Committee on Assessment of 21st Century Skills

Workshop Speaker Biographical Sketches

Eric Anderman is Interim Director of the School of Educational Policy and Leadership, and Professor of Educational Psychology at The Ohio State University. Prior to arriving at Ohio State, Dr. Anderman was the Associate Dean for Research and Graduate Studies and Professor of Educational Psychology in the College of Education at the University of Kentucky. He earned his Ph.D. in Educational Psychology from the University of Michigan in 1994, and he has a Masters Degree from Harvard University and a Bachelor of Science Degree from Tufts University. His area of research is adolescent motivation; he focuses in particular on (a) the effects of school transitions on student motivation, (b) academic cheating, (c) the effects of teachers' instructional practices on student motivation, and (d) HIV/pregnancy prevention in adolescent populations. His research has been funded by the National Institutes of Health (NIH), the U.S. Department of Education, and the Spencer Foundation. He served as the Associate Editor of the *Journal of Educational Psychology* from 2002 through 2009, and he currently serves as an Editorial Board Member for several journals in his field. In 1999, Dr. Anderman won the Early Career Contribution Award from Division 15 of the American Psychological Association. He is a Fellow of both APA and AERA, and he served as President of Division 15 of APA in 2008. He is currently co-editing *the International Handbook of Academic Achievement*, to be published by Routledge next year, with John Hattie. Dr. Anderman is a standing member of the IES Social and Behavioral Review Panel, and he has served as Chair for that Panel.

Eva Baker, Distinguished Professor in the divisions of Psychological Studies in Education and Social Research Methodology at the UCLA Graduate School of Education and Information Studies, Eva L. Baker has directed the UCLA Center for the Study of Evaluation (CSE) since 1975. She is also Director of the National Center for Research on Evaluation, Standards, and Student Testing (CRESST), a competitively awarded national institution funded by the U.S. Department of Education. Dr. Baker is a member of the National Academy of Education and a recipient of the 2007 ETS Henry Chauncey Award for Distinguished Service to Assessment and Educational Science. She was a congressionally appointed member of the National Council on Education Standards and Testing and chair of the Board on Testing and Assessment, National Research Council, The National Academies (2000-2004). Dr. Baker is a former president of the American Educational Research Association (2006-2007), former president of the Educational Psychology Division of the American Psychological Association, and a former editor of Educational Evaluation and Policy Analysis. She was co-chair of the committee to revise the Standards for Educational and Psychological Testing (1999). She has an extensive bibliography. Dr. Baker's research is focused on the integration of instruction and measurement, including design and empirical validation of principles for developing instructional systems, and new measures of complex human performance. She is presently involved in the design of technologically sophisticated testing and evaluation systems of assessment in large-scale environments for both military and civilian education.

John Behrens is Director of Networking Academy Learning Systems Development at Cisco. Dr. Behrens is responsible for the design and development of the Networking Academy's global on-line instructional offerings that integrate interactive curricular and assessment technologies with hands on activities. These curriculum, assessment, and gaming tools serve more than 1,000,000 students per year in 160 countries across more than 10 languages.

Dr. Behrens has published chapters in a number of widely used psychology reference books along with articles in a range of educational, psychological, and statistical journals. His research interests focus on the intersection of cognitive, statistical and computing issues in instruction, assessment, and on-line learning. Dr. Behrens is an Adjunct Assistant Research Professor in the Department of Psychology at the University of Notre Dame (Indiana, USA). Dr. Behrens received his Master's Degree in Special Education and Ph.D. in Educational Psychology from Arizona State University. He received his B.A. in Psychology and Philosophy from the University of Notre Dame. Prior to joining Cisco, he was an Associate Professor of Psychology in Education at Arizona State University.

