

# AERA Offers Roster of Professional Development and Training Courses For 2008 Annual Meeting . . . Starting March 23

The Professional Development and Training Committee has planned a rich program of extended and mini-courses for the 2008 AERA Annual Meeting. The program was crafted based on consideration of approximately 90 submissions and a competitive review process. The extended courses begin on Sunday, March 23, one day before the start of the Annual Meeting. Mini-courses are held Tuesday through Thursday, March 25–27. Please log on to <http://www.aera.net> to register for the 2008 Annual Meeting and for these professional development and training courses.

## Extended Courses

### 1. Accessing and Analyzing National Databases in Secondary and Higher Education

*Director:* Terrell L. Strayhorn, University of Tennessee

*Date:* Sunday, March 23 (9:00 am–6:00 pm)

*Fee:* \$85.00

This course will provide graduate students and emerging and continuing scholars with information and skills to analyze national databases in secondary and postsecondary education provided by the National Center for Education Statistics (NCES). This interactive course will consist of activities, group dialogue, and independent exercises to understand NCES data. Participants will review widely used data sets such as the National Education Longitudinal Study (NELS), the Baccalaureate and Beyond Longitudinal Study (B&B), and the Integrated Postsecondary Education Data System (IPEDS). Technical issues associated with analyzing data from complex design surveys will be discussed. Participants will need to bring a laptop computer for this course.

### 2. An Introductory Primer/Review of Multivariate Statistics

*Director:* Bruce Thompson, Texas A&M University

*Date:* Sunday, March 23 (1:00 pm–5:00 pm); Monday, March 24 (8:00 am–12:00 pm)

*Fee:* \$75.00

Only multivariate analyses (e.g., MANOVA, descriptive discriminate analysis, predictive discriminate analysis, canonical correlation analysis, structural equation modeling) consider how all the variables in an analysis interact simultaneously in all possible configurations and honor a reality “in which the researcher cares about multiple outcomes, in which most outcomes have multiple causes, and in which most causes have multiple effects” (Thompson, 1986, p. 9). This course will cover commonly used multivariate methods and presume as background only that participants have previously heard about Pearson  $r$  and ANOVA. Further information about the presenter is available at <http://www.coe.tamu.edu/~bthompson>

### 3. An Overview of Causal Inference Theories and Methods in Education

*Directors:* Stephen Raudenbush, University of Chicago; Guanglei Hong, University of Toronto

*Date:* Sunday, March 23 (9:00 am–5:00 pm)

*Fee:* \$75.00

This course will equip participants with preliminary knowledge and skills necessary for appraising and conducting causal comparative studies in education. The course begins by introducing Rubin’s causal model and discussing its extensions to causal problems in education. Instructors will provide an overview of various causal inference techniques that are comparatively new to most social scientists. A major emphasis will be placed on conceptualizing causal questions, comparing alternative research designs, and identifying the assumptions under which a causal effect can be estimated from nonexperimental data.

In addition to studying multilevel experimental designs, participants will become familiar with causal inference techniques suitable for evaluating binary treatments, concurrent multilevel treatments, or time-varying treatments in nonexperimental multilevel and longitudinal educational data. These include propensity score matching and stratification, inverse-probability-of-treatment weighting (IPTW), marginal mean weighting, regression discontinuity design, the instrumental variable (IV) method, fixed-effects models, and random-effects models.

### 4. Assessment Design—How to Make Inferences About Learning: Hands-on Experience With the PADI Design System

*Director:* Cathleen A. Kennedy, University of California, Berkeley

*Instructors:* Angela Haydel DeBarger, SRI International; Lawrence Gallagher, SRI International; Robert J. Mislevy, University of Maryland, College Park; Mark Wilson, University of California, Berkeley; Futoshi Yumoto, University of Maryland, College Park; Ting Zhang, University of Maryland, College Park

*Date:* Sunday, March 23 (9:00 am–6:00 pm)

*Fee:* \$75.00

This course presents a framework and tools to design an assessment system in which meaningful inferences about student progress and status can be drawn. The framework is particularly useful when assessment data involve multiple interrelated measures and/or sequential responses. The course will help participants understand the inferential structures that underlie all assessments, how to evaluate such structures, and how to design structures that make sense of student responses consistent with a particular assessment purpose. Small groups will work on aspects of assessment design that are of most importance to them, e.g., designing an assessment purpose, designing items, or interpreting assessment results. Participants who

bring a laptop with WiFi capability will be able to use the PADI software; others can design using PADI design documents.

