Hall Research/Chapman Alliance
Sunnyvale, California

Patrick Chipman
Institute for Intelligent Systems
University of Memphis
Memphis, Tennessee

Gregory K. W. K. Chung
National Center for Research on Evaluation,
Standards, and Student Testing (CRESST)
Graduate School of Education and Information Studies
University of California, Los Angeles
Los Angeles, California

Geraldine Clarebout
Centre for Instructional Psychology and Technology
Katholieke Universiteit Leuven
Leuven, Belgium

Roy B. Clariana
College of Education
Pennsylvania State University
Malvern, Pennsylvania

Richard E. Clark
Center for Cognitive Technology
Rossier School of Education
University of Southern California
Los Angeles, California

Ruth Colvin Clark
Clark Training and Consulting
Cortez, Colorado

L. K. Curda
College of Education
University of West Florida
Pensacola, Florida

Ton de Jong
Department of Instructional Technology
Faculty of Behavioral Sciences
University of Twente
Enschede, the Netherlands

Girle C. Delacruz
National Center for Research on Evaluation,
Standards, and Student Testing (CRESST)
Graduate School of Education and Information Studies
University of California, Los Angeles
Los Angeles, California

Vanessa P. Dennen
College of Education
Florida State University
Tallahassee, Florida

Tyler Dodge
School of Education
Indiana University
Bloomington, Indiana

Tim Dornan
Manchester Medical School
University of Manchester
Manchester, England

Ian Douglas
Learning Systems Institute
Florida State University
Tallahassee, Florida

Aaron R. Duley
Ames Research Center
National Aeronautics and Space Administration
Moffett Field, California

Charles Dziuban
Research Initiative for Teaching Effectiveness
University of Central Florida
Orlando, Florida

Sean Early
Center for Cognitive Technology
Rossier School of Education
University of Southern California
Los Angeles, California.

Jan Elen
Faculty of Psychology and Educational Sciences
Katholieke Universiteit Leuven
Leuven, Belgium

David F. Feldon
College of Education
University of South Carolina
Columbia, South Carolina

Stephen M. Fiore
Cognitive Sciences Program
Department of Philosophy and Institute for Simulation
and Training
University of Central Florida
Orlando, Florida

Eric J. Fox
College of Arts and Sciences
Western Michigan University
Kalamazoo, Michigan

Theodore Frick
School of Education
Indiana University
Bloomington, Indiana

James E. Gall
College of Education and Behavioral Sciences
University of Northern Colorado
Greeley, Colorado

Andrew S. Gibbons
Instructional Psychology and Technology
McKay School of Education
Brigham Young University
Provo, Utah

Peter Goodyear
CoCo Research Centre
University of Sydney
Sydney, Australia

Barbara L. Grabowski
Instructional Systems Program
Pennsylvania State University
University Park, Pennsylvania

Arthur C. Graesser
Institute for Intelligent Systems
University of Memphis
Memphis, Tennessee

Sabine Graf
Women's Postgraduate College for Internet
Technologies
Vienna University of Technology
Vienna, Austria

Charles R. Graham
Instructional Psychology and Technology
McKay School of Education
Brigham Young University
Provo, Utah

Koeno Gravemeijer
Freudenthal Institute for Science and Mathematics
Education and Langeveld Institute
Utrecht University
Utrecht, the Netherlands

Peter A. Hancock
College of Science
University of Central Florida
Orlando, Florida

Michael J. Hannafin
Learning and Performance Support Laboratory
University of Georgia
Athens, Georgia

Robert D. Hannafin
Neag School of Education
University of Connecticut
Storrs, Connecticut

John Hedberg
School of Education
Macquarie University
North Ryde, New South Wales, Australia

Janette R. Hill
College of Education
University of Georgia
Athens, Georgia

Woei Hung
Educational Technology
University of Arizona South
Sierra Vista, Arizona

David W. Johnson
College of Education and Human Development
University of Minnesota
Minneapolis, Minnesota

Roger T. Johnson
College of Education and Human Development
University of Minnesota
Minneapolis, Minnesota

Tristan E. Johnson
Learning Systems Institute
Florida State University
Tallahassee, Florida

David H. Jonassen
School of Information Science and
Learning Technologies
University of Missouri
Columbia, Missouri

Yael Kali
Technion-Israel Institute of Technology
Technion City
Haifa, Israel

Liesbeth Kester
Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

ChanMin Kim
College of Education
Florida State University
Tallahassee, Florida

Brandon G. King
Institute for Intelligent Systems
University of Memphis
Memphis, Tennessee

Kinshuk
School of Computing and Information Systems
Athabasca University
Athabasca, Alberta, Canada

