# **NERA 2017**

# Using Technology to Advance Education Challenges and Opportunities

48th Annual Meeting of the Northeastern Educational Research Association Trumbull, CT
October 18 – 20, 2017





### Welcome from the 2017 NERA President



It is my pleasure to welcome everyone to the 48<sup>th</sup> annual conference of the Northeastern Educational Research Association (NERA)! The theme of the 2017 NERA conference, *Using Technology to Advance Education: Challenges and Opportunities*, is particularly relevant given that the role of technology is continuing to grow in education, and if implemented appropriately, has the potential to enhance the education of all students.

The 2017 Conference Co-Chairs, Daniel Jurich, Jason Kopp, and Whitney Smiley, have worked diligently to put together an excellent conference program. They received a very large number of diverse and high quality proposals so I am confident the paper and poster sessions will be informative and enlightening. In addition, there will be five workshops that will address a diverse set of topics ranging from teacher preparation instructional techniques to educational research methods. Also, in light of this year's conference theme, we will have a new session dedicated to demonstrating the use of technology in supporting research and education. This year we will have two organizations present their technology products: *iReady* and *Stata*. Both demonstrations are sure to appeal to many members of the NERA audience. **Virginia Edwards**, who served as Editor of *Education Week* for many years, will provide a keynote address.

One of the co-chairs' missions was to encourage the engagement of all our conference attendees and their efforts are evident in the program. For example, in lieu of a second keynote speaker, the co-chairs constructed a keynote panel, comprised of **Casey Cobb**, **Preston Green**, and **Kathryn McDermott**, to address important issues pertaining to school choice. The keynote panel format was selected to encourage the exchange of ideas and audience participation with the goal of better understanding the issues surrounding school choice. The conference will also include an interview with **Kurt Geisinger** in which the conversation will partly be driven by questions raised from the audience via social media. Lastly, a panel discussion with the NERA past-presidents will be held at Friday's lunch.

I would like to express my deepest gratitude to the many volunteers who make NERA the engaging and successful organization it is today. Thank you for the dedication of those serving on the Executive Committee, Board of Directors, chairs and members of the committees, session chairs and discussants, and the many other volunteers. I would also like to extend my deepest appreciation to our generous Institutional Members. Finally, I am most appreciative of the hard work of Dan, Jason, and Whitney in putting together this year's conference.

Welcome to all and enjoy the conference!

Craig S. Wells NERA President, 2016-2017

### Welcome from the 2017 Conference Committee

Welcome and thank you to the new and returning NERA members joining us for the 48<sup>th</sup> annual NERA conference. We look forward to celebrating your current research and fostering an environment that inspires future projects. We have coordinated a variety of opportunities that we believe will offer an enriching conference experience, ranging from peer-reviewed workshops, to thought-provoking presentations, and entertaining late-night socials. Many of these events will focus on our conference theme: "Using Technology to Advance Education: Challenges and Opportunities".

As with nearly all aspects of modern society, technology is now a pervasive force in education. The internet has widely altered the accessibility and dissemination of knowledge. In the classroom, tablets are replacing textbooks; smartboards have challenged the traditional whiteboard; and social media has been utilized to expand communication beyond classroom walls. In assessment, computer and web-based testing have largely supplanted paper and pencil exams. The wide-ranging impact of technology has provided educational researchers and professionals a plethora of new opportunities and challenges.

This year's conference aims to provide a venue for sharing and discussing both the state-of-theart research on the use of technology in education and the technologies themselves. In addition to highlighting this innovative research, we want to encourage critical thinking on the challenges and unintended consequences introduced by technology.

One cannot ignore the major political shifts that have occurred, not only in this country, but globally over the past year. Thus, the conference also intends to explore how these changes may affect educational policy and assessment, both in the short and long term. Through the diverse array of high quality sessions, workshops, and keynotes, we believe this year's conference will achieve these goals and more. As always, we will host various socials and late-night activities in order to maintain the energetic social atmosphere so unique to NERA.

In closing, this conference would not have been possible without the dedicated effort of numerous individuals. We received an extraordinarily high volume of proposals that enabled us to construct a diverse program, and we thank all those who submitted. We appreciate everyone who took time away from their busy schedules to assist the NERA process, including volunteer reviewers, chairs, discussants, workshop leaders, and invited panelists. We are particularly grateful to current NERA president, Craig Wells, for allowing us the opportunity to chair this wonderful conference, as well as past president Charlie DePascale, NERA Treasurer Steven Holtzman, and the 2016 conference co-chairs: Joshua Marland, Molly Faulkner-Bond, and Scott Monroe. Each of these individuals provided invaluable guidance throughout the planning and

development of this conference. Finally, we must thank all those attending the conference who make it an enlightening and enjoyable experience.

With that all said, welcome to NERA 2017. Enjoy the conference! Sincerely, Dan, Jason, & Whitney

### **NERA's Mission**

The mission of the Northeastern Educational Research Association is to encourage and promote educational research by:

Sponsoring an annual conference at which formal presentations, feedback, and professional interchange about research occurs.

Promoting the sharing of professional information through publications and other types of communications.

Encouraging the development of research among junior researchers.

NERA welcomes individuals conducting research in all aspects of education including learning, curriculum and instruction, educational policy and administration, measurement, statistics, and research methodology, counseling, human development, social context of education, cultural diversity, special education and rehabilitation, educational assessment, school evaluation, and program development, education in the professions, postsecondary education, teaching and teacher education, technology in education, creative arts in the schools, and others.

### **Statement on Diversity**

As an elaboration of its general research mission, NERA commits itself to promoting diversity and inclusiveness and to promote activities that foster a diverse community of researchers.

NERA values human and intellectual diversity and is committed to providing a multiplicity of views and perspectives from innumerable types of educational institutions and occupations to enhance research, teaching, and the development of new knowledge. NERA believes that when a variety of backgrounds, experiences, and viewpoints converge, the result is an advanced understanding of research and education.

In addition to expanding the current base of knowledge through new research, NERA seeks individuals that challenge the very ways in which we have traditionally come to understand that knowledge. This challenge may come explicitly through the presentation of new theoretical and methodological explorations, but it may also come organically through mutual engagement of members from different backgrounds, experiences, and occupations who hold different beliefs and perspectives. NERA believes the diversity of its membership leads to the advancement of learning and academic excellence. As such, NERA is committed to the recruitment and retention of members from different educational experiences and backgrounds to achieve this goal.





Copyright © 2017 by Educational Testing Service. All rights reserved. ETS, the ETS logo and MEASURING THE POWER OF LEARNING are registered trademarks of Educational Testing Service (ETS). 38129

### **NERA 2017 Sponsors**

We extend our sincere appreciation and gratitude to our generous organizational and institutional sponsors. Without their support, the 48<sup>th</sup> Annual NERA Conference would not be possible. Information about our sponsors can be found throughout the program.

#### **Platinum Sponsors**

The American Board of Surgery

www.absurgery.org

**College Board** 

www.collegeboard.org

edCount, LLC

www.edcount.com

**Educational Testing Service** 

ww.ets.org

i-Ready

www.curriculumassociates.com

**James Madison University** 

www.jmu.edu/assessment

Johnson & Wales University

https://www.jwu.edu/

**Measured Progress** 

www.measuredprogress.org

National Center for the Improvement of Educational Assessment

www.nciea.org

**Pearson** 

www.pearson.com

Stata

ww.stata.com

University of Massachusetts Amherst,

**College of Education** 

www.umass.edu/education

### **Silver Sponsors**

**ACS Ventures** 

www.acsventures.com

**AICPA** 

www.aicpa.org

**Bloomsburg University of Pennsylvania** 

www.bloomu.edu

**Buros Center for Testing at University of** 

Nebraska-Lincoln

www.unl.edu/buros

**Goodwin College** 

www.goodwin.edu

MAXQDA

www.maxqda.com

**Montclair University** 

www.montclair.edu/cehs

**National Board of Medical Examiners** 

www.nbme.org

**Southern Connecticut State University** 

www.southernct.edu/academics/schools/

education

### Thank you to our Silver Sponsors!



















### NERA Awards

#### THE THOMAS F. DONLON MEMORIAL AWARD FOR DISTINGUISHED MENTORING

The Thomas F. Donlon Award for Distinguished Mentoring was established in 2000 in recognition of Tom's long and valued contributions to NERA, particularly as a mentor to so many colleagues. Since then the award has been presented annually to other NERA members who have demonstrated distinction as mentors of colleagues by guiding them and helping them find productive paths toward developing their careers as educational researchers.

The practice of mentoring in education has been going on for centuries and most of us can name a person who helped us move our careers along by being more than just a friend or colleague. That person may have been an advisor in developing your research agenda or perhaps brought you to NERA for the first time after suggesting that you might be ready for a conference presentation.

### THE LEO D. DOHERTY MEMORIAL AWARD FOR OUTSTANDING LEADERSHIP AND SERVICE TO NERA

The Leo D. Doherty Memorial Award is given to a longstanding NERA member who exemplifies the qualities that Leo Doherty brought to NERA members, his colleagues, and students over his career. The award, instituted by the NERA Board of Directors in 1981, honors the memory of Leo Doherty. He was instrumental in the development and growth of NERA as a professional association for educational research. His leadership qualities, which were both ethical and humane, encouraged others to pursue and achieve their goals. Thus, this award is presented to NERA members who have exhibited outstanding leadership and service to our organization.

#### THE LORNE H. WOOLLATT DISTINGUISHED PAPER AWARD

Educators are encouraged to submit a 15-20 page original research paper on any educational issue of interest for the Lorne H. Woollatt Distinguished Paper Award. The paper must be accepted for and presented at the NERA 2016 conference. There may be single or multiple authors. The submission will be peer reviewed and rated on a thirty-point rubric. The winner(s) will be notified by both email and post in the beginning of January. The author of the winning distinguished paper will receive a stipend of \$500 and present at the American Educational Research Association conference in 2017.

The Lorne H. Woollatt Award was renamed in 1990 to honor this New York educator who published, The evolution of state-local governmental relationships in New York State (Staff study of the fiscal policy for public education in New York State) in 1948. Woollatt was an active member of NERA.

#### TEACHER-AS-RESEARCHER AWARD

The TAR Award recipient is a teacher (P-12; i.e., preschool through high school) who has conducted classroom research to modify and improve his or her teaching efforts and instructional effectiveness. The purpose of the award is to encourage teachers to conduct research and to use the findings of that research to inform their own teaching.