### **5. Evaluating Quality in Doing and Writing Action Research in Schools, Neighborhoods, and Communities**

*Directors:* Jean McNiff, St. Mary's University College, UK; Jack Whitehead, University of Bath, UK

*Date:* Sunday, March 23 (9:00 am–5:00 pm)

*Fee:* \$75.00

This interactive course enables beginning and experienced action researchers to explore issues of validity in designing, doing, and writing action research, through assessing quality in practice, research, and reports. Using values-based standards for judging the validity of research claims and their communication through written and multimedia reports, the course becomes an action enquiry as participants ask, "How do I/we improve My practice?" and show the dynamic relationships between their values and practices. With the option of video to communicate their experience of the course, they will test the validity of their claims to quality in practice-based research and explain the transformational potentials of their living theories of educational influence in learning for sustainable well-being, while integrating advanced contemporary social theories.

### **6. Introduction to the Schools and Staffing Survey (SASS) and Teacher Follow-up Survey (TFS) Databases**

*Directors:* Deanna Lyter, American Institutes for Research (AIR); Beth Morton, AIR; Pia Peltola, AIR

*Date:* Sunday, March 23 (9:00 am–5:00 pm)

*Fee:* \$85.00

This lecture-style course is intended as an introduction to the Schools and Staffing Survey (SASS) and the Teacher Follow-up Survey (TFS) from the NCES. The course will provide information on the survey design and technical issues related to SASS and TFS. Participants will be provided a demonstration of the computer software that allows users to plan and extract data files for analysis. The course is intended for those graduate students, faculty, and institutional researchers who have a background in statistics and who are interested in using these data in analyses of elementary and secondary education.

### **7. Learning Mathematics for Teaching: Instrument Dissemination Workshop**

*Directors:* Geoffrey Phelps, University of Michigan; Heather Hill, Harvard University

*Date:* Sunday, March 23 (9:00 am–5:00 pm)

*Fee:* \$100.00

The Learning Mathematics for Teaching (LMT) project develops and disseminates multiple-choice survey measures of mathematical knowledge for teaching in the content areas of number concepts and operations, patterns functions and algebra, and geometry. These measures are suitable for use with elementary and middle school teachers. Course participants are encouraged to review the information and terms of use on the LMT website before enrolling <http://sitemaker.umich.edu/lmt>. This course will provide background information on the development and theory supporting the LMT measures and practical guidance on

appropriate use of these measures in research and program evaluation. While this course is designed for all researchers investigating teacher knowledge, a basic understanding of statistics is helpful. Participants will receive a training manual.

### **8. Methodological Issues in Quantitative Research on Race and Ethnicity**

*Directors:* Phillip Bowman, University of Michigan; Angela Ebreo, University of Michigan; John Garcia, University of Michigan; Tyrone Forman, University of Michigan; Maria Krysan, University of Michigan; Edward St. John, University of Michigan; William T. Trent, University of Illinois, Urbana-Champaign

*Date:* Sunday, March 23 (9:00 am–6:00 pm)

*Fee:* \$110.00

This course examines methodological issues in secondary analysis of quantitative data sources for innovative research on social and educational disparities. Particular attention will be placed on data access, design, measurement, and analysis issues in quantitative research on racial/ethnic "gaps" in educational outcomes in the United States (including the need to juxtapose analysis of social and educational disparities). Individuals with a substantive interest in policy-relevant educational research on race, ethnicity, class, and related diversity challenges will be introduced to a variety of methodological issues to help refine their analytic orientations and skills. In addition to presentations by experts, "specific examples" and "breakout discussions" about personal research agendas will be an integral component of the learning experience.