James D. Klein
College of Education
Arizona State University
Tempe, Arizona

Rob Koper
Educational Technology Expertise Centre
Open University of the Netherlands
Heerlen, the Netherlands

Tiffany A. Koszalka
Instructional Design, Development, and Evaluation
Syracuse University
Syracuse, New York

Wilmad Kuiper
University of Twente
Faculty of Behavioral Sciences
Enschede, the Netherlands

Miriam B. Larson
Educational Research and Outreach
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

Hyeon Woo Lee
College of Education
Pennsylvania State University
University Park, Pennsylvania

Jung Lee
The Richard Stockton College of New Jersey
Pomona, New Jersey

JungMi Lee
College of Education
Florida State University
Tallahassee, Florida

Kyu Yon Lim
College of Education
Pennsylvania State University
University Park, Pennsylvania

Marcia C. Linn
Graduate School of Education
University of California at Berkeley
Berkeley, California

Rude Liu
Educational Psychology
Beijing Normal University
Beijing, China

Barbara B. Lockee
School of Education
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

Linda L. Lohr
College of Education and Behavioral Sciences
University of Northern Colorado
Greeley, Colorado

Joost Lowyck
Center for Instructional Psychology and Technology
Leuven University
Leuven, Belgium

M. David Merrill
College of Education and Human Services
Utah State University
Logan, Utah
and
Learning Systems Institute
Florida State University
Tallahassee, Florida

Michael Molenda
School of Education
Indiana University
Bloomington, Indiana

D. Michael Moore
Educational Research and Outreach
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

Konrad Morgan
School of Applied Media and Information Technology
Northern Alberta Institute of Technology
Edmonton, Alberta, Canada

Gary R. Morrison
College of Education
Old Dominion University
Norfolk, Virginia

Som Naidu
Educational Technology
University of Melbourne
Victoria, Australia

Susanne Narciss
Learning and Instruction
Technische Universitaet Dresden
Dresden, Germany

Jon Nelson
Department of Instructional Technology
Utah State University
Logan, Utah

Delia Neuman
College of Information Studies
University of Maryland
College Park, Maryland

Frank Nguyen
San Diego State University
San Diego, California

Xiaopeng Ni
College of Education
University of Georgia
Athens, Georgia

Dale S. Niederhauser
College of Human Sciences
Iowa State University
Ames, Iowa

Mary Niemczyk
College of Technology and Applied Sciences
Arizona State University Polytechnic
Mesa, Arizona

Fleurie Nievelstein
Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Debra L. O'Connor
Intelligent Decision Systems, Inc.
Williamsburg, Virginia

Eunjung Oh
College of Education
University of Georgia
Athens, Georgia

Ron Owston

Institute for Research on Learning Technologies
York University
Toronto, Ontario, Canada

Fred Paas

Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Ok-Choon Park

Institute of Education Sciences
Washington, D.C.

Jay Pfaffman

College of Education, Health, and Human Sciences
University of Tennessee
Knoxville, Tennessee

Caroline Phythian-Sence

College of Arts and Sciences
Florida State University
Tallahassee, Florida

Frans J. Prins

Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Tillman J. Ragan

Instructional Psychology and Technology Program
University of Oklahoma
Norman, Oklahoma

Thomas C. Reeves

College of Education
University of Georgia
Athens, Georgia

Charles M. Reigeluth

School of Education
Indiana University
Bloomington, Indiana

Rita C. Richey

College of Education
Wayne State University
Detroit, Michigan

Remy M. J. P. Rikers

Psychology Department
Erasmus University
Rotterdam, Zuid-Holland, the Netherlands

Rhonda Robinson

Department of Educational Technology,
Research, and Assessment
Northern Illinois University
DeKalb, Illinois

Steven M. Ross

Center for Research in Educational Policy
University of Memphis
Memphis, Tennessee

Thomas Satwicz

College of Education
University of Georgia
Athens, Georgia

Wilhelmina Savenye

College of Education
Arizona State University
Tempe, Arizona

Albert Scherpbier

Medical Informatics
Maastricht University
Maastricht, the Netherlands

Richard F. Schmid

Centre for the Study of Learning and Performance
Concordia University
Montreal, Quebec, Canada

Kathy L. Schuh

College of Education
University of Iowa
Iowa City, Iowa

Norbert M. Seel

College of Education
Florida State University
Tallahassee, Florida
and
University of Freiburg
Freiburg, Germany

Valerie J. Shute

College of Education
Florida State University
Tallahassee, Florida

Roderick C. Sims

School of Education
Capella University
Woodburn, New South Wales, Australia

Kennon M. Smith
School of Education
Indiana University
Bloomington, Indiana

Patricia L. Smith
Instructional Psychology and Technology Program
University of Oklahoma
Norman, Oklahoma