# **Building the Future** of Assessment

At Pearson, we're parents, former teachers, and lifelong learners. We're passionate about the products we make and the services we provide. We are investing in new assessment technologies and methods, guided by a long history as educational measurement experts.

By working alongside our customers, we enable students to flourish; teachers to inspire; and parents, schools, and organizations to have confidence that students are making meaningful progress.

pearson.com/better-tests

© Pearson, 2017. All rights reserved.



### **NERA Proposal Reviewers**

NERA uses a process of blind peer review in order to evaluate each conference submission. Without our volunteer reviewers, *this conference simply would not be possible*. We sincerely thank each of them, listed below, for their contributions.

Heba Abdo Sousan Arafeh Ella Banda

Deborah Bandalos

Yu Bao Jason Barr

Bozhidar Bashkov Genia Bettencourt Tanesia Beverly Felice Billups Michelle Boyer Laine Bradshaw Latanya Brandon Jennifer Broderick

Deborah Carroll Briana Chang Vickie Claflin Alison Clark

Elizabeth Brown

Linda Clark Amanda Clauser Michelle Collay

Kimberly Colvin Nathan Dadey

Francine Del Vecchio

Marcia Delcourt Nina Deng

Charles DePascale

Sheryl Dion Matthew Duvall Natalie Duvall Kurt Eisele Monica Erbacher Carla Evans

Sarah Ferguson

Yuyu Fan

Kelly Foelber Beth Fornauf Yanyan Fu

Heather Harris Joanne Hayes Barbara J. Helms Steven Holtzman Jeanne Horst

Elizabeth Gittman

John Houtz Xiaoli Jiang Mary Johnston Andrew Jones HyunJoo Jung Pamela Kaliski Lisa Keller Shane Kerr

Stacey Kite Emru Kiydal Jason Kopp

Christopher Kurzum Margareth Lafontant Salika Lawrence

Jade Lee

**Edward Lehner** 

Eva Li Xing Liu

Tanya Longabach Catherine Manly

Ross Markle
Joshua Marland
Adrian D. Martin
Christian Mathews
Haifa Matos-Elefonte
Peter McDermott
Tabitha McKinley
Rochelle Michel

Sebastian Moncaleano

Scott Monroe Judith Newman Sarah Newton Frank Padellaro

Rene Parmar Dena Pastor

Thanos Patelis

Jessica Pawlik-York

Duy Pham

Elisabeth Pyburn Katherine Reynolds

Francis Rick
Gabriel Rodriguez
Jonathan Rubright
Jennifer Saleta
Mildred Savidge
Jessica Schwartzer

Carl Setzer

Elizabeth Simmons Whitney Smiley Jonathan Steinberg Tricia Stewart Matthew Swain Sudha Swaminathan Wanda Swiggett Darius Taylor

Ye Tong

Elizabeth Tonogbanua

Clarissa Uttley Johan van der Jagt

**Bridget Thomas** 

Xi Wang Craig Wells Cathy Wendler Olcay Yavuz Xiaoran Yu April Zenisky

Whitney Zimmerman



# THE CENTER FOR ASSESSMENT & RESEARCH STUDIES JAMES MADISON UNIVERSITY.



- Center for Assessment & Research Studies http://www.jmu.edu/assessment
- Ph. D. Program in Assessment & Measurement http://www.psyc.jmu.edu/assessment/
- M.A. in Psychological Sciences (Quantitative Psychology) http://www.psyc.jmu.edu/psycsciences/ quantitativepsyc.html
- Graduate Certificate in Higher Education http://www.jmu.edu/outreach/programs/all/ assessment/

MSC 6808 Harrisonburg, VA 22807 assessment@jmu.edu Phone: 540.568.6706 Fax: 540.568.7878





Helping students take their education higher.

collegeboard.org

CollegeBoard

© 2017 The College Board.





Promoting surgical excellence since 1937

The American Board of Surgery serves the public and the specialty of surgery by providing leadership in surgical education and practice, by promoting excellence through rigorous evaluation and examination, and by promoting the highest standards for professionalism, lifelong learning, and the continuous certification of surgeons in practice.

www.absurgery.org | @AmBdSurg | www.facebook.com/AmBdSurg 1617 John F. Kennedy Blvd., Suite 860 | Philadelphia, PA | 19103 USA

### **Meeting Information**

#### **Location** All Events for the NERA 2017 conference take place at Trumbull Marriott

Merritt Parkway Hotel in Trumbull, Connecticut. The contact information

for the hotel is as follows:

180 Hawley Ln, Trumbull, CT 06611 Phone: (203) 378-1400

#### Registration

The NERA 2017 registration desk will be located in the Marriott's lobby area conference foyer. There will be signs and a map at the front of the hotel to direct attendees to registration. Registration will be open the following times:

Wednesday, October 18th: 9:00am-5:30 pm

Thursday, October 19th: 7:30 am–12:00 pm & 2:00 pm–5:30 pm

Friday, October 20th: 7:30 am-11:30 am

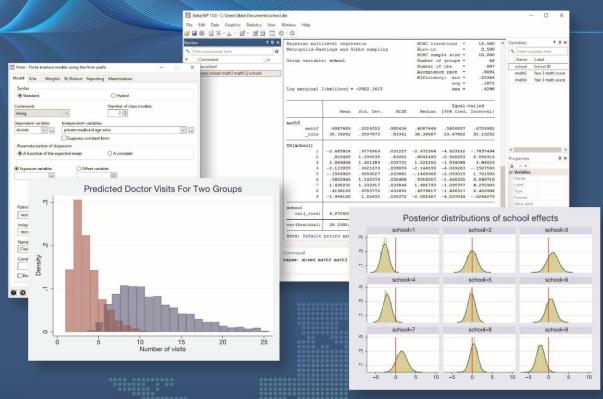
#### Conference Meals

NERA attendees typically dine together Wednesday evening through Friday lunch. All meals are included with conference registration.

#### **Business Center**

The hotel's business center is located on the main floor in the library area.

# Announcing 57a7a release 15



#### New in Stata 15

- · Latent class analysis
- Multiple-group SEM for binary, ordered, count outcomes
- Multiple-group multilevel SEM
- Nonlinear multilevel models
- PDF and Word documents with Stata results and graphs
- Nonparametric regression

- Finite mixture models
- Power analysis for regression
- Markdown—create webpages with Stata output, graphs ...
- Multilevel tobit and interval regression
- Mixed logit models
- Heteroskedastic regression

- bayes: prefix for easily fitting Bayesian regression models
- Bayesian multilevel models
- Spatial autoregressive models
- Endogeneity + Selection + Treatment
- Transparency on graphs
- Much more!

Find out more about Stata 15 at stata.com/nera2017.

Don't miss Chuck Huber's presentation of Stata 15 during the tech demo session from 2:15 to 3:45 on October 19!

Stata is a registered trademark of StataCorp LLC, 4905 Lakeway Drive, College Station, TX 77845, USA.

### **About NERA**

NERA welcomes individuals conducting research in all aspects of education including learning, curriculum and instruction, educational policy and administration, measurement, statistics, research methodology, counseling, human development, social context of education, cultural diversity, special education and rehabilitation, educational assessment, school evaluation and program development, education in the professions, post-secondary education, teaching and teacher education, technology in education, creative arts in the schools, and others.

**Leadership President**: Craig Wells, *University of Massachusetts Amherst* 

**President-elect**: Javarro Russell, *Educational Testing Service* 

Past President: Charlie DePascale, Center for Assessment (NCIEA)

**Secretary**: Mary Yakimowski, *Sacred Heart University* **Treasurer**: Steven Holtzman, *Educational Testing Service* 

**Board of Directors** Carol Barry, *The College Board* 

Felice Billups, Johnson & Wales University

Tia Fechter, Pacific Metrics

Andrew Jones, *American Board of Surgery*Salika Lawrence, *Medgar Evers College, CUNY* 

Ross Markle, *Educational Testing Service* Elizabeth Pyburn, *James Madison University* 

**NERA Researcher** 

**Co-Editors** 

Katrina Roohr, Educational Testing Service

Katherine Reynolds, Boston College

Webmaster Bozhidar Bashkov, American Board of Internal Medicine

2017 Conference Co-

Chairs

Daniel Jurich, National Board of Medical Examiners

Jason Kopp, American Board of Surgery

Whitney Smiley, American Board of Internal Medicine

2018 Conference Co-

Chairs

Jade Caines Lee, *University of New Hampshire* 

Tabitha McKinley, New Jersey Department of Education

Darlene Russell, William Patterson University

Conference

**Proceedings Editor** 

Jason Kopp, American Board of Surgery

**Mentoring Program** 

**Co-Chairs** 

Juliette Lyons-Thomas, Regents Research Fund

Jerusha Henderek, National Board of Medical Examiners



Fostering greater student learning through improved assessment and accountability systems.

Providing customized technical assistance to over 35 states in designing and implementing fair and effective assessment and accountability systems.



31 Mount Vernon Street Dover, NH 03820 603.516.7900 www.nciea.org





University of Massachusetts Amherst

Dedicated to enhancing the practice of education through scholarship that informs the preparation of educational professionals, the improvement of educational systems, and the development of education policy.



Enriching education locally, regionally, globally.

#### **NERA Standing Committees**

**Communications Committee** 

Chair: Monica Erbacher Smith

University of Arizona

#### Members

S. Jeanne Horst, *James Madison University* Jonathan Steinberg, *Educational Testing* Service

Duy Pham (Email Coordinator), *University of Massachusetts Amherst*Bozhidar Bashkov (Webmaster), *American Board of Internal Medicine*Chastity Williams-Lasley (Social Media Coordinator), *Duquesne University* 

Membership Committee

Chair: Tabitha McKinley

New Jersey Department of Education

#### Members

Rochelle Michel, Educational Testing Service Matthew Madison, University of California Los Angeles

Tanesia Beverly, *University of Connecticut* Francis Rick, *University of Massachusetts Amherst* 

Nick Curtis, James Madison University

Teacher-as-Researcher Issues Committee

**Chair**: Darlene Russell William Paterson University

#### Members

Elizabeth Alexis, *St. John's University* Lisa Bajor, *St. John's University* Francine Falk-Ross, *Pace University* Tina Tsiokris, *St. John's University*  Nominations Committee

Chair: Charles DePascale

National Center for the Improvement of

**Educational Assessment** 

#### Members

Barbara J. Helms, *Educational Evaluation Consultant* 

Kristen Huff, Curriculum Associates
Thanos Patelis, National Center for the
Improvement of Educational Assessment
Lynn Shelley, Westfield State University
April Zenisky, University of Massachusetts
Amherst

#### Graduate Student Issues Committee

**Chair**: Elisabeth Pyburn *James Madison University* 

#### Members

University

Hongyu Diao, *University of Massachusetts Amherst* 

Emily Ho, Fordham University Catherine Mathers, James Madison University Katherine Nolan, Pennsylvania State

Joshua Marland, Education Analytics

Xi Wang, University of Massachusetts Amherst



# 1914

# IMPACT EDUCATION AT JWU

Ed.D. in Educational Leadership



AFTER NEARLY THREE DECADES of teaching Fisher students, JWU alumnus Thomas McGovern '01 became their college president. Was he prepared to lead a bold strategic plan at the historic Boston college? Yes, he says — because of his Educational Leadership Doctorate.

