About the Contributors

Christopher Was is an Associate Professor in the Department of Psychological Sciences at Kent State University. He began his career working in a residential treatment facility for adjudicated youth as a teacher and research coordinator for the Odyssey Project, sponsored by the Child Welfare League of America. He received his Ph.D. from the University of Utah in Educational Psychology, with an emphasis in learning, memory and cognition. His research interests are in the areas of models of working memory, complex cognitive processes, and metacognition. More recently his research has focused on implicit learning processes and their relationship to intelligence. Dr. Was uses eye tracking technologies in his research to investigate the connection between implicit cognitive processing and the explicit learning that results from these processes. He has published over 50 peer-reviewed papers, chapters, and refereed conference proceedings in the areas of learning, educational psychology, and cognitive psychology.

Frank J. Sansosti, Ph.D., NCSP is an Associate Professor in the School Psychology at Kent State University. He has extensive experience working with individuals with developmental disabilities in both school and clinic settings. As a practitioner he provided coaching and technical assistance for early intervention and best practice approaches for students with low-incidence disabilities in inclusive settings, and coordinated efforts between parents, teachers, administrators, and district level personnel. Currently, Dr. Sansosti’s primary research and professional interests focus on the development and implementation of behavioral and social skills interventions for individuals with developmental delays, as well as the use of eye-tracking technologies as a tool for investigating the academic and social difficulties of students with disabilities. Dr. Sansosti is an active researcher, as evidence by over 40 publications and more than 75 professional workshops at local, regional, national, and international venues.

Bradley J. Morris is a Developmental Cognitive Scientist whose research program includes basic research in cognitive development and its application in designing and assessing effective STEM instruction in formal and informal settings. His research focuses on the development of Scientific and Mathematical reasoning and Motivation. The goal of his research program is to identify mechanisms underlying children’s reasoning (e.g., strategy acquisition) and motivation (e.g., praise type) using a variety of experimental methods (e.g., eye tracking), technological implementations (e.g., apps that measure informal STEM engagement), and computational models.

Dor Abrahamson is an Associate Professor of Cognition and Development: Secondary Mathematics Education, in the Graduate School of Education, University of California at Berkeley. Abrahamson is
a design-based researcher who develops and evaluates theoretical models of mathematics learning and teaching by analyzing empirical data collected during implementations of his innovative pedagogical design. Drawing on embodiment and sociocultural perspectives, Abrahamson views grounded learning as formal signification of informal knowledge. He focuses on student and teacher use of various modalities, media, discursive genres, semiotic systems, metaphor, and inference as they co-accomplish the reconciliation of perceptually immediate and culturally mediated constructions of situated phenomena. At the core of Abrahamson’s practice are cognitive domain re-analyses of foundational mathematical content with an eye on creating learning materials and activities. This research program also informs emerging frameworks guiding the design of learning materials and activities. Abrahamson has worked mostly on the concepts of proportion, probability, and algebra, and his artifacts include both traditional media, such as a tubful of marbles, and recent technologies, such as remote-controlling virtual objects on a computer screen, as well as agent-based simulations of stochastic phenomena from a complexity perspective. Abrahamson directs the Embodied Design Research Laboratory and is a recipient of a National Academy of Education/Spencer Postdoctoral Fellowship for Seeing Chance, a design-based research project that investigated how students build personal meaning for probability concepts. Abrahamson has published peer-reviewed articles in leading educational research journals, including Cognition and Instruction, Educational Studies in Mathematics, Journal of the Learning Sciences, Mathematical Thinking and Learning, and Technology, Knowledge, and Learning. He is co-author (with Robb Lindgren, UIUC) of a chapter on “Embodiment and Embodied Design” in the forthcoming 2nd Edition of the Cambridge Handbook of the Learning Sciences, and has received a National Science Foundation award (co-PI with Michael Neff, UC Davis) for the Cyberlearning project Gesture Enhancement of Virtual Agent Mathematics Tutor.

**Martha W. Alibali** is a Professor of Psychology and Educational Psychology at the University of Wisconsin-Madison. Her research investigates processes of knowledge change in cognitive development and mathematics learning. A central focus of her work is on the role of manual gestures in learning and instructional communication.

**Llorenç Andreu** received his MS in Cognitive Science and Language in 2007 in the Universitat de Barcelona. In 2010 he got the PhD in Cognitive Science and Language at the same university. Currently he is associate professor at the Universitat Oberta de Catalunya and member of the Grup de Recerca en Cognició i Llenguatge (GRECIL) which main interest is the study of the language processing in children with SLI.

**Virginia Clinton** holds a masters’ degree from the Department of Teaching and Learning from New York University and a doctorate in Educational Psychology from the University of Minnesota. Her postdoctoral work as a Research Associate at the University of Wisconsin - Madison focused on improving the integration of verbal and visual information in mathematics lessons. She is currently a faculty member at the University of North Dakota.