Deborah Boisvert is the Principal Investigator for the Boston Area Advanced Technological Education Connections (BATEC), an NSF-funded regional center of excellence that is aimed at creating a coordinated regional IT education system, spanning area secondary schools, community colleges, and UMass-Boston. She has extensive experience developing and implementing educational programs for K-12 students and continuing education programs for secondary school, community college and university faculty. Ms. Boisvert has created enduring and effective connections at the academic and administrative levels among the network of community colleges and secondary schools that feed students into the UMass-Boston campus. Her role as the Director of the BATEC Center for IT at the University provides her with a broad-level perspective on regional planning for workforce training and education. Ms. Boisvert specializes in the development and implementation of initiatives to advance the educational and professional objectives of area high school and community college students. Ms. Boisvert has developed and/or conducted numerous workshops, summer institutes, and graduate courses that connect the content areas of literacy, math and science to the technologies that enhance learning and understanding. Ms. Boisvert was the principal writer for the curriculum of the Technology Goes Home@School, an initiative bridges the digital divide by equipping families of 4th graders in the Boston Public Schools with beginning technology skills and a new computer for their home. She led the creation, course development, and recruitment of high school students and teachers for Camp Telecom, a three-week summer camp sponsored by Massachusetts Telecommunications Council and held at the University of Massachusetts Boston. She played leadership roles in IT Futures and Telecom Futures-a series of workshops on the technology and telecommunications fields for high school students, teachers, and guidance counselors. In addition, she helped lead the development of and serves on the advisory board of the Teacher in Industry Externship Program, a six-week summer externship for teachers in high-tech industry settings.

Heather Butler is completing her Ph.D. in cognitive psychology at Claremont Graduate University. She conducts research on critical thinking and legal psychology at Claremont McKenna College, and teaches at California State University Fullerton. Heather is part of the research team that developed Operation ARIES!, an educational game that teaches scientific reasoning. She has written several book chapters related to critical thinking, psychological literacy, and assessment.

Susan Case is currently the Director of Testing for the National Conference of Bar Examiners. She is responsible for the multi-state bar examinations that are used to license lawyers for practice in the United States. The examinations include multiple-choice, essay, and performance test formats. She also has responsibility for the testing research agenda, and production of educational programming and publications designed to raise the quality of licensure for lawyers. From 1976 to 2001, she worked at the National Board of Medical Examiners with responsibilities for research and for medical licensure and specialty-board examination programs. She has worked on various assessment methods, including oral and essay exams, written clinical simulations, standardized patients for assessment of clinical skills, and new item formats for both paper-and-pencil and computer-administered exams. Her publications, lectures, and workshops have dealt with all aspects of testing. From 1991 through 2001, Dr. Case directed Step 2 of the United States Medical Licensing Examination (USMLE), the multiple-choice test covering the clinical sciences. In that role, she coordinated the introduction of computer-based administration

of USMLE Step 2 in 1999. Her PhD and MS degrees are in measurement and evaluation; her undergraduate majors were mathematics and mathematical statistics.

Timothy Cleary is currently an Associate Professor and Training Director of the School Psychology Program in the Department of Educational Psychology at the University of Wisconsin-Milwaukee. His primary areas of research interest include alternative self-regulation and motivation assessment techniques, such as Self-Regulated Learning Microanalysis, and the development and evaluation of applied, academic self-regulation intervention programs including the Self-Regulation Empowerment Program (SREP). Cleary's research has targeted various populations, such as urban, minority youth as well as academically at-risk secondary school and college-aged students. In addition, he has extended his research across multiple contexts including math and science achievement in school settings as well as in sport domains, such as basketball and dart-throwing. Dr. Cleary has published approximately 10 peer-reviewed articles in the past few years, along with several book chapters. In addition, he has received approximately $100,000 in grants over the past few years to fund his research on self-regulation and academic achievement in urban school contexts. Dr. Cleary currently serves as a Junior Program Chair of the Studying and Self-Regulated Learning – Special Interest Group (SSRL-SIG) of the American Educational Research Association (AERA), serves on the editorial boards for the *Journal of School Psychology* and *Psychology in the Schools*, and reviews for several other journals as an ad hoc reviewer. Dr. Cleary earned his B.S. in Psychology from Manhattan College (1994). He received his M.S. in Education and Ed.S. in School Psychology from Queens College (2000) and earned his Ph.D. in Educational Psychology from CUNY Graduate School and University Center (2001).