"The education I received at Johnson & Wales
University has truly enhanced my ability
to define how I can make an impact on
one's education."

# EDUCATIONAL LEADERSHIP PROGRAM

Center for Research & Evaluation John Hazen White College of Arts & Sciences

Johnson & Wales University is an active member of the Camegie Project on the Education Doctorate (CPED), a national effort by 88 institutions to reform and strengthen the education doctorate.

> For more information, call 401-598-1838 or visit www.academics.jwu.edu/graduate-studies.

#### **NERA Award Committees**

#### **Thomas Donlon Mentoring Award**

Chair: Deborah Bandalos James Madison University

#### Members

Ann Hassenpflug, University of Akron Cathy Wendler, Educational Testing Service

#### Leo D. Doherty Memorial Award

Chair: Barbara J. Helms Educational Evaluation Consultant

#### Members

David Moss, University of Connecticut Steve Sireci, *University of Massachusetts* Amherst Elizabeth Stone, Educational Testing Service

#### Lorne H. Woollatt Distinguished Paper

Chair: Abigail Lau Emmanuel College

#### Members

David Alba, Concordia University Michael Deasy, Athol Royalston Regional School District Claire Mastromonaco, Bridgeport Connecticut School District Rochelle Michel, Educational Testing Service Kathleen Sheehan, Educational Testing

Johan van der Jagt, Bloomsburg University of Pennsylvania

#### **NERA Ad-Hoc Committees**

#### **Infrastructure Committee**

Chair: Joshua Marland, Education Analytics

#### <u>Members</u>

Bozhidar "Bo" Bashkov, American Board of Internal Medicine Steven Holtzman, Educational Testing Service Jason Kopp, American Board of Surgery

#### Wednesday, October 18, 9:30-12:30

#### **Session Information**

Session 0.2: How to Create a Viable Mixed Methods Research Proposal: A Workshop for Graduate Students and Postsecondary Research Teachers

Workshop Merritt North

Facilitator: Thomas Christ, University Of Bridgeport

Mixed methods and action research are extremely popular research designs. This three-hour workshop highlights a variety of methodological skills used to define, frame, and prepare an action or mixed methods research proposal. The workshop emphasizes the strengths and limitations of various research paradigms and how they are logically mixed or integrated within a single study. Special attention will be paid to the critical role of the researcher, theory, forms of validity and credibility, generalization of the results, and specifics about data choice, collection, analysis, blending and integration. This workshop is designed for graduate students and postsecondary research teachers who learn strategies that enhance the mixed or action research proposal process with reference to headings, methodological diagramming and key literature.

Session 0.3: Moving from Paper to Online Assessments: Psychometric, Content, and Classroom Considerations

Workshop Merritt South

Facilitators: Susan McNally & Ye Tong, Pearson

Moving away from paper, or to both paper and online assessments, requires considering comparability, and the best way to assess content. Creating meaningful online assessments requires understanding issues faced by psychometricians, content experts, and teachers and students. Decision-making processes for developing and administering online assessments from both psychometric and content points of view will be discussed, along with classroom implications based on teaching experience and teacher feedback. Participants will receive instruction around common practices and challenges faced by technology enhanced items (TEIs). Hands-on experience with TEIs will focus on making decisions about assessment formats, item types, and scoring.

# **Session 1.1: Advancing Education Through Technology (Highlighted Symposium)**Symposium Augusta

Chair: Whitney Zimmerman, The Pennsylvania State University

This featured symposium presents two applications of innovative technology in educational contexts.

Introduction To Using Simulation-Based Inference (SBI) Methods For Teaching Statistical Concepts
Daisy Philtron & Whitney Zimmerman, The Pennsylvania State University

Simulation-based inference (SBI) methods may be used to communicate statistical concepts. Simulations are mentioned in several Common Core standards at the middle and high school levels and are also being incorporated into post-secondary courses. We will introduce the statistical theory behind SBI methods (bootstrapping/randomization); relate these methods to the Common Core and GAISE standards; demonstrate an activity from our introductory statistics course; and share resources for those interested in incorporating SBI methods into their teaching. Individuals who teach undergraduate-or graduate-level statistics courses are encouraged to attend as well as those involved in K-12 math teacher education.

#### Leveraging Technology To Inform An Educational Research Agenda

Kathleen Landy & Andrea Salis, Queensborough Community College

It is essential for educational researchers to recognize the ways in which the use of technology can advance education. This recognition involves exploring the distinct technologies actively used in the classroom, at the program level and at the institutional level. In this symposium presentation, participants will explore several key questions to develop a deeper understanding of the function, scope, and purpose of the technologies used on their campuses. This understanding can be used to inform a campus-specific educational research agenda and highlight opportunities to apply authentic and meaningful research methodology.

# **Session 1.2: The Art of the Interview: Helpful Tips from Experienced Professionals**GSIC Session Boston

Moderators: Tom Waterbury & Aaron Myers, James Madison University

In this session, a panel of professionals from different fields will share their thoughts and experiences about interviewing candidates for various positions. They will discuss tips for interviewees, including what to do and what to avoid, and attendees will be able to ask questions of the panelists.

#### **Panelists:**

Michael Jodoin, National Board of Medical Examiners

Deborah Bandalos, James Madison University

Javarro Russell, Educational Testing Service

# Session 1.3: Implementing the New Massachusetts Candidate Assessment of Performance at the University of Massachusetts Amherst

Symposium Concord

Chair: Gabriel Rodriguez, *University of Massachusetts - Amherst*Discussant: Jennifer Randall, *University of Massachusetts - Amherst* 

The panel will discuss how the University of Massachusetts' P12 Educator Preparation Program (1) transitioned twenty-seven teacher licensure programs from the Pre-Service Performance assessment (PPA) to the new Candidate Assessment of Performance (CAP), (2) trained Supervising Practitioners and Program Coordinators on how to properly rate candidates on the assessment, and (3) worked with faculty, cooperating teachers, and university supervisors in order to evaluate the transition process as well as the performance results of teacher candidates across the unit. Included in the data analyzed are rubric scores, surveys to teacher candidates, surveys to university supervisors, and interviews with university faculty involved in the educator preparation program. We highlight the significant results as well as implications for future practice.

# From Policy To Implementation: The Logistics Behind The Transition From The PPA To The CAP Gabriel Rodriguez, *University of Massachusetts - Amherst*

An overview of the challenges that an implementation of this magnitude brings to colleges of education will be presented. A brief discussion of the policy implementation from the state and the capacity of educator preparation organizations to comply with the transition from the PPA to the CAP. Differences between the PPA, which is an assessment based on an Evidence-Based model of assessing teacher candidates, and the CAP which is based on the Inspectorate Model of evaluating teacher candidates is discussed. The presentation will conclude with a brief description of the technology that aided in this implementation.

# Implementing Effective Supervisor Training For The Candidate Assessment Of Performance Ann Stephany, *University of Massachusetts - Amherst*

From large-group trainings to video conferencing to school site meetings, the options for supervisor training are numerous. In this session, participants will learn about: 1) creating meaningful and user friendly training materials utilizing curriculum design concepts; 2) implementing trainings through

various modalities to find the most effective methods; and 3) assessing training effectiveness that meets the needs of supervisors, faculty and candidates. This presentation will discuss the findings of a survey given to Supervisors that went through the College of Education's training and went through a full CAP cycle.

#### **UMass Teacher Candidate Performance On The New State Practicum Assessment**

Darius Taylor, University of Massachusetts - Amherst

In the following presentation, we evaluate the psychometric qualities of the CAP. Also, the scores of teacher candidates at the University of Massachusetts are analyzed and compared to candidate performance on the previous assessment to determine what kind of data and information can be gathered from each assessment and the implications that may have on educator preparation programs. The analysis for this study will be carried out using a mix of quantitative and qualitative methods.

# Educator Preparation Faculty Perspectives On The New Candidate Assessment Of Performance Tara Pepis, *University of Massachusetts - Amherst*

The Candidate Assessment of Performance (CAP) presents Educator Preparation Institutions with not just a change in the rubric or in the language of the previous assessment, but with a change in the model the state wants to use to assess teacher readiness in licensure candidates. This presentation focuses on a number of interviews with current faculty members in the College of Education at UMass Amherst that work directly with teacher preparation. The interviews focus on the perspective of faculty members across a variety of subject matters on the qualities of the new assessment in comparison to the previous assessment. Qualitative analysis is used to present results, and implications for practice are discussed.

# **Session 1.4: Detecting Item Exposure and Person Misfit**Paper Session

Hartford

Chair: Jonathan Steinberg, Educational Testing Service

Discussant: Jonathan Rubright, National Board of Medical Examiners

# Comparison Of Approaches For Detecting Item Exposure: Mantel-Haenszel Versus IRT Approaches Weiwei Cui, College Board

This simulation study compares the sensitivity of the Mantel-Haenszel DIF analysis and IRT based item drifting analysis for investigating item exposure to the degree of item exposure, the psychometric features of the exposed items and the exposed examinee for test built using different IRT models.

#### Further Investigation Of The Iz\* Person-Fit Statistics Under Model Misspecification

Seong Eun Hong & Scott Monroe, University of Massachusetts - Amherst

In educational measurement, person fit statistics are designed to assess the fit between a response pattern and the IRT model. A critical assumption in the performance of these statistics is correct model specification. This study investigates violations of this assumption: how person-fit statistics are affected by various model misspecifications.