**Anne E. Cook** is Professor and Chair of the Department of Educational Psychology at the University of Utah. She has experience in using eye movements to study both basic and applied issues in reading comprehension.
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**Jennifer L. Cooper** received her PhD in Psychology from Rutgers University – New Brunswick. In 2010, she started at the University of Wisconsin – Madison as a postdoctoral fellow where her work included research on visual and verbal representations in mathematics learning. She is currently at Wesleyan University as a postdoctoral fellow and instructor, pursuing research and teaching in statistics education and cognitive psychology. Overall, her research is on conceptual development, learning, and problem solving, with focuses on the development of statistical literacy and the effects of different types of visual representations on children’s and adults’ learning and problem solving.

**Arden DeMarco** is a former Master’s student at WLU under supervision of Dr. Jeff Jones.

**Domenica De Pasquale** is completing her Doctorate in Developmental Psychology at Wilfrid Laurier University. Her research interests focus on early social and cognitive development, and educational interventions. Specifically, her research examines parent perceptions toward technology as an instructional tool and parental scaffolding of children engaged with digital media.

**Malinda Desjarlais** obtained her graduate degree from Brock University in Ontario, Canada. She began teaching in the Department of Psychology at Mount Royal University in Calgary, Alberta, Canada in 2011. Her research interests include the use of digital technology and its impact on social and cognitive development.

**Carolien Duijzer** completed her research master Educational Sciences: Learning in Interaction at Utrecht University in 2015, after having completed a combined bachelor’s degree Art history and pre-master Educational Sciences at Utrecht University in 2013. The topic of her masters’ thesis comprised children’s emerging proportional reasoning. Carolien has started her PhD project at Utrecht University in August 2015.

**Alexander Eitel** received his PhD at the University of Tuebingen in 2013. He worked at the Leibniz-Institut für Wissensmedien in Tuebingen from 2009 to 2015. He is currently working as a postdoctoral researcher at the University of Freiburg.

**Michael Eskenazi** is a faculty member in the Department of Psychology at Stetson University. His research program involves studying the process by which we identify words during silent reading, understanding the different word identification processes used by low-skill and high-skill readers, and investigating the process by which we skip words during silent reading. He is also interested in literacy among special populations including blind and deaf readers.

**Abraham E. Flanigan** is a Doctoral candidate in the Department of Educational Psychology at the University of Nebraska-Lincoln.

**Jocelyn R. Folk** is a faculty member in the Department of Psychological Sciences at Kent State University. Her research interests are centered on understanding the cognitive processes and representations involved in written language processing (reading and spelling), including investigations into individual differences in reading and spelling skill. Eye movement monitoring plays a central role in her research program, as do case studies of individuals with language difficulties as a result of neurological impairments.
**Alexandra Gottardo** is a professor in the Psychology Department at Wilfrid Laurier University. Her expertise is in the area of literacy and links between oral and written language skills.

**Jeffery A. Jones** is a Professor of Psychology at Wilfrid Laurier University and the Director of the Laurier Centre for Cognitive Neuroscience. He investigates the psychological and neurological foundations of human communication. More information regarding his research is available at the following URL: http://www.joneslab.ca/.

**Angela G. Junglen** is a Kent State University graduate student currently in the Department of Psychological Sciences. She received her masters at Kent State in Educational Psychology, with her research concentrated on the role of praise and how it impacts children’s motivation.

**Elizabeth Kaplan** received her B.A. in Cognitive Science at Johns Hopkins University and currently works at the Laboratory for Developmental Studies at Harvard University.

**Rachel Kaplan** completed her undergraduate studies in Developmental Psychology at Wilfrid Laurier University. Her interests include cognitive development, and learning in various contexts throughout the lifespan, particularly during childhood.

**Kenneth A. Kiewra** is professor of educational psychology at the University of Nebraska-Lincoln. His research investigates student note taking, graphic organizers, the SOAR teaching and studying method he developed, and talent development—particularly the roles parents play.

**Tatyana Levari** received her B.A. in Psychology at Williams College. She is currently a doctoral candidate in Developmental Psychology at Harvard University.

**Linlin Luo** is a doctoral candidate in the Department of Educational Psychology at the University of Nebraska-Lincoln.

**Joseph E. Michaelis** is a Ph.D. student in Educational Psychology – Learning Sciences at the University of Wisconsin. His research includes the study of learning environments and tools which best promote student interest and learning at different phases of interest development in STEM. This work is conducted in and out of classrooms as well as in lab based settings, with intelligent tutoring systems and robotics using data collected via observation, interview, survey and eye-tracking.

**Mitchell J. Nathan** is Professor of Educational Psychology (Learning Sciences) at the University of Wisconsin-Madison, and a founding officer of the International Society of the Learning Sciences. His research is largely rooted in cognitive, embodied and sociocultural perspectives on the nature of knowledge, learning, communication, and instruction in mathematics and engineering.