### **9. Mixed Data Analysis Techniques: A Comprehensive Step-by-Step Approach**

*Directors:* Anthony J. Onwuegbuzie, Sam Houston State University; Kathleen M. T. Collins, University of Arkansas, Fayetteville; Nancy L. Leech, University of Colorado, Denver; John R. Slate, University of Tennessee, Knoxville

*Date:* Sunday, March 23 (9:00 am–6:00 pm); Monday, March 24 (9:00 am–6:00 pm)

*Fee:* \$125.00

The purpose of this two-day course is to provide a step-by-step guide for selecting and applying quantitative, qualitative, and mixed data-analytic techniques. This interactive course, for new and seasoned researchers, will provide frameworks and heuristics for selecting and applying data-analytic techniques and validating, interpreting, and reporting results of mixed research studies. Presenters also will provide published examples and illustrate applications of statistical (e.g., SPSS, SAS) and qualitative (e.g., NVIVO) software. Finally, the presenters will provide an array of publishing tips and approaches for applying Standards and Guidelines when reporting results and writing the mixed-research article. A course manual will be provided.

### **10. Moving From Art to Science: Item Writing Course to Assess Teachers' Mathematics and Pedagogical Knowledge**

*Directors:* Michael C. Rodriguez, University of Minnesota; Teresa Tatto, Michigan State University

*Date:* Sunday, March 23 (9:00 am–5:30 pm)

*Fee:* \$100.00

This course will introduce/review assessment item-writing guidelines (multiple-choice and constructed-response), a research basis for item writing, and principles of universal design, through lecture format with small- and whole-group work. Participants will review and suggest revisions to a variety of mathematics and pedagogy items collected for inclusion in Teacher Education Study in Mathematics (TEDS-M; an ongoing cross-national study of the impact of teacher preparation). Participants will be expected to generate and critique their own items during the session. Challenges and quality criteria in developing and selecting items to measure teachers' knowledge of mathematics, mathematics pedagogy, and knowledge for teaching in context will be addressed.

### **11. Understanding Fair Use: Copyright Issues for Educational Use of Multimedia**

*Directors:* Renee Hobbs, Temple University; Pat Aufderheide, Temple University; Peter Jaszi, Temple University  
*Date:* Sunday, March 23 (9:00 am–5:00 pm)  
*Fee:* \$75.00

Most educators use copyrighted materials in their work with students, but many have questions about copyright. With easier access to visual, video, and digital materials available online, there are renewed questions about the extent to which the concept of “fair use” protects educational use of multimedia. This course is designed to deepen teacher educators' understanding of the concept of fair use and how it applies to educators who use video, mass media, popular culture and digital media to develop media literacy skills (i.e., critical thinking and communication skills). Participants will learn new approaches to introduce the concepts of copyright and fair use in ways that inspire and motivate teachers to use video, mass media, and popular culture materials creatively to strengthen student learning.

### **12. Using and Analyzing Video Data in Ethnographic and Cross-Disciplinary Studies of Learning Settings From Multiple Perspectives**

*Directors:* David Bloome, Ohio State University; Ricki Goldman, New York University; Susan Goldman, University of Illinois, Chicago; Judith Green, University of California, Santa Barbara  
*Instructors:* Minjeong Kim, Ohio State University; Chaoyan Dong, New York University; Helen U Kwah, New York University; Audra Skukauskaite, University of Texas, Brownsville; W. Douglas Baker, Eastern Michigan University  
*Date:* Sunday, March 23 (9:00 am–6:00 pm)  
*Fee:* \$130.00

This course explores the use of video data in studies of formal and informal learning settings over time (e.g., across lessons, days, weeks, and months). In this course, participants will explore three perspectives on the use of video data that focus on the logic-of-inquiry (i.e., theory method connections); interactional ethnography, digital video design ethnography, and a cross-disciplinary perspective involving cognitive science and microethnographic discourse analysis; key constructs; analytic systems; and representations of knowledge and learning over time.

## **Mini-Courses**

### **13. A “Gentle” Introduction to Statistical Analysis and Teaching with R**

*Director:* Brandon K. Vaughn, University of Texas, Austin  
*Date:* Wednesday, March 26 (8:00 am–12:00 pm)  
*Fee:* \$45.00

The purpose of this course is to introduce the basic principles of using and teaching the free statistical software package R. In this course, participants learn how to input data and perform basic statistical analysis in R. The course also includes discussion of strategies to use in incorporating R into classroom settings. Participants will be given access to free tutorial videos developed by the instructor for use in their own learning of R as well as in classroom settings. A basic understanding of statistics and regression is needed in order to gain insights from this course. Participants are encouraged to bring laptops with R installed. Instructions and data files will be made available online prior to the course.