# The Effect Of Ability Estimation Methods On Detection Of Item Preknowledge Using The Ls And Rs Hyunjoo Jung, *University of Massachusetts Amherst*

Recently, Sinharay (2017) suggested the signed likelihood ratio statistic (Ls) and the signed score statistic (Rs) to detect item preknowledge. In this study, we investigate the performance of these statistics across various conditions, sample size, the number of items, the proportion of compromised items, and ability parameter estimator.

### The Functionality Of The Ls And Rs Statistics To Detect Preknowledge In The Presence Of Estimation Error

Yooyoung Park, University of Massachusetts Amherst

Sinharay(2017) examined two statistics, Ls and Rs, for detecting examinees with item preknowledge via a simulation study in the unrealistic context where the item parameter estimates were error-free. The present study investigates the functionality of Ls and Rs for detecting preknowledge statistics when the item parameter estimates contain estimation error.

#### Session 1.5: Educational Accountability

Paper Session Providence

Chair: Mary Yakimowski, Sacred Heart University

Discussant: Ye Tong, Pearson

# Effects Of NH's Performance Assessment Of Competency Education Innovative Accountability System On Student Achievement

Carla Evans, University of New Hampshire

This study investigates the effect of NH's PACE pilot on 8th grade outcomes and the extent to which those effects vary according to student characteristics. Findings suggest that the pilot is having a positive effect on math outcomes and no effect on ELA outcomes. Students with disabilities positively benefit.

### Using Socio-Economic Factors To Develop An Equitable Approach To Evaluating Performance On Common Core Assessments

Charles Britton, David Title, & Paul Rasmussen, Sacred Heart University

This quantitative study uses a least-squares regression model to determine the predictive power of socio-economic factors on district-level student achievement on new, Common Core-aligned standardized assessments. We posit that educators may use our methodology and model to control for socio-economic factors, and more equitably compare school district performance.

#### **Investigating The Impact Of Student Opt Out On Value-Added Measures**

Joshua Marland, Education Analytics

Student assessment opt out has increased substantially in K-12 schools in states across the country, and has the potential to impact growth measures used for accountability. This study investigates the extent to which teacher value-added measures are impacted as a result of varying degrees and types of nonrandom opt out.

#### **Comparing Instruments For Observing Classroom Practice**

Thomas Coen, Mathematica Policy Research

This presentation is designed to inform decisions about the selection and use of five widely-used teacher observation instruments by describing the content, predictive power, and potential bias in each instrument.

#### The Academic Advisor Effectiveness Instrument

Dakota Cintron, University of Connecticut

This study aims to contribute to the measurement of academic advisor effectiveness in undergraduate populations by constructing the psychometrically informed Academic Advisor Effectiveness Instrument. The study discovered two tenable factors of Empowerment ( $\alpha$  = 0.956) and Depth of Relationship ( $\alpha$  = 0.960) which characterize student's interactions with their academic advisor.

# Session 1.6: Applications of an Alignment Evaluation Framework Workshop Merritt South

Facilitators: Ellen Forte, Liz Summers, Elizabeth Greninger, & Lauren Deters, edCount, LLC

Based on Forte (2013, 2017), this workshop will provide participants with solid grounding in alignment evaluation methods for standards-based assessments within the contexts of principled-design assessment development, US federal peer review requirements, and the Standards for Educational and Psychological Testing (AERA/APA/NCME, 2014). Participants will break into groups for an activity in which they consider an alignment plan and conduct ratings of standards, claims, Performance Level Descriptors (PLDs), task models, blueprints, and items. The workshop will conclude with a discussion of communication strategies in terms of reports and questions from stakeholders, including the media, parents, and technical advisory committees.

#### Session 2.1: Opportunities and Challenges for Educator Preparation Programs Obtaining Measures on Student Learning

Symposium Augusta

Chair: Mary Yakimowski, Sacred Heart University

Discussant: Colleen MacKinnon, Independent Consultant

This symposium will offer perspectives from three higher education institutions offering educator preparation programs examining completers' measures on student learning. Presenters will share opportunities and challenges provided to address the accreditation standards of the Council for the Accreditation of Educator Preparation (CAEP).

#### **Applying Observations And Focus Group Of Completers**

Dean Allen Cook & Nancy DeJarnette, Bridgeport University

Presenters describe the first university's strategy to conduct a focus group with a few completers employed in schools to address CAEP Standard 4. In this design, faculty members sought out willing recent graduates to participate. Completers were targeted from across various programs to support a representative sample. The protocol consisted of faculty members observing a lesson in the completers' classroom using the Danielson Frameworkevaluation, the same instrument used when they were candidates (Danielson, 2012). They then participated in either a small focus group with other completers, or an individual interview. Completers and their administrators also participated in an online survey addressing satisfaction. Finally, participants were asked to share anonymous student impact data. Results, strategies, and struggles will be shared.

#### **Applying A Case Study Methodology**

Kathryn Turcsany Manley & Mary Yakimowski, Sacred Heart University

Presenters share the second university's case study addressing the new direction for inquiry established by CAEP, for which research regarding the impact of teachers in practice on pupils are explored. Conducted with the assistance of a 6th Year Advance Studies in Educational Leadership candidate, this case study examined the question: How do alumni with less than five years teaching experience, currently working in certified positions in one urban community, demonstrate their impact on pupil achievement? Recent graduates' feedback regarding their experiences while completing the preparation program and during their initial year(s) of instructing pupils, elements of pupil achievement, and evaluation by principals were also examined. Recommendations for future research, opportunities, and challenges will be presented and discussed.

#### **Adding Survey Methodology And Triangulating Results**

Mary Yakimowski & Kathryn Turcsany Manley, Sacred Heart University

Different presenters from this second university discuss the development and implementation of employer and alumni (completer) surveys. Qualitative and quantitative data was gathered through a survey of novice teacher alumni and a survey of employers. Aligned with CAEP guidance offered, this offered a phase-in plan with key attributes of this research plan including the relation to the standard(s) or element(s) (e.g., explicit links and description of the content and objective of the data/evidence collection), timelines and resources (e.g., detailing of strategies, steps and a schedule for collection through full implementation, and indication of what was to be available by the time the site visit, data quality), and data quality (e.g., description of procedures to ensure a level of three or above on the CAEP assessment rubric.) Purposeful samples were used. To ensure content validity and validate the

interpretations made of the data, steps implemented to analyze and interpret the findings via triangulation (e.g., through discussion with the Assessment Advisory Committee) for continuous improvement are presented and opportunities and hurdles offered.

#### **Embracing High Leverage Clinical Practice**

Jacob Easley, Eastern Connecticut State University

The presenter from the third university discourse begins that there is no dispute that clinical practice is essential for effective preparation of future teachers. This fact is recognized in the literature on clinical practice (Anderson & Stillman, 2013; Cochran-Smith, 1991; Evertson, 1990; Musset, 2010; Purpel, 1967), as well as this university's educator preparation programs (blinded, 2017). This presenter will discuss how his university espouses guidelines for cohesion and effectiveness of clinical preparation in teacher education with five central vectors: Partnerships; Selection and Development of Clinical Faculty; Academic Faculty; Program Pedagogy; and Evidentiary Practice. Regarding the latter, effective clinical practice is based on sound and reliable evidence that candidates can support the learning and development of P-12 students (including students of diverse abilities, socio-economic, linguistic, and cultural backgrounds). Results are documented and reported for decision-making. He will share how this tenet for high leverage clinical practice may resonate with many as common sense. However, program assessment on and documentation of P-12 student learning remains challenging for many institutions. This presentation will address instructional challenges for developing the assessment skills of candidates while simultaneously attending to its own evaluation of program efficacy of P-12 student learning in ways that are meaningful to all parties. These challenges along with vignettes of program sample designed to address identified impediments will be offered for collegial exploration and discussion.

# **Session 2.2: Mentoring in a Post-Secondary Environment**Symposium

Boston

Chair: Marcella Mandracchia, Hostos Community College

Discussant: Steven Neier, St. John's University

There has been a call in the field of education to prepare college students to be career ready and able members of civil society with strong mentors. Therefore, these three papers show perspectives of mentoring our disadvantaged student populations and how technology impacts mentoring.

#### **Mentorship And Post-Secondary Homeless Students**

Weedens Blanchard, St. John's University

The purpose of this research case study was to examine a post-secondary pilot program that provides education to select New York City homeless adults at a private university. In this study, the researcher examined how the Academy program assists homeless and disadvantaged adults to obtain post-graduate employment opportunities through academic preparation and personal development. Utilizing Putnam, Feldstein, & Cohen's (2003) theory of Social Capital, the researcher further examined how the study participants' successful completion of the Academy program impacted human and social capital.

#### **Women And Undergraduate STEM Mentorship Programs**

Marisa Forbes-Ingram, Explore Charter School

The staggering underrepresentation of women in STEM fields is well-documented. Given the gender gap, there is a need to increase the number of women pursuing STEM related fields and careers. Despite growing numbers of women entering college with a desire to pursue STEM related fields, too many of these women fail to actualize this pursuit upon graduation. Research has shown the positive effects of mentoring on retention, particularly among individuals participating in and aspiring to attain STEM degrees. The study sought to evaluate STEM mentorship programs, and their efficacy in addressing the lack of women's persistence through the college STEM pipeline.

# The Effect Of A Peer Mentoring Program On The Educational Outcomes Of African American And Hispanic Freshmen

Robert Mangione, St. John's University

Peer mentoring programs are of vital importance because of disparities in retention rates, persistence, attrition, and academic success factors among traditional and nontraditional students (Dominguez, 2015). Mentoring is a potentially effective tool for engaging minorities as accreditors, regulators, and stakeholders challenge the performance of higher education while calling for greater accountability, affordability (Shear, 2015), and transparency, with proof through outcomes assessment of institutional effectiveness (Shin, 2010). This study assessed the effect of participation in the R.I.S.E. Network (Reach, Inspire, Succeed, Empower) on educational outcomes of African American and Hispanic freshmen.

# Session 2.3: Measuring and Investigating Noncognitive Constructs Paper Session Concord

Chair & Discussant: Jerusha Henderek, National Board of Medical Examiners

#### **Mediating Fitspiration Imagery Through Media Literacy Intervention**

Joanne Crossman, Saint Leo University

Fitspiration imagery (an amalgamation of fit and inspiration) is social media Mecca, purportedly promoting exercise and nutrition, although associated with female objectification and poor body conceptualization. This study investigated Fitspiration from a Social Comparison framework, and identified a social media literacy model known to inspire a renewed vision of health.