**Alina Nazareth** studies spatial ability, a skill linked with success in the STEM fields. In particular, she is interested in exploring the role of cognitive strategy, gender beliefs and stereotypes, spatial activity experience, and spatial anxiety in explaining individual differences in mental rotation performance. Her research aims to address the gender-gap in the STEM fields through her research.
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Rosalie Odean is a Doctoral Student in the Developmental Science program at Florida International University. She studies the comprehension of spatial terms by bilingual English-Spanish speaking toddlers utilizing eye-tracking. In particular, she is interested in documenting and explaining individual differences in language processing efficiency for spatial words.

Chandni Parikh is a doctoral student in the Norton School of Family and Consumer Sciences at the University of Arizona. She researches eye-tracking with infant siblings of children diagnosed with autism spectrum disorders (ASD) as well as screening, diagnostic, and early intervention practices within the young ASD population.

Markeya S. Peteranetz is a doctoral student in the Department of Educational Psychology at the University of Nebraska-Lincoln.

Shannon M. Pruden’s primary research interests lie at the intersection between developmental psychology, cognitive science, linguistics, and education. Employing a variety of methodologies (e.g., eye-tracking and naturalistic studies of language), and age groups (0-5 years; emerging adulthood), her research focuses on the development of early language abilities, with an emphasis on the growth of children’s spatial language. More specifically, she has been examining which factors influence children’s early language development, such as the role of cognitive, biological, and environmental factors, including early conceptual knowledge, child gender, and socioeconomic status. She also studies the development of spatial abilities and how language influences the development of spatial skills.

Pedro Rodrigues has obtained his PhD in Clinical and Health Psychology at Lisbon University Institute (ISCTE-IUL) in 2013. He has been working as an Auxiliary Professor at ISMAT since 2013 and is currently a Research Associate at the Psychology Research Center at ISMAT. He has collaborated in several national and international research projects, including a bilateral collaboration project of the health effects of dental amalgam in children. He has published a number of international scientific articles on neuropsychological assessment, with a focus on normative data on different cognitive fields and the protective effect of normal education on age-related changes in different cognitive domains.

Pedro J. Rosa holds a Ph.D degree in health psychology from the Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal. He is currently an Assistant Professor with the Universidade Lusófona de Humanidades e Tecnologias, Lisbon, Portugal, and the Coordinator of the Experimental Psychology Lab, at Instituto Superior Manuel Teixeira Gomes, Portimão, Portugal. He is a researcher with the Association for Research and Development in Cognitive and People-Centric Computing and with CIS/ISCTE - IUL. His current research interests include the study of attentional and emotional processes to visual and auditory stimuli through eye tracking and psychophysiological recording. He is the mentor of the International Conference on Eye Tracking, Visual Cognition and Emotion in Portugal and founded the First Meeting of Cognitive Oculometry in Portugal in 2015.

Katharina Scheiter studied psychology at the University of Goettingen (diploma: 1999) and completed her PhD in 2003 at the University of Tuebingen. Since 2009 she heads the Multiple Representations Lab at the Leibniz-Institut für Wissensmedien in Tuebingen, where together with her fellow co-workers she...
Mónica Sanz-Torrent received her PhD in Cognitive Science and Language in the Universitat de Barcelona. Currently she is associate professor at the same university and member of the Grup de Recerca en Cognició i Llenguatge (GRECIL) which main interest is the study of the language processing in children with SLI.

Marieke van der Schaaf is an Associate Professor and director of the master programme Educational Sciences at Utrecht University. Her research focuses on feedback, learning analytics and expertise development of professionals. She led several research projects on educational innovations and performance assessments in secondary education, higher education and within professions, for instance regarding image interpretation skills of radiologists.

Shakila Shayan is a senior researcher at the Educational Sciences group of Utrecht University. Her research interest lies at the intersection between developmental psychology, language acquisition, cognitive science, computer science and education. She is the Primary Investigator of a multidisciplinary project investigating embodied expertise and its implications for learning mathematical concepts. She obtained her PhD in cognitive science and computer science from Indiana University, Bloomington, US. She has also worked as a postdoctoral researcher at the Max Planck Institute for psycholinguistics in Nijmegen, Netherlands, where she was involved in several projects investigating the nature of categories and concepts across languages and cultures.

Eileen Wood is a full professor in the Developmental Area of the Department of Psychology at Wilfrid Laurier University. She has authored numerous books, chapters and refereed research publications. She has received both research and teaching awards. Dr. Wood’s research examines how children and adults acquire, retain and understand information presented through traditional text-based delivery systems and digital media, specifically computers and the Internet. In addition, her research looks at the social and cognitive outcomes of learners in both formal educational environments (e.g., classrooms) and informal learning environments (e.g., gaming, home) and the instructional supports that assist learning in these environments. She also examines issues related to academic integrity in higher education environments.

Shannon Zentall has a PhD from the University of Notre Dame in Developmental Psychology. She is currently an Associate Professor at The University of Akron in Child and Family Development. Her research interests focus how social context contributes to children’s emotional, physiological, and cognitive development. Her current line of research focuses on the development of child motivation over time (e.g., how does praise influence children differently over time). Specifically, how do early parent-child and teacher interactions predict later motivation?