Steven M. Fiore PhD is faculty with the University of Central Florida's Cognitive Sciences Program in the Department of Philosophy and Director of the Cognitive Sciences Laboratory at UCF's Institute for Simulation and Training. He earned his Ph.D. degree in Cognitive Psychology from the University of Pittsburgh, Learning Research and Development Center. He maintains a multidisciplinary research interest that incorporates aspects of the cognitive, social, and computational sciences in the investigation of learning and performance in individuals and teams. He is co-Editor of recent volumes on Macrocognition in Teams (2008), Distributed Learning (2007), Team Cognition (2004), and he has co-authored over 100 scholarly publications in the area of learning, memory, and problem solving at the individual and the group level. As Principal Investigator and Co-Principal Investigator he has helped to secure and manage approximately $15 Million in research funding from organizations such as the National Science Foundation, the Office of Naval Research, the Air Force Office of Scientific Research, and the Department of Homeland Security.

Joachim Funke is Full Professor for Cognitive, Experimental, and Theoretical Psychology at Heidelberg University, Germany. His research interests are thinking and problem solving, especially, problem solving with complex computer-simulated scenarios. He developed instruments for the assessment of complex problem solving abilities. He got grants from German Research Foundation, German State Ministry of Education and Research, and European Community. In 2007, he received a Marsilius Fellowship from the German Excellence Initiative. Since 2010, he is Chair of the PISA Problem Solving Expert Group. Books: *Complex problem solving* (1995, ed), together with Peter Frensch; *Problemlösendes Denken* [Problem solving and thinking] (2003); *Enzyklopädie Denken und Problemlösen* [Encyclopedia on Thinking and Problem Solving] (2006, ed); *Denken: Urteilen, Entscheiden, Problemlösen* [Thinking: Judgement, Decision Making, Problem Solving] (2011), together with Tilmann Betsch and Henning Plessner. Funke received his Diploma (MSc) at Trier University (1980), his doctoral degree (Dr. rer.nat.) at Trier University (1984) and his habilitation at Bonn University (1990). Homepage: http://funke.uni-hd.de/

Lynn Gracin Collins is EVP and Chief Scientist for SH&A and Fenestra. Spanning more than two decades of corporate and consulting experience Lynn has helped companies address a

variety of organizational issues in talent management. Some of Lynn 's select clients include Interpublic Group, Verizon, Kellogg's, MetLife, UBS, Deutsche Bank, Merrill Lynch, among others. As a practitioner-scientist Lynn innovates new practices that are high impact, realistic and based on sound science. She is also actively involved in spurring on scientific research based on business practices. Recently she has:

   • Developed a groundbreaking leadership development program that combines interactive learning, web-based "day in the life" simulations, role playing, and coach feedback into a powerful development tool.

   • Successfully pioneered a revolutionary web based platform to deliver assessment centers guided by best practices and continues to be a forerunner in this area.

   • Developed a global management assessment center in partnership with a large telecomm which received honorable mention for the innovative product award at IPMAAC.

   • Developed innovative evaluations of talent management value which include Return-on-Investment, organizational impact, validity and reliability.

   • Developed new programmatic quality assurance techniques for virtual programs. Prior to joining SH&A and Fenestra, she was a Project Manager at HRStrategies and was associated with the startup of Applied Psychological Techniques (APT). She has also held corporate positions at Citibank, Avon, and AT&T and a faculty position at University of Georgia. Lynn holds a Ph.D. in Industrial and Organizational Psychology from the Graduate Center of the City of New York . She is a member of the American Psychological Association, Society for Industrial and Organizational Psychology and of the Metropolitan New York Association for Applied Psychology (METRO). Lynn is currently writing a chapter on Assessment Centers for Adult Development for the Oxford Handbook of Lifelong Learning. She has presented on technology and assessment centers at SIOP's Annual Conference, SIOP's Leadership Consortium, APA, and NJOD.

Art Graesser is presently a full professor in the Department of Psychology, an adjunct professor in Computer Science, and co-director of the Institute for Intelligent Systems at the University of Memphis. In 1977 Dr. Graesser received his Ph.D. in psychology from the University of California at San Diego. He was a visiting researcher at Yale University in 1983, Stanford University in 1984, and Carnegie Mellon University in 1991. Dr. Graesser's primary research interests are in cognitive science, discourse processing, and the learning sciences. More specific interests include knowledge representation, question asking and answering, tutoring, text comprehension, inference generation, conversation, reading, education, memory, expert systems, artificial intelligence, and human-computer interaction. He served as editor of the journal *Discourse Processes* (1996–2005) and is the current editor of *Journal of Educational Psychology*. He is president of the Society for Text and Discourse and Artificial Intelligence in Education. In addition to publishing over 400 articles in journals, books, and conference proceedings, he has written two books and edited nine books (one being the *Handbook of Discourse Processes*). He has designed, developed, and tested cutting-edge software in learning, language, and discourse technologies, including AutoTutor, Coh-Metrix, HURA Advisor, SEEK Web Tutor, MetaTutor, ARIES, Question Understanding Aid (QUAID), QUEST, and Point&Query.