# When Should Examinee Motivation Be Measured? A Structural Means Modeling Approach Aaron Myers & Sara Finney, James Madison University

Motivation scores (typically) collected after test completion may reflect self-protective attributions of test performance. Structural means models were fit to motivation scores collected both before and after examinees completed a test. We found measurement invariance of prospective and retrospective scores. However, average retrospective motivation scores were lower than prospective scores.

### Development And Validation Of An Instrument To Measure Attitude Of Undergraduate Students Towards Statistics

Debrishi Bose, University of Connecticut

The purpose of this paper is to develop and validate an instrument to measure the attitude of students towards statistics. An analysis of responses from undergraduates revealed a new construct, environmental influence, that affects students' attitude towards statistics. The implications of this finding for statistics education is discussed.

#### **Measuring Grit And Resiliency In Undergraduate Students**

Emma Bloomfield & Aarti Bellara, University of Connecticut

This paper discusses the process of designing and validating an instrument for measuring grit and resiliency in college undergraduate students. The researcher hopes this paper helps bring attention to the need for further research into the relationship between how grit and resilience influence academic achievement.

### Session 2.4: Diagnostic Measurement

Paper Session Hartford

Chair: Derek Sauder, James Madison University

Discussant: Bo Bashkov, American Board of Internal Medicine

#### A Diagnostic Classification Model For Polytomous Attributes

Yu Bao & Laine Bradshaw, University of Georgia

Most diagnostic classification models (DCMs) provide dichotomous feedback about students' mastery levels. Delineating mastery categories into 3 or more levels is useful for tailoring instruction. We propose a polytomous DCM (PDCM) and illustrate the model through an empirical data set where the PDCM showed improved fit over a dichotomous DCM.

#### Technology-Based Diagnostic Assessment Systems: Score Interpretations And Uses

Zachary Feldberg, University of Georgia

Formative assessment systems vary greatly in methodologies used to generate diagnostic feedback and how feedback is displayed in score reports. Through teacher interviews, we examine how reports influence the degree to which teachers make interpretations supported by the systems' underlying methodology and how those interpretations impact the use of results.

#### Using Diagnostic Classification Models To Evaluate A Learning Progression Theory

Duy Pham, *University of Massachusetts Amherst*; Malcolm Bauer & Caroline Wylie, *Educational Testing Service*; Craig Wells, *University of Massachusetts Amherst* 

This paper presents findings of using a diagnostic classification model to validate a theory of three related learning progressions. Similar to previous analyses, the results supported a portion of the theory. It also suggested some future directions to revise it and build formative assessment from the validated predictions.

#### A Diagnostic Approach To Gain Score Analyses

Matthew Madison, University of California - Los Angeles

Gain scores are commonly used in educational contexts to assess growth in students. This study examines longitudinal diagnostic classification models as an alternative to gain scores analyses for assessing growth. We demonstrate that longitudinal diagnostic classification models can have higher reliability and stronger interpretive value than gain score analyses.

# **Session 2.5: Research on Educational Outcomes**Paper Session

Montpelier

Chair & Discussant: Steven Holtzman, Educational Testing Service

#### Variable Selection To Predict Mathematics Achievement In The TIMSS- Advanced

Maritza Casas, University of Massachusetts Amherst

The purpose of this study was to identify a set of variables that are associated with mathematics achievement in the TIMSS Advanced. A penalized linear regression approach was implemented to perform variable selection using cross-validation methods. Partial results provide evidence in favor of a six-variable linear model.

# An Examination Of The Relationship Between Argumentation Quality And Students' Growth Trajectories

Theo Dawson, Lectica

In a 2.5 year cross-sectional longitudinal study of 276 students, those who demonstrated better argumentation skills at time 1, after developmental level had been taken into account, developed more rapidly than students whose initial argumentation skills were poor. In this paper, we discuss the research and its implications.

#### **Merging Learning Outcomes And Engagement Research**

Shane Kerr, James Madison University

Engagement is used as an indicator of collegiate quality and for educational improvement. The relationship between engagement and learning outcomes is of particular interest. Current methods in engagement research tend to use indirect measures of learning outcomes and broad behavior oriented questions. These methods are explored and discussed.

#### **How Do States Assess And Validate College Readiness?**

Thomas Robertson & Kimberly Colvin, University at Albany, SUNY

This study's purpose is to explore how states assess college readiness and, more importantly, what validity evidence has been collected to support these measures for that use. Are certain aspects of construct validity more prevalent? Does validity evidence exist specifically geared to college readiness and not another related construct?

# Exploring The State Of Science Stereotypes: Systematic Review And Meta-Analysis Of The Draw-A-Scientist Checklist

Stephanie Lezotte & Sarah Ferguson, Rowan University

This systematic review and meta-analysis evaluates the use of the 1995 Draw-a-Scientist Checklist in articles published 2010-2017 to assess students' perceptions of scientists. Results across articles are presented to frame current student stereotypes of scientists. Discussion focuses on the needs for revisions to the checklist to capture modern scientist stereotypes.

# **Session 2.6: Research on Early Childhood Education**Paper Session

Providence

Chair & Discussant: Barbara Helms, Education Evaluation Consultant

#### **Effective Math Talk During Preschool Play**

Sudha Swaminathan & Jeffrey Trawick-Smith, Eastern Connecticut State University

We examined the types of Math Talk that is most effective in enhancing Math growth in preschoolers. Video data was analyzed and coded. Results indicate that math talk by teachers, especially open-ended constructive conversations that are focused on higher levels of math such as abstract counting were most effective.

# Considering Preschool Teacher Compensation In Context: Income-To-Needs Ratios And Cost Of Living Bridget Thomas, *George Mason University*

Existing investigations of the low compensation of preschool teachers offer little consideration of the nuances of these numbers. This study was a more contextualized analysis that considered how compensation relates to income-to-needs ratios and real-world cost of living. Results indicated that many well-educated teachers live barely above poverty lines.

# Comparison Between Reported And Intended Uses Of Assessments In Early Childhood Education Classrooms

Lianne Khoo, Sacred Heart University; Clare Irwin, Education Development Center; Michael Strambler, Yale University

Assessments are used for many purposes in early childhood. It is important that educators use assessments for purposes in line with the intended purpose described by test developers. This study is a first exploration into the match between teacher-reported use of assessments and the intended purpose of early childhood assessments.

#### An Examination Of The Predictive Validity Of Early Reading Screening Instruments

Amadee Meyer & Amanda Marcotte, University of Massachusetts, Amherst

This paper will examine the predictive relationship between two commonly used early reading screening instruments and a later outcome measure. Screening tools to be investigated include the Developmental Reading Assessment, Second Edition (DRA2; Pearson, 2011) and the AimsWeb Tests of Early Literacy (TELs) and Aimsweb Reading Curriculum Based Measurement (R-CBM).

# Session 2.7: Educational Technology Featured Poster Session Poster Forum Merritt North

# Professional Development ICT Training Initiatives At Flagship Universities: Practices And Challenges Weiyan Xiong, *University of Pittsburgh*

This presentation explores best practices and roles of information and communication technology (ICT) in professional development centers (PDCs) at 16 flagship universities. Leaders of PDCs shared through in-depth oral interviews about the current ICT practices as well as strengths and limitations of their own centers.

#### A Study Of Device Effects On The Smarter Balanced Assessments In Connecticut

Xiaoran Li, *University of Connecticut*; Mohamed Dirir, Pei-Hsuan Chiu, & Ajit Gopalakrishnan, *Connecticut State Department of Education* 

This study investigated the effects of devices used to deliver the Smarter Balanced assessment on student performance. A hierarchical Linear Model was used to capture the performance differences among groups using different devices to access the test. Effects due to attended school district and free/price-reduced meal eligibility were controlled.

# The Effect Of Online Discussion Forums On Student Participation And Engagement Amy Gnida, Holdrum Middle School

This study measured the growth of eighth grade students in a social studies class as they participated in online discussion board sessions. It was hypothesized that the implementation of an online discussion board would increase students' class participation on a daily basis and foster greater interest in social studies

#### **Evaluating Professional Outcomes For Online Educational Doctoral Students**

Michelle Collay & Erin Connor, University of New England

This study documents Ed.D graduates' responses to a follow up survey about professional advancement after completing the doctorate. They provided examples of reaching career goals, enhancing their careers through promotions, and gaining confidence and credibility. The majority of those surveyed described positive professional outcomes.

# Assessing Development In Reading Comprehension Through A Computer Adaptive Assessment Raffala Wolf & Alison Mitchell, *Lexia Learning Systems*

The development of students' reading comprehension skills over three time periods for grades 3 through 10 is examined via computer adaptive technology. Latent Growth Curve analyses are conducted to examine the shape of development over time for each grade and whether initial reading comprehension scores predict the rate of change.

# Perceptions of Worth & Performance in Adult & Traditional Online Introductory Statistics Students: Examining Andragogy

Whitney Zimmerman, The Pennsylvania State University

Knowles' concept of andragogy suggests that adult and younger students' learning experiences differ. Adults need to perceive the value in learning something before investing their time and effort. Relations between perceptions of worth and achievement were compared for adult and traditional students in an online introductory statistics course.

# The Strategies Instructors Use to Assess the Effectiveness of their Online Course Design Naelah Almuqwishi, *University of Hartford*

Increasingly, higher education institutions in the U.S. and globally are developing online courses to make education readily available to more individuals around the world (NCES, 2011). As such, the purpose of this mixed-methods study was to identify the strategies instructors use to assess the effectiveness of their online course

#### Item Selection and Test Termination for CATs with Domain-Specific Scores

Logan Rome, Curriculum Associates

This simulation study evaluates an item selection and test termination method for computerized adaptive tests that estimate domain-specific scores. The method aims to achieve a desired level of measurement precision for each content domain. This new approach is compared to existing methods for constrained CAT.

# Self-Care and Mindfulness: Using Technology to Promote Health and Combat Burnout in Schools Paula Gill Lopez, Sarah Rudolph, Noel Dibona, & Alaina Chapman, Fairfield University

Mindfulness and self-care strategies lower stress and burnout risk, and increase emotional regulation and general health. Using mindfulness websites, apps, videos, and audio meditations, practicing self-care has become easier than ever before. This presentation demonstrates the benefits of self-care and educates participants regarding the free mindfulness media at their disposal.