### **14. Advanced Hands-on Exploration of NAEP Data on the Web**

*Directors:* Debra Kline, Center for Data Analysis and Technology Research at Educational Testing Service (ETS); Catherine Trapani, Center for Data Analysis Research at ETS  
*Date:* Thursday, March 27 (8:00 am–12:00 pm)  
*Fee:* \$85.00

This course is for researchers interested in the National Assessment of Educational Progress (NAEP) data. The NAEP Data Explorer is a powerful Web tool that provides customized tables of NAEP results gathered since 1990. It provides an intuitive approach to selecting data that requires minimal knowledge about NAEP. Training of similar scope has been presented at previous conferences—this course will focus on the newest NAEP results from the 2007 assessment of math, reading, and writing. Participants will be guided through a full examination of the data, with an emphasis on the plethora of data that link student performance with teacher and school characteristics. The course is structured around hands-on learning and active participation and will include a short demo of the system's features, including regression capability. NOTE: Full participation requires a laptop with a wireless card for Internet access.

### **15. An Introduction to GIS for Education Researchers**

*Directors:* Mark Hoglebe, Washington University in St. Louis; Courtney A. Bell, ETS/University of Connecticut; Charisse Gulosino, Brown University  
*Date:* Thursday, March 27 (1:00 pm–5:00 pm)  
*Fee:* \$45.00

This course introduces the use of spatial context as a dimension in education research through geographical information systems (GIS). Many disciplines in which geography and location are critical variables rely extensively on GIS to present data visually in maps, analyze spatial relationships, solve problems, and answer research questions. Education has a spatial context in that schools are situated in neighborhoods, districts, and different areas of a metropolitan region. Location is a factor that affects schools,

teachers, and students. This introductory course describes what GIS encompasses and how it can be applied in education. It provides an overview of basic GIS concepts, a demonstration of software, a discussion of resources, and examples showing how GIS can be used in education.

### **16. An Introduction to Latent Class Models, Mixture Rasch Models, and Diagnostic Mixture Models**

*Director:* Matthias von Davier, Educational Testing Service  
*Date:* Tuesday, March 25 (8:00 am–12:00 pm)  
*Fee:* \$45.00

The course provides a hands-on introduction to a variety of models for analyzing test and questionnaire data. It includes the Rasch model, the Latent Class Analysis, mixture Item Response Theory (IRT) models, and Mixtures of Diagnostic models, that is, mixture of multidimensional Latent Trait models. Differences between the models will be explained and related to the appropriate choice of a model for different types of research hypotheses. An extensive overview will be followed by practical examples that are analyzed in real time using publicly available software provided free to session participants and educational example data. The intended audience is researchers and graduate students who want learn to use these models. Participants are encouraged to bring laptop computers and additional data sets.

### **17. Analysis of Missing Data**

*Directors:* Craig K. Enders, Arizona State University  
*Date:* Tuesday, March 25 (1:00 pm–5:00 pm)  
*Fee:* \$45.00

There have been substantial methodological advances in the area of missing data analyses during the last 25 years. Two missing data techniques, maximum likelihood (ML) and multiple imputations (MI), are currently considered “state of the art” in the methodological literature. The purpose of this course is to familiarize participants with ML and MI and to demonstrate the use of these techniques using widely available software packages. The course will emphasize the application of ML and MI, with the goal that participants leave the course with the background knowledge and skills to appropriately apply these techniques in their own research.

### **18. Effect Sizes, Confidence Intervals, and Especially Confidence Intervals for Effect Sizes**

*Director:* Bruce Thompson, Texas A&M University  
*Date:* Tuesday, March 25 (8:00 am–12:00 pm)  
*Fee:* \$40.00

This course is directed to expanding knowledge about effect sizes and their use. The 2001 APA Publication Manual states (and 24 journals formally agree) that effect size reporting is “almost always necessary” and that confidence intervals are “the best” reporting mechanism. And the marriage of these techniques seems natural. The new 2006 AERA “Standards for Reporting on Empirical Social Science Research in AERA Publications” also emphasize effect sizes and confidence intervals. New software for SPSS and EXCEL overcomes the computational challenges in computing confidence intervals about effect sizes: <http://www.coe.tamu.edu/~bthompson>.