Rick Hoyle is Professor of Psychology and Neuroscience at Duke University, where he serves as Associate Director of the Center for Child and Family Policy and Director of the Methodology and Statistics Core in the Transdisciplinary Prevention Research Center. Hoyle earned his PhD in psychology (social psychology program) from the University of North Carolina at Chapel Hill in 1988. After one year at Duke, he moved to the Department of Psychology at the University of Kentucky, where he progressed from assistant professor to professor and chair before returning to Duke in 2003. At present, the primary focus of his research program is the study of basic cognitive, affective, and social processes involved in self-regulation. This research program comprises two streams. One primarily involves controlled laboratory experiments and focuses on the social and psychological resources that enable successful self-regulation. The other primarily involves correlational and field research and focuses on personality and social processes associated with failures of self-regulation as they manifest in problem behavior. Hoyle edited the recently published volumes, *Handbook of Individual Differences in Social Behavior* (Guilford, 2009, with Leary) and *Handbook of Personality and Self-Regulation* (Wiley-Blackwell, 2010). He

is a Fellow of the Association for Psychological Science, the American Psychological Association, the Society for Experimental Social Psychology, and the Society for the Psychological Study of Social Issues.

Nathan Kuncel is the Marvin D. Dunnette Distinguished Professor of Industrial-Organizational Psychology and a McKnight Presidential Fellow at the University of Minnesota where he also earned his doctorate in Industrial-Organizational Psychology in 2003. Prior to returning to the University of Minnesota he was faculty at the University of Illinois. Nathan's research focuses broadly on how individual characteristics (intelligence, personality, interests) influence subsequent academic, work, and life success as well as efforts to model and measure success. His research has appeared in *Science*, *Psychological Bulletin*, *Review of Educational Research*, *Perspectives on Psychological Science*, among others. He is currently an associate editor handling the Industrial and Organizational section of the forthcoming *APA Handbook of Testing and Assessment in Psychology*. Nathan received the Cattell Early Career Research Award from the Society of Multivariate Experimental Psychology and the Anne Anastasi Early Career Award from the American Psychological Association – Division 5, Evaluation, Measurement, and Statistics.

Robert Lenz is Chief Executive Officer and co-founder of Envision Schools. For the past 20 years, he has served schools as a teacher, student activities director, reform leader and principal. In the 1990's, Bob was a leader in Sir Francis Drake High School's (San Anselmo, CA) whole school redesign effort. Under Bob's leadership, Drake was named a "New American High School" (1 of 13 in 1999) by Secretary of Education, Richard Riley and featured on the cover of US News and World Report as an example of high school reform that works. He is recognized nationally as a leader in high school redesign, project-based learning, 21st Century skills education and performance assessment. Envision Schools' education model has opened a path to college access and success for underserved urban students at Envision's four Bay Area college prep high schools.
Bob received his B.A. from St. Mary's College and a M.A. in Education from San Francisco State University. He serves on the Board of Directors for the Buck Institute for Education and on the Advisory Council for the St. Mary's College School of Education.

Filip Lievens received his Ph.D from Ghent University, Belgium and is currently Professor at the Department of Personnel Management and Work and Organizational Psychology at the same university. He is the author of over 100 articles in the areas of organizational attractiveness, high-stakes testing, and selection including assessment centers, situational judgment tests, and web-based assessment. He also gave over 200 presentations, workshops and invited keynote presentations across all continents (Europe, USA, Asia, Africa, and Australia). Dr. Lievens serves in the editorial board member of both *Journal of Applied Psychology* and *Personnel Psychology* and was a past book review editor of the *International Journal of Selection and Assessment*. Filip Lievens has received several awards. For instance, he was the first European winner of the Distinguished Early Career Award of the Society for Industrial and Organizational Psychology (2006) and the first industrial and organizational psychologist to be laureate of the Royal Flemish Academy of Sciences and Arts (2008).