J. Michael Spector
Learning Systems Institute
Florida State University
Tallahassee, Florida

John Spencer
School of Medical Education Development
University of Newcastle
Newcastle, England

Reed Stevens
Cognitive Studies in Education
University of Washington
Seattle, Washington

Johannes Strobel
Educational Technology and Centre for the
Study of Learning and Performance
Concordia University
Montreal, Quebec, Canada

John Sweller
School of Education
University of New South Wales
Sydney, New South Wales, Australia

Jan van den Akker
Faculty of Behavioral Sciences
University of Twente
Enschede, the Netherlands

Geerdina Maria van der Aalsvoort
Pedagogische Wetenschappen
Leiden University
Leiden, the Netherlands

Tamara van Gog
Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Wouter R. van Joolingen
Department of Instructional Technology
Faculty of Behavioral Sciences
University of Twente
Enschede, the Netherlands

Jeroen J. G. van Merriënboer
Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Andrew van Schaak
Vanderbilt University
Nashville, Tennessee

Richard K. Wagner
Florida Center for Reading Research
Florida State University
Tallahassee, Florida

Paul Ward
Department of Psychology and Learning
Systems Institute
Florida State University
Tallahassee, Florida

Sunnie Lee Watson
School of Education
Indiana University
Bloomington, Indiana

William R. Watson
School of Engineering and Technology
Indiana University Purdue University Indianapolis
Indianapolis, Indiana

David A. Wiley
Center for Open and Sustainable Learning
College of Education and Human Services
Utah State University
Logan, Utah

Kenneth A. Yates
Rossier School of Education
University of Southern California
Los Angeles, California

Michael Young
School of Education
University of Connecticut
Storrs, Connecticut

Diego Zapata-Rivera
Research and Development
Educational Testing Service
Princeton, New Jersey

REVIEWERS

Sharon Ainsworth

Learning Sciences Research Institute
University of Nottingham
Nottingham, England

Bonnie H. Armstrong

College of Education
Florida State University
Tallahassee, Florida

Theo J. Bastiaens

Institut für Bildungswissenschaft und
Medienforschung
Fern Universität Hagen
Hagen, Germany

Saskia Brand-Gruwel

Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

L. K. Curda

College of Professional Studies
University of West Florida
Pensacola, Florida

Sanne Dijkstra

Behavioral Sciences
University of Twente
Enschede, the Netherlands

Tyler Dodge

School of Education
Indiana University
Bloomington, Indiana

Philip L. Doughty

School of Education
Syracuse University
Syracuse, New York

Gijsbert Erkens

College of Liberal Arts and Sciences
Universiteit Utrecht
Utrecht, the Netherlands

Begoña Gros-Salvat

Department of Education
University of Barcelona
Barcelona, Spain

Dirk Ifenthaler

Department of Education
Albert-Ludwigs-Universität
Freiburg, Germany

Tristan E. Johnson

Learning Systems Institute
Florida State University
Tallahassee, Florida

Paul A. Kirschner

Educational Psychology and ICT and
Research Centre Learning in Interaction
Utrecht University
Utrecht, the Netherlands

Ard W. Lazonder

Behavioral Sciences
University of Twente
Enschede, the Netherlands

Detlev Leutner

School of Education
Duisburg-Essen University
Essen, Germany

M. David Merrill

College of Education and Human Services
Utah State University
Logan, Utah
and
Learning Systems Institute
Florida State University
Tallahassee, Florida

Konrad Morgan

Human Computer Interaction and InterMedia
Research Centre
University of Bergen
Bergen, Norway

Richard A. Schwier

College of Education
University of Saskatchewan
Saskatoon, Saskatchewan, Canada

H. Barbara Sorensen

United States Air Force Research Laboratory
Mesa, Arizona

J. Michael Spector

Learning Systems Institute
Florida State University
Tallahassee, Florida

Jan-Willem Strijbos

Department of Educational Sciences
Leiden University
Leiden, the Netherlands

Carla van Boxtel

Graduate School of Teaching and Learning
University of Amsterdam
Amsterdam, the Netherlands

Marcel van der Klink

Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Hans van der Meij

Behavioral Sciences
University of Twente
Enschede, the Netherlands

Jeroen J. G. van Merriënboer

Professor and Research Program Director
Educational Technology Expertise Center
Open University of the Netherlands
Heerlen, the Netherlands

Andrew van Schaack

College of Education and Human Development
Vanderbilt University
Nashville, Tennessee

Monique Volman

Centre for Educational Training, Assessment,
and Research (CETAR)
Vrije Universiteit Amsterdam
Amsterdam, the Netherlands

Hui-Ling Wu

College of Education and Human Development
Texas A&M University
College Station, Texas