### **19. Foregrounding Issues of Equity and Diversity in Mathematics Education Research: Implications for Research Methods and Teacher Development**

*Directors:* Megan Franke, University of California, Los Angeles; Alan Schoenfeld, University of California, Berkeley  
*Instructors:* Dan Battey, Arizona State University; Angela Chan, University of California, Los Angeles; Noel Enyedy, University of California, Los Angeles; Fred Erickson, University of California, Los Angeles; Indigo Esmonde, University of Toronto; Mary Foote, Queens College; Mara Landers, University of California, Berkeley; Courtney Koestler, University of Wisconsin, Madison; Victoria M. Hand, University of Colorado, Boulder; Kristine Ho, University of California, Los Angeles; Shiuli Mukhopadhyay, California State University, Northridge; Vanessa Pitts Bannister, Virginia Polytechnic Institute; Joi Spencer, University of San Diego; Edd Taylor, Northwestern University; Anita Wager, University of Wisconsin, Madison  
*Date:* Tuesday, March 25 (8:00 am–12:00 pm)  
*Fee:* \$40.00

This course brings issues of equity and diversity to the forefront of mathematics education research. Scholars participating in the Diversity in Mathematics Education (DiME) Center for Learning and Teaching have been conceptualizing the interplay of equity, diversity, and mathematics education and integrating this focus into their programs of research. This course will extend this conversation to the AERA community, both to share what we have learned as a center and to dialogue with participating scholars around these issues.

### **20. Fostering Civic Responsibility Through Service-Learning: Sharing Our Models, Research, and Resources**

*Directors:* Kathleen A. Flannery, Saint Anselm College; Daniel Forbes, Saint Anselm College; Maria McKenna, Saint Anselm College; Carol Traynor, Saint Anselm College  
*Date:* Tuesday, March 25 (1:00 pm–5:00 pm)  
*Fee:* \$40.00

This course is designed for beginning and advanced educators to examine service learning within the context of their schools, neighborhoods, and communities. Service-learning is an experiential teaching method which facilitates learning, creates community partnerships, and fosters civic responsibility. Topics will include (a) history of service-learning, (b) building community partnerships, (c) innovative service-learning models, and (d) combining service learning with scholarly research. The course will provide opportunities for exploring service-learning models in small groups, creating mentoring relationships, and encouraging interdisciplinary collaborations. Participants will receive materials including a faculty resource manual and an annotated bibliography of service-learning research.

### **21. Getting Published: A Panel of Journal Editors and Emerging Scholars**

*Directors:* Patricia Elmore, Southern Illinois University; Patricia A. Alexander, University of Maryland, College Park  
*Date:* Thursday, March 27 (8:00 am–12:00 pm)  
*Fee:* \$40.00

In this course journal editors will review the often implicit “rules” for writing an article, targeting a journal, submitting a manuscript, understanding the review process, deciphering the editor’s letter, revising and resubmitting the manuscript, and regrouping after rejection. Productive emerging scholars will share their experiences and strategies in building a research program and disseminating their research findings in prestigious refereed journals. Files of actual correspondence between authors and editors will be available for perusal. Question-and-answer sessions will be provided by the panels of editors and emerging scholars.

## 22. Implementing Professional Development Schools

*Directors:* Gwendolyn T. Benson, Georgia State University; William L. Curlette, Georgia State University; Dee Taylor, Georgia State University

*Instructors:* Jane E. Neapolitan, Towson University; Jaci Webb-Dempsey, West Virginia University; Susan L. Ogletree, Georgia State University; Colin Martin, Gwinnett County School System; Carolyn T. Hall, Atlanta Public School System.

*Date:* Thursday, March 27 (1:00 pm–5:00 pm)

*Fee:* \$40.00

Achieving the promises of Professional Development Schools (PDS) is a complex process involving students, parents, teachers, administrators, and community members. This course will address the implementation of PDS from the start-up phase through various developmental phases. Different perspectives related to PDS implementation will be presented: (1) the start-up and development of PDS, including high-need urban areas; (2) description of two approaches to document the impact of PDS (work to document site-based renewal activities in a network of PDS and the development of PDS across a statewide network of 10 school-university partnerships); and (3) on-site PDS reviews and alignment to NCATE PDS Standards.