Gerald Matthews is Professor of Psychology at the University of Cincinnati. He previously held faculty positions at Aston University and the University of Dundee in the United Kingdom. He is currently President of the Traffic and Transportation Psychology division of the International Association for Applied Psychology. He was formerly Secretary-Treasurer of the International Society for the Study of Individual Differences. He is an associate editor for *Personality and Individual Differences*, and a consulting editor for *Journal of Experimental Psychology: Applied*. His research focuses on emotional intelligence, human performance, cognitive models of personality, and the assessment of acute states of stress and fatigue. He has published over 200 journal articles and book chapters. Recent co-authored or co-edited books include: *Emotional intelligence: Science and myth* (2002), *Science of emotional intelligence: Knowns and unknowns (2007), The Cambridge handbook of personality* (2009), *What we know about emotional*

intelligence: How it affects learning, work, relationships and our mental health (2009), *Personality traits, 3rd ed. (*2009), *Handbook of individual differences in cognition: Attention, memory and executive control* (2010). His book awards include the British Psychological Society Annual Book Award (1998) and the Association of American Publishers PROSE Award in Biomedicine and Neuroscience (2009). Matthews received his BA (1980) and PhD (1984) from Cambridge University.

Richard Murnane, an economist, is Thompson Professor of Education and Society at the Harvard Graduate School of Education (HGSE) and a research associate at the National Bureau of Economic Research. In recent years he has pursued two lines of research. With MIT Professors Frank Levy and David Autor, he has examined how computer-based technological change has affected skill demands in the U.S. economy. Murnane and Levy have written two books on this topic. The second line of research examines the consequences of particular initiatives designed to improve the performance of the education sector. For example, along with HGSE colleagues, Murnane has examined the consequences of providing salary bonuses to attract skilled teachers to high need schools and the impact that exit examination requirements have on the probability that economically disadvantaged students graduate from high school. Murnane and his colleague, John Willett, recently completed the book *Methods Matter: Improving Causal Inference in Educational and Social Science Research* (Oxford U. Press, August 2010). Murnane is currently codirector (with Greg Duncan) of a large research project examining the ways that increased earnings inequality in the U.S. affects opportunities for children from low-income families to obtain a good education.

Candice Odgers is Assistant Professor of Psychology & Social Behavior and Education at the University of California, Irvine. Her research focuses on the developmental course of externalizing disorders, with an emphasis on physical-health outcomes. Specific interests include: the role of gender, family history and neighborhood context in the progression of childhood conduct disorder; longitudinal methods for facilitating causal inference; and the health consequences of early teenage substance exposure. Dr. Odgers received her Ph.D. from the University of Virginia.

Louise Yarnall is a Senior Research Social Scientist at the Center for Technology in Learning. She specializes in assessment design, evaluation design, community college education research, and journalism education research. Her assessment design work is grounded in evidence-centered design and employs SRI's Principled Assessments for Design in Inquiry (PADI) assessment design system. This work involves integrating insights from cognitive science into the design of classroom testing. Using these ideas, Dr. Yarnall develops solutions with a range of applications in classroom instruction and educational administration. Her work has been used for professional development of community college technician educators using problem-based learning curricula. She has developed assessments of both technical knowledge and 21st-century skills in courses ranging from bioinformatics to information technology to engineering. A current research agenda focuses on developing approaches to measure the emergence and development of domain-specific reasoning in post-secondary biology and economics. Her evaluation design work examines how teachers adapt to new pedagogies and technologies for instruction. This work has focused on how community college educators use problem-based learning in technical education courses and how K-12 educators have used handheld devices to support science inquiry and collaborative learning. Her journalism education research explores how to use new technology to improve investigative and analytical reporting. This work has involved co-designing instructional materials for a graduate journalism program and conducting an international survey into how journalism professors teach journalistic analytical techniques. Her graduate training focused on qualitative and statistical methodologies of educational psychology; cognitive and socio-cultural theories of learning, children's literacy, representational fluency, and political development; and technology-based curriculum design. Her professional work in journalism has been featured in the *New York Times*, *Los Angeles Times*, and *Columbia Journalism Review*. She serves on the steering committee of Public Press, a non-profit journalism startup covering San Francisco.