# **Technology-Infused & Data-Driven Lesson Planning In The Third Grade Urban Classroom Setting**Alyssa Cruz, *Family Life Academy Charter School II*; Marie White, *Nyack College Manhattan Campus*

This paper examines components necessary for technology-infused lesson planning that prove effective and powerful tools to engage students in self-monitoring using meaningful curriculum and data driven instruction. The adaptive use of technology encourages students to self-evaluate while exploring content in a topical format with goals for developing higher-order thinking skills.

# **Educational Data Mining: A LASSO Linear Mixed Model Approach** Yanyan Fu, *UNCG*

The study first introduced the LASSO Linear Mixed Model (LMM) approach as a method for data mining in educational research. The approach was applied to a two-level survey dataset to find the best predictors of academic performance of teenagers. Out of 56 variables, five meaningful predictors were selected.

# Human Infrastructure Challenges of the Technology Instructional Leader: A Phenomenological Case Study

Sousan Arafeh, Southern Connecticut State University

This session shares results from a phenomenological case study of one new Technology Integration Specialist's experience negotiating his first two years of public middle school technology leadership. The focus is on challenges and opportunities presented by the 'human infrastructure' as he sought to advance educational excellence in his school.

# **Session 2.8.1: Educational Technology - Challenges and Opportunities**Roundtable Salon E - G

Facilitator: Ann Fradkin-Hayslip, St. Bonaventure University

#### Poverty And The Challenges It Imposes On Technology In The Classroom And Beyond

Ann Fradkin-Hayslip, St. Bonaventure University

This study examines the number of school aged children who live at or below the poverty level and to explore how these parameters challenge teachers to use technology to advance education both in the classroom and at home.

#### **Rethinking The Frame For Student Success Given Technological Innovation**

Catherine Manly, University of Massachusetts, Amherst

Students experience their trajectories to higher educational success holistically, although institutions may frame student success in a more limited way. This roundtable engages participants in a discussion about emerging research approaches incorporating individual, institutional, and societal perspectives on student success, including what is desirable for effective research in this area.

#### Teacher Training On The Use Of Technology In The Classroom: A Literature Review

Nicholas Prehn, Rutgers University-Camden

This paper is a literature review, which places four peer-reviewed studies of teacher training on technology integration in conversation with one another. After a brief summary of each, the paper discusses possible educational implications and future studies related to classroom technology use.

# **Session 2.8.2: Educational Technology Interventions and Applications**Roundtable Salon E - G

Facilitator: Edward Lehner, Bronx Community College, CUNY

### Sign Up And Write: Giving Access And Writing Support To Graduate Students Through Online Writing Groups And Boot Camps

Jovana Milosavljevic-Ardeljan, University of New Hampshire

My institution offers many writing support programs, but, both published research and our own experience point to the need for an online program that enables students from different campuses, as well as commuters and non-traditional students, to attend our programs virtually. I share ideas and design for that online space.

### Microengagement, Online Formative Assessment, And College Writing Achievement Of Linguistically Diverse Students

Edward Lehner & John Ziegler, Bronx Community College, CUNY

Using Blackboard for all assessments, we investigated relationships among formative assessment variables and college writing achievement among linguistically diverse community college students. Pearson correlation analysis indicated five significant associations; a regression model showed three variables predicting 57% of achievement. Thus, online formative assessments help LD students overcome writing achievement barriers.

### Changing The Landscape Of Urban Education By Increasing Student Engagement Through The Utilization Of Technology During

Evelyn Nedderman, New York City Department of Education

The purpose of this qualitative study is to examine the perceptions of teachers about the implementation of technology programs to improve student academic engagement in an urban New York City public middle school district. Research has revealed that the technological disparity that exist should be a concern for education.

#### Blackboard Data Analytics Dashboard As A Catalytic Innovation For Higher Education

Edward Lehner & John Ziegler, Bronx Community College, CUNY

Course Management Systems such as Blackboard are a ubiquitous feature of higher education, but their potential applications beyond the level of the individual class, particularly to enhance student support at the institutional level, are underexplored. Our research employs a data analytic framework to attempt to bolster student support.

# **Session 2.8.3: Evaluation and Methodological Applications**Roundtable

Salon E - G

Facilitator: Christian Mathews, Rutgers University

#### The Retrospective Record Review: Using Electronic School Records For Research

Patricia Buxton, University of Bridgeport

The abundance of student records housed in K-12 schools across the country represents a largely untapped resource in the study of behavioral phenomena among children. This paper explains how the unobtrusive nature of the retrospective record review can yield new insight into the behavioral patterns of children.

### Creating/Piloting An Instrument To Measure The Relationship Between College Student Parenting Style And Grit

Kelly Dunn, Johnson & Wales University

Parents are extremely involved in the lives of college students. Research has explored how parents affect college student success; however, little research investigates the relationship between parenting and college student grit. This discussion will address the creation/pilot an instrument intended to measure the relationship between parenting style and grit.

### Use Of Teacher Evaluation For Improving Instruction: A Mixed Methods Investigation In Fourteen High-Poverty New Jersey

Christian Mathews, Rutgers Unversity

This mix methods study examines the link between teacher evaluation and instructional improvement within fourteen high poverty New Jersey charter schools. Results point to a potential need to improve training of administrators in the use of teacher evaluation to promote instructional improvement in line with evaluation reform efforts broadly.

#### **Advancing A Program For Health Through Technological Tools**

Xochitl Mendez, Lesley University

A conversation about using technological tools in a multidisciplinary vocal pedagogy and breath-training program to tackle pain and stress. For this Roundtable Discussion, I will engage in an exchange of ideas concerning the formative evaluation of this program, paying particular emphasis on the implementation of technology and mobile applications.

#### Session 2.8.4: Diverse Learners

Roundtable Salon E - G

Facilitator: Adrian D. Martin, New Jersey City University

### Understanding The Role Of Teachers' Culturally Responsive Attitude: English Language Learners Kisong Kim, St John's University

Policymakers have been more focused on English Language Leaners (ELLs) for their pathways to college but the achievement level still lags behind their non-ELL counterparts. To understand the discrepancy, a study was conducted to examine the role of teachers' culturally responsive attitudes using culturally responsive teaching as a theoretical framework.

### The Inclusion Classroom Teacher: Knowledge Development Of An Exceptional Population Emru Kiydal, Southern Connecticut State University

This study on the inclusion classroom teacher was conducted to investigate how teachers perceived the relative benefits of experience and training, and collaboration and planning on their knowledge development of an exceptional population.

### Exploring An English Learner's Engagement In A Literacy Event In A Mainstream Classroom: A Rhizomatic Inquiry

Adrian D. Martin, New Jersey City University

This presentation reports on an English Learner (EL) and his teacher in a mainstream classroom. A rhizomatic framework was employed to interpret their classroom experiences and posit educative and affective implications for ELs in general education classrooms. Findings suggest how each negotiated multiple teaching and learning challenges.

# **Session 2.8.5: Classroom Interventions and Considerations** Roundtable

Salon E - G

Facilitator: Kate Spence, Fairleigh Dickinson University

### Student Engagement And Retention Through Fun In-Class Projects Within The Field Of Manufacturing And Technology

Michael Wolter & Len Walsh, Goodwin College

Engaging and retaining students in the field of manufacturing is critical. While efforts on multiple fronts to create pathways to careers in manufacturing have intensified, academic institutions need to focus more on fostering engagement and retention from creating initial interest to graduation to employment through 'fun' projects in classes.

### DEAR Is Not Enough: Restructuring Independent Reading To Improve Reading For All At An Urban High School

Kate Spence, Fairleigh Dickinson University; Nancy Logozzo & Jenn Gunn, Hudson High School of Learning Technologies

This a research-based conversation about how modifying an independent reading course to blend explicit reading instruction increased urban high school students' literacy levels. Considering contextualized and ongoing PD focused on developing literacy-based communities of practice provide insights provides insights into supporting reading acceleration for all.

# **Session 2.8.6: Educational Leadership** Roundtable

Salon E - G

Facilitator: Elizabeth Brown, William Paterson University

#### Leadership Lessons Learned In Implementing A Formative Teacher Evaluation System

Heba Abdo, Rutgers University School System Improvement Project

Teacher evaluation scholarship has increased recently in response to research (Kane &Staiger, 2011; Weisberg et al., 2009) and federal policy (U.S. Department of Education, 2009). However, few studies give guidance about how to implement these systems. This work uses qualitative interviews to provide lessons learned about formative evaluation systems.

#### Re-Privileging The Privilege Walk: A Value Added Approach Towards Embracing Diversity

Elizabeth Brown & David Fuentes, William Paterson University

The intent of the study is to generate a shared sense around enhancing educators' preparation for teaching diverse students by helping educators to see racial, ethnic, and socioeconomic barriers, and then, to see past them. This re-privileged approach will assist privileged teachers in self-identifying their similarities with diverse students.

#### Implementing A Collaborative Constructivist Approach In Teacher Education

Elizabeth Brown & Julie Rosenthal, William Paterson University; Anissa Conyers, Paterson School 12

The Collaborative Constructivist Approach allows teacher candidates to co-plan, critique, implement, evaluate, and reflect on constructivist teaching activities during their elementary social studies and science methods courses. The approach has helped participating teacher educators to bridge the

theory-practice divide by supporting TCs' co-construction of new understandings of constructivist teaching.

#### **Preparing Impact Ready Instructional School Leaders**

Olcay Yavuz, SCSU; Gulcin Gulmez, ODTU

In an effort to prepare high quality urban school leaders, this study examined the factors that might affect urban educators' readiness for performing instructional leadership activities. The findings revealed that participating in an educational leadership training program is the only significant factor to improve future school leaders' instructional leadership readiness.

### Wednesday, October 18, 4:45-5:30

# **Graduate Student Issues Committee Social (4:45 - 5:30pm)**Social Merritt Foyer

Take an opportunity to grab a snack and connect with other NERA graduate students in this social session sponsored by the GSIC.