## 23. Longitudinal Surveys at the National Center for Education Statistics: Educational Longitudinal Studies of 1988 and 2002

*Directors:* Emmanuel Sikali, National Center for Education Statistics (NCES); Jeffrey Owings, NCES; John Wirt, NCES

*Date:* Wednesday, March 26 (8:00 am–12:00 pm)

*Fee:* \$40.00

This course provides researchers with tools for utilizing data from two programs at the Institute of Education Sciences’ National Center for Education Statistics (NCES): the National Education Longitudinal Study of 1988 (NELS:88) and the Education Longitudinal Study of 2002 (ELS:2002). The course provides overviews of the study designs and technical issues, highlights data pertaining to transition from high school to adulthood, and explains how the surveys are related. Computer demonstrations of software will assist users in preparing data for analyses. The course is for advanced graduate students, faculty, and researchers who have a solid understanding of statistics.

## 24. Multilevel and Hierarchical Linear Modeling

*Directors:* J. Kyle Roberts, Southern Methodist University; Natasha Beretvas, University of Texas, Austin

*Date:* Thursday, March 27 (8:00 am–12:00 pm)

*Fee:* \$40.00

The purpose of this course is to introduce the basic principles of multilevel and hierarchical linear modeling (HLM) by illustrating the basic two-level model as well as the multilevel repeated measures model. In this course, participants will learn how to fit the base/null/unconditional model (multilevel ANOVA), as well as a fixed- and random-effects model. Participants should have a basic understanding of statistics and regression. Emphasis will be on participants’ mastering the types of (two-level) research questions that can be assessed using HLM.

## 25. Poetic Devices for the Qualitative Researcher: Found Data Poems, Photographs, and Interactive Text to Understand New Ways of Representing Interview Data

*Directors:* Valerie J. Janesick, University of South Florida; Carolyn N. Stevenson, Kaplan University

*Date:* Tuesday, March 25 (1:00 pm–5:00 pm)

*Fee:* \$40.00

The purpose of this course is to describe and explain how qualitative data, particularly interview data, may be represented through found data poems. Data poems can be created from the transcripts from a study and photography may be used to present interview data artistically. Creating and crafting a narrative with interactivity between researcher and written transcripts will be addressed. Any level of qualitative researcher may find this session useful. Participants will have hands-on activities, which will include creating poems (found data poems) from sample interview transcripts, developing narrative descriptions from photographs, and writing tasks related to the poetry and the transcripts. Participants will need a digital camera and laptop computer for the course. Members will practice using digital cameras to depict various people, places, or things in the immediate context of the course. The use of artistic approaches to data representation, interpretation, and analysis will be stressed.

## 26. Professional Development Workshop for Online Evaluation Resource Library (OERL)

*Directors:* Geneva Haertel, SRI International; Daniel Zalles, SRI International; Robert Murphy, SRI International

*Date:* Wednesday, March 26 (8:00 am–12:00 pm)

*Fee:* \$40.00

The Online Evaluation Resource Library (OERL) provides project leaders and evaluators of math, science, and technology education research projects with a collection of evaluation resources that they can use to plan, implement, and document an evaluation. Materials in OERL have been implemented in NSF-funded projects and are aligned with the Program Evaluation Standards (2nd ed.) prepared by the Joint Committee on Standards for Educational Evaluation (1994). The course will introduce project leaders and evaluators to OERL and its resources. Participants will have hands-on experience finding resources and in-depth learning experiences using the website’s Professional Development Modules.

## 27. Qualitative Research for Quantitative Researchers

*Director:* L. Earle Reybold, George Mason University

*Date:* Thursday, March 27 (1:00 pm–5:00 pm)

*Fee:* \$40.00

The course is intended for researchers trained primarily in quantitative approaches to research who want to better understand

qualitative research. It will present the most important differences between qualitative and quantitative research, the strengths and limitations of qualitative research, how to integrate qualitative and quantitative methods, and how to work productively with qualitative researchers. The course format will be interactive.

### 28. Scoring Performance Assessments

*Directors:* Robert L. Johnson, University of South Carolina; James Penny, CASTLE Worldwide; Ching Ching Yap, University of South Carolina

*Date:* Tuesday, March 25 (8:00 am–12:00 pm)

*Fee:* \$40.00

Performance assessments are used to make decisions regarding the qualification of students for college admission, of teachers to receive advanced certification, and of law candidates to open a practice. This course reviews methods of improving the score quality of such performance assessments. Methods addressed include developing scoring guides, training raters, and monitoring score quality during operational scoring. Methods for estimating inter-rater reliability and score validity are reviewed. Examples are drawn from the authors' experiences in educational and licensure testing.

### 29. Self-Study as a Genre of Teacher Education Research: Theory, Method and Practice

*Directors:* Mary Lynn Hamilton, University of Kansas; Stefinee Pinnegar, Brigham Young University

*Date:* Thursday, March 27 (1:00 pm–5:00 pm)

*Fee:* \$40.00

This course supports those researchers interested in understanding what self-study of professional practice entails, the theoretical underpinnings that guide this work, and how to proceed in conducting self-studies. At the end of this course, participants will be prepared to move forward in systematically developing a self-study research study or program. Participants will develop questions to guide a study, strategies for taking next steps, and tools for designing and conducting self-studies, as well as the tools for data analysis and reporting the results that emerge from self-study of professional practice.

### 30. Simulation and Advanced Gaming Environments (SAGE) for Learning

*Directors:* David Kaufman, Simon Fraser University; Louise Sauve, Tele Universite du Quebec

*Date:* Thursday, March 27 (8:00 am–12:00 pm)

*Fee:* \$40.00

This course explores the potential of simulations and games to support learning in light of new technologies, new media, and our knowledge of cognition and learning processes. We will investigate questions in three broad areas: understanding learning with SAGEs, integrating theory and practice, and methodologies and tools for SAGE research and evaluation. This interactive course is suitable for participants at all academic levels who are interested in exploring the use of these methodologies in their instructional activities.

### 31. The Qualitative Analysis of Video: Using Video and Audio as a Data Source

*Directors:* David Woods, Wisconsin Center for Education Research; Kay P. Uchiyama, Poudre School District in Fort Collins

*Date:* Wednesday, March 26 (8:00 am–12:00 pm)

*Fee:* \$40.00

This course is designed for anyone interested in learning how to analyze video and audio data as part of a qualitative study. We will discuss issues related to collecting video data, such as human subject releases, IRB approval, and recording considerations. We will cover techniques for moving from raw video to theory, including transcription-based analysis, categorizing analytic clips, and coding video segments. Techniques for analyzing coded video will include data mining, hypothesis testing, pattern analysis, and longitudinal qualitative analysis. Some familiarity with qualitative analytic methodology and with computer-assisted qualitative data analysis software is helpful but is not required.

### 32. Using Excel as a Qualitative Data Analysis Tool

*Directors:* Daniel Meyer, Illinois Institute of Technology; Leanne Avery, State University of New York, College at Oneonta

*Date:* Tuesday, March 25 (8:00 am–12:00 pm)

*Fee:* \$40.00

Microsoft Excel is usually considered a number cruncher and therefore associated with quantitative data analysis. However, there is great utility in its use for qualitative data analysis. In this course, the instructors will demonstrate how Excel can be used for qualitative analysis; introduce and teach participants key functions, particularly focusing on less commonly used features; and aid participants in utilizing Excel with their own research data. Participants should bring laptops with Microsoft Excel software.

### 33. Using International Large-Scale Assessment Data

*Directors:* Leslie Rutkowski, International Association for the Evaluation of Educational Achievement (IEA-DPC); Eugene Gonzalez, IEA-ETS Research Institute; Oliver Neuschmidt, IEA-DPC; David Rutkowski, IEA-DPC

*Date:* Tuesday, March 25 (1:00 pm–5:00 pm)

*Fee:* \$40.00

This course will provide a comparative overview of the purposes and methods of the three largest international educational assessment programs that are currently taking place: Trends in International Mathematics and Science Study (TIMSS), Progress in International Literacy Scales (PIRLS) and Program for International Student Assessment (PISA). These programs collect achievement data in mathematics, science, and reading at the primary and middle school level. A summary of the methodological challenges that are faced by these programs will be presented and discussed. The course will help participants understand the value provided by these studies and the operational, statistical, and psychometric complexities of the studies. It will introduce numerous possibilities of data analysis presented by these data. Software has been developed to analyze these data and is available as part of the presentation.