#### Wednesday, October 18, 5:30-8:00

#### Dinner & Invited Keynote (5:30 - 8:00pm)

Plenary Session Grand Ballroom

#### From 'Fake News' to Teachable Moments

Virginia Edwards

Politicians and pundits, policy proponents and detractors, they all have been long guilty of spin, misinformation, and outright lying. Today, the internet and social media have made it far easier for powerful entities to directly and quickly spread false or misleading information far and wide. Does K-12 education have an antidote? Whether called media literacy, digital literacy, or metaliteracy, schools must give students the tools and training they need to sort fact from fiction in the digital age.

#### **Speaker Bio:**

Virginia, "Ginny", a communications and organizational-development consultant, was the CEO of Editorial Projects in Education, the nonprofit corporation that publishes Education Week and edweek.org, from March 1997 until she stepped down in July 2016. In the face of dramatic media disruption, she is credited with energetically evolving EPE and Ed Week over the years from a print-only publication to a thriving, financially successful 24/7 digital news operation.

Ginny also served as the editor-in-chief of Education Week – the premier "news outlet of record" for pre-collegiate education in the United States – from 1989-2016. The newspaper, published 37 times a year, is read by more than 200,000 subscribers and "pass-along" readers. For 20 years, she was also the editor of edweek.org, which reaches an audience of more than 1.6 million registered users, and, in 2015, she launched the Education Week Video unit to produce segments for the PBS NewsHour and other broadcast partners as well as digital video and other multimedia content for edweek.org and other online platforms.

Before joining EPE, Ginny worked for two years for the Carnegie Foundation for the Advancement of Teaching and, for the nearly 10 years before that, was an editor and reporter at The Courier-Journal in Louisville, Ky.

A frequent speaker on education-policy, media, and organizational-development issues, Ginny has served on the boards of several nonprofit organizations, including, currently, TeachingWorks at the University of Michigan and the Omicron Delta Kappa Foundation, which supports programs to honor and develop collegiate student leaders.

### Wednesday, October 18, 8:00-11:00

# NERA Welcome Reception Sponsored by Stata (8:00 - 11:00pm) Social Merritt North / South

Meet and mingle with your NERA colleagues at our welcome reception, featuring Latin guitarist Rich Barry.

Breakfast (7:00-8:15)

**Grand Ballroom** 

# Session 3.1: Technology-Enhanced Items: A Helpful Innovation or the Rube Goldberg of Assessment Design?

Symposium Augusta

Chair: Peter Swerdzewski, Curriculum Associates

Discussants: Steve Sireci, University of Massachusetts – Amherst

Scott Marion, National Center for the Improvement of Educational Assessment

Technology-enhanced items are alternately heralded as key to the next generation of innovative assessment and derided as unnecessarily complicated and not worthy of the investment. So, which is it? We will explore the benefits and drawbacks of TEIs and future areas of exploration for these critical item types.

#### A Proposal For A Taxonomy Of Item Features

Kristen Huff, Curriculum Associates

In this presentation, the presenter will make the case that the field of assessment needs more research to map the landscape of item features in the context of TEIs, and a more formal framework in which to start to build a theory of item design. Specifically, the presenter will address the key question, "how do we evaluate the utility of item features with regard to enhancing our ability to measure the constructs of interest with greater fidelity?" Likewise, the presenter will explore how we in the field of assessment may evaluate whether item features that are added to increase student engagement are working as intended without adding construct-irrelevant variance. Adding to the complexity of this topic are guidelines for universal design and the need to have comparability across an ever-increasing variety of browsers and devices.

### TEIs For Classroom Vs. Summative Assessment: Different Design And/Or Psychometric Parameters? Dan Mix, Curriculum Associates

Recognizing that item design specifications often vary for traditional paper-and-pencil classroom assessment items versus summative assessment items, what specification differences do assessment developers need to consider for TEIs when used in classroom-based versus summative assessment contexts? Are there different considerations in item design with regards to the purpose of providing the best instructional recommendations versus the purpose of most reliably classifying students into achievement levels? This session will explore various TEI design specifications that may lend themselves to classroom-based educational assessment and the presenter will contrast these design specifications with the design and psychometric parameters that assessment developers may want to consider for large-scale assessment TEIs.

#### **Developing Scoring Keys For TEIs**

Shuqin Tao, Curriculum Associates

By their very nature, TEIs have unique complexities that force us as assessment practitioners to revisit our assumptions about scoring models. Many TEIs, for example, are designed to assess high-order thinking skills that are traditionally assessed by constructed-response items, which calls for holistic evaluation of human raters. What are appropriate ways to score these complex item types to allow for both valid inferences about student learning and immediate score reporting? This presentation will explore various empirical approaches to developing defensible scoring keys for TEIs and will share key considerations for TEI scoring key development.

# Session 3.2: The Diagnostic Rating System (DRS): A New Performance Assessment Rating System Applied to Ethical Reasoning Symposium Boston

Chair & Discussant: Bo Bashkov, American Board of Internal Medicine

Ideally, raters use the same cognitive processes to arrive at scores. This is a strong assumption that is rarely met. Thus, we developed a new rating method that seeks to align the cognitive scoring processes of raters. This symposium offers an overview of the new method and pilot study results.

#### The Diagnostic Rating System (DRS): Development And Evidence For Use

Nick Curtis & Allison Ames, James Madison University

When using rubrics, raters ideally progress through a series of questions to arrive at an appropriate score. These questions are often implicit and Think Aloud Protocol (TAP) results suggest these questions vary between trained raters. These TAP results provided the foundation for the Diagnostic Rating System (DRS). The DRS method makes these rater questions explicit, thus guiding the cognitive processes of raters and providing a key piece of validity evidence. In this paper, the authors describe the development of the DRS and provide preliminary generalizability theory results.

### The Diagnostic Rating System (DRS): A Rating Method To Facilitate Intentional Programmatic Changes Madison Holtzman, *James Madison University*

The DRS allows researchers to obtain data on how raters answer each question. This data provides key information for why students are receiving a particular score, thus providing insight into what students do and do not know. This information is helpful for making informed programmatic changes to curricula. In this paper, authors describe how the DRS promotes use of assessment results.

#### **IRTree Models: Application To Rater Response Processes**

Allison Ames, Aaron Myers, & Brian Leventhal, James Madison University

IRTrees are response tree models that describe and model the response process as a sequential process of going through the tree to its end nodes. This mimics the DRS series of yes-no questions that scorers use. In this paper, authors describe the fit and interpretation of the rubric and DRS methods, providing further validity evidence for the DRS.

#### Session 3.3: Research on Diverse Learners

Paper Session Concord

Chair: Madji Fall, Rowan University

Discussant: Lynn Shelley, Westfield State University

#### **Immigrant Student's College Choice: A Proposed Conceptual Framework**

Lisa Wisniewski, Goodwin College

The purpose of this study is to examine the reports of first generation Polish immigrants regarding their United States college entry process. This study employed an exploratory phenomenological oral history approach with first generation Polish immigrants. Research participants included 9 first generation immigrants from Poland.

#### **Affirming Culture In Pre-College Programs**

Ashley Carpenter, University of Massachusetts - Amherst

Many pre-college programs solely engage students with aspects of academic achievement, however, it is critical that these programs are holistic in providing support. The purpose of this study is to investigate the experiences of students who participated in a pre-college program that focused on cultural capital and academic skills.

#### A Program Evaluation Of An ELL Program In An Urban Elementary School

Casey Cummings, Stamford Public Schools; Thomas Christ, University of Bridgeport

This program evaluation was conducted in two sequential phases to show the impact of an English Language Learner Program on instruction at an urban elementary school. The program involved three components: professional development on ELL instructional strategies, mandated weekly support, and monitoring instruction using electronic software for data collection.

### Increasing Reading Comprehension Skills Through myON Reading And Cultural Relevant Texts Through Socratic Seminars

Valrie Noel, University of Bridgeport

Many studies indicate that there is an achievement gap between African American students and Whites students. This action research study aims to use myON reading and cultural relevant texts through Socratic seminars to increase the reading comprehension skills of African American male students in an urban setting.

### Session 3.4: Quantitative Methods in Education

Paper Session Hartford

Chair: Mariola Moeyaert, University at Albany, SUNY

Discussant: Pamela Kaliski, College Board

#### A User Friendly Effect Size: When Normality Matters

Tom Waterbury & Christine Demars, James Madison University

This study is focused on an easily interpretable statistical effect size called pi, which represents the percent of people in one group who are above the mean of another group. A simulation study showed estimates of pi were sensitive to minor violations of normality.

### Effect Of Small Sample Size On Parameter Estimation In A 3-Level Organizational Framework: Simulation Study Using M-Plus

Debrishi Bose, University of Connecticut

This simulation study compares the complexities involved with parameter estimation for small sample sizes in a three level organizational framework using various methods (MLE/Bayes etc). Minimum sample size requirements in terms of unbiased estimation of fixed effects, variance components and standard errors were determined and recommendations made.

### Cluster Analysis Of Students' Interactions With Automated Feedback: An Exploratory Study Mengxiao Zhu & Ou Lydia Liu, Educational Testing Service; Hee-Sun Lee, Concord Consortium

We analyze log data to examine the granularity of students' interactions with immediate feedback empowered by automated scoring techniques during scientific argumentation construction. Analysis results indicated that (1) students read the automated feedback and made revisions and (2) different patterns in students' engagement with activity sequences identified through cluster analysis.

### Similarity In TIMSS 2015 Participants' Eighth Grade Science Curricula: A Cluster Analysis Katherine Reynolds, *Boston College*

This research uses cluster analysis to examine similarities in eighth grade science curricula for countries participating in the 2015 administration of the Trends in International Mathematics and Science Study. Patterns in science content coverage are also considered in conjunction with countries' average science scale scores.

#### A Multilevel Modeling Of Single-Case Data Tutorial For The Applied Researcher

Emily Rodabaugh & Mariola Moeyaert, University at Albany, SUNY

In order to introduce applied single-case data researchers to multilevel meta-analysis techniques, an empirical illustration of two- and three-level models is discussed using previous study data analyzing the influence of choice interventions on problem behaviors. The results of the current analysis are compared to the original studies.

### Session 3.5: Educational Policy and School Reform

Paper Session Montpelier

Chair: Kabba E. Colley, William Paterson University
Discussant: Bridget Thomas, George Mason University

### Teaching Kids To Care: A Needs-Based Intervention To Increase Ethical Sensitivity In Schools Rebecca Friedman, *Johns Hopkins University*

Character education programming is gaining popularity as one possible way to raise an intelligent and caring generation of students. However, many schools fail to allocate time, money, and resources to such initiatives. This study examined the impact of an ethical sensitivity intervention in the school setting.

### Are After School Programs An Effective Academic Intervention For Students Attending High Poverty Schools?

Jennifer Scarpati, University of New Hampshire

Do students who attend 21st Century after school programs perform better on standardized assessments in Reading and Math than their non-participating peers? Do results differ based on the number of days or years a student attends the program? Do different demographic groups experience different results?

### Achieving Educational Opportunity: Teachers' Perspectives On Their Opportunities To Teach Sousan Arafeh & Theresa Marchant-Shapiro, Southern Connecticut State University

Since the 1970s, opportunity-to-learn (OTL) has underpinned national and international equity efforts through educational measurement, assessment, and standards and school reform. This paper reports on an exploratory qualitative study that asked teachers about their 'opportunity-to-teach' (OTT) as a way to advance education theory, policy, and practice in service of equity.

# **Session 3.6: Teacher Perspectives**Paper Session

Providence

Chair & Discussant: Heba Abdo, Rutgers

### What's Important? West African Educators Write About "What's Important" In Their Lives Peter McDermott, *Pace University*; Nancy Allen, *Independent Consultant*

This inquiry project occurred in Africa and investigated the use of mentor texts to teach writing. Results reveal how mentor texts can be used in global settings, what Sierra Leone people feel is important in their lives, and it provides one example of a data analysis tool to assess writing.

#### **Curriculum Behind Bars: Cultural Politics And Curriculum To Prison Pipeline**

Joao Paraskeva, Elizabeth Janson, & Dominique Branco, University of Massachusetts - Dartmouth

This study intends to examine the relevancy and impact of schooling and technology in the South Coast from the perspective of the inmates at the Bristol County House of Correction. We will analyze BCHC inmates' experiences with education in order to evaluate how their experiences impacted their social trajectory.

### The Role Of Ego Threat In Professional Growth, Fulfilling The Intention Of The Seed Model Jess Gregory, Southern Connecticut State University

The System of Educator Evaluation and Development (SEED) model embraces best practices; ego threat can undermine the goals of SEED, and prevent meaningful professional growth to supports student learning. Interview data from teachers and administrators provides some evidence of ego threat and the impacts on evaluation with goal setting models.

Teaching After Tragedy: Experiences, Challenges, And Support Needs Of Elementary School Teachers Vickie Claflin & Angela Girdley, Capella University; Amy Sedivy-Benton, University of Arkansas Little Rock

In small town America where the community is considered like family, violence disrupts the status quo. Crisis intervention intentionally plans counseling for students, yet small children turn to the teachers for emotional support. This phenomenological study focused on the lived experiences, challenges, and support needs of the teachers.

# Session 3.7: Using R to Automatically Generate Technical, Research, and Score Reports

Workshop Merritt North

Facilitators: Andrew Jones, American Board of Surgery; Carl Setzer, AICPA

Organizations and researchers often create reports and manuscripts by manually copying information from statistical software output into a document. Such processes are inefficient and are susceptible to error. The purpose of this session is to demonstrate R's capability to generate automated reports for technical documentation, research manuscripts, and examinee performance reports. We will utilize the statistical software R, through R-Studio, to demonstrate report generation using R Markdown with KnitR and LaTeX. Examples of reports that participants will be able to generate include research manuscripts, technical reports, and examinee score reports.

# Session 3.8: The Teachlive Lab: Using Avatars in Mixed Reality Simulations for Teacher Candidates and Professional Educators Workshop Merritt South

Facilitators: Jody Piro, Marcia Delcourt, & Catherine O'Callaghan, Western Connecticut State University; Wes Desantis, Ridgefield High School; Erik Gundel, Greenwich High School

Immerse yourself in a virtual world! Experience or participate in a LIVE demonstration of Western Connecticut State University's (WCSU) TeachLivE Lab. The Lab is a mixed-reality environment where preservice teachers interact with avatars, Sean, Ed, Maria, CJ and Kevin, who are students in a virtual middle level or high school classroom. In another scenario, administrators-in-training converse with an adult-avatar in real time to practice debriefing skills after a classroom observation. Actual and virtual worlds combine to give users a sense of immersion and presence.

#### Session 4.1: Getting Ready to Publish

GSIC Session Augusta

Moderators: Elizabeth Pyburn, James Madison University

Kisong Kim, St. John's University

In this session, participants will have an opportunity to discuss the preparation of manuscripts for publishing. An experienced professional will join us as a guest speaker to present their own lessons learned along the way and to provide participants an opportunity to ask questions.

#### Panelists:

Sara Finney, James Madison University

Kurt Geisinger, Buros Center for Testing

Steve Sireci, University of Massachusetts - Amherst

Betsy McCoach, University of Connecticut

Matthew Madison, University of California Los Angeles

#### Session 4.2: Technology Issues in Education

Paper Session Concord

Chair: Vickie Claflin, Capella University

Discussant: Sudha Swaminathan, Eastern Connecticut State University

### Adoption Of Personal Safety Devices In Higher Education: User Acceptance Prediction Using The UTAUT

Dawit Demissie & Daniel Alemu, The Sage Colleges

By utilizing the Unified Theory of Acceptance and Use of Technology (UTAUT) model as a theoretical framework, this research has investigated user acceptance of handheld personal safety devices adopted by several higher education institutions. The result provides college campuses with data to craft a student safety strategy and training plan.

### Stop-Frame Animation Publishing Parties: Using Technology To Motivate Writers And Expand Audiences

Elizabeth Brown, William Paterson University; Phyllis Adams, Paterson School 12

Our study explores how one technology, stop frame animation software, supplements a literacy curriculum and honors' educators standards-based objectives without jeopardizing students' voices and creativity. The Stop-Frame Animation Project involved teacher candidates facilitating first graders to write, design and produce small moment films to share electronically with their families.

### A Comparison Of Two Reading Fluency Interventions Using A Randomized Experimental Research Design

Caroline Shackett & Amanda Marcotte, University of Massachusetts Amherst

It is important to explore the relationship between delivery method of interventions and outcomes. This study examined whether the delivery method of a reading fluency intervention (traditional vs. computer-led) made a difference in increasing oral reading fluency. Students in the computerized group had significantly higher gain scores and implementation fidelity.

### Barriers To Teachers' Use Of Available Technology To The Maximum Potential In Elementary ELA Classrooms

Rene Parmar, St. John's University

Classroom observations, teacher surveys, and teacher interviews from 12 classrooms were used to investigate how elementary teachers incorporated available technology into their ELA instruction. Analyses revealed that expectations of students, beliefs about management, construction of published resources, and teachers' skills all factored into the observed underutilization of available technology resources.

### Session 4.3: Test Design and Development

Paper Session Hartford

Chair: Alejandra Garcia, University of Massachusetts - Amherst

Discussant: Jade Lee, University of New Hampshire

#### **Cross-Cultural Scale Category Use**

Guher Gorgun & Kimberly Colvin, University at Albany, SUNY

The purpose of this study is to evaluate how respondents from different cultures make use of scale categories. We administered a series of scales measuring self-esteem, self-efficacy, and life satisfaction. Respondents were recruited using Mechanical Turk. We compared the reliabilities, total scores, correlations among measures, and dimensionality across groups.

### Self-Efficacy, Creativity, And Persistence In First Year Engineering Students: A Validation Study Andrew Cochran, *University of Connecticut*

This Study was designed to validate a measure of the proposed title. Three constructs were assumed given the theoretical background. Exploratory Factor Analysis was conducted on 74 complete responses yielding four distinct factors. Reliability analysis was also conducted yielding appropriate alphas for three of the four factors in the study.

#### **Neglected Validities: Evaluating Preschool Assessment Against The Standards**

Katherine Barghaus, Kathy Buek, & John Fantuzzo, *University of Pennslyvania*; Dominic Gullo, *Drexel University* 

According to the Standards for Educational and Psychological Testing (AERA, APA & NCME, 2014), test developers should investigate and document information related to five key aspects of validity. The present study examines the prevalence of reporting of these five types validity information in over 400 widely used preschool assessments.

#### Session 4.4: Postsecondary Education

Paper Session Montpelier

Chair: Kurt Eisele, Wilkes University

Discussant: Linda Paslov, University of Bridgeport

### Achieving Self-Actualization In Statistics: Applying Maslow's Hierarchy Of Needs To The Statistics Classroom

Sarah Ferguson & Mary Beth Walpole, Rowan University

This paper explores the literature on effective statistics education strategies through the lens of learning theory. Using Maslow's Hierarchy of Needs as a framework, recommendations are made for statistics course design to effectively meet students' needs. Recommendations are presented in a Statistics Self-Actualization model and future directions are presented.

### The Test Mode Effect: Impact On The HEIghten® Quantitative Literacy Assessment In China Zhitong Yang, Lin Gu, & Lydia Liu, Educational Testing Service

To study test mode effects, college students from three Chinese universities were randomly assigned to either the paper-and-pencil or computer delivery mode and took the HEIghten® Quantitative Literacy assessment. The study reports mode effects on test performance, psychometric qualities of the test items, response patterns, and test user perceptions.

### Using Analytics For Mission-Driven Capacity Management And Cost-Containment In Small Colleges Lidija Polutnik, Megan Way, & Jessica Simon, Babson College

College administrators face simultaneous pressures to contain costs, enhance their educational mission, and improve educational outcomes. We introduce an integrated financial model to evaluate cost containment measures that support the educational mission, while facilitating stakeholder collaboration and data driven decision-making. We show how business modelling enhances decision-making under different assumptions.

### **Examining The Ways In Which Students With Disabilities Perceive Costs Within Higher Education**Genia Bettencourt, Reilly Kopp, & Meghan Henningson, *University of Massachusetts Amherst*

Students with disabilities make up 11% of undergraduate postsecondary education, but substantial gaps exist regarding how institutions support their experiences. Through constructivist narrative inquiry, this study shares the ways in which thirteen students with disabilities perceived the financial, social, and emotional costs of disability within higher education.

#### Hybrid Program Design And Delivery: The Adult Learner Perspective

Christine Stevens, New England Institute of Technology

Higher education institutions craft hybrid courses and programs for working adults to leverage online delivery while retaining face-to-face engagement. This multiphase, qualitative study explored how adult learners experience a hybrid degree program. Results may be used to inform improvements to existing hybrid program delivery and development of new hybrid designs.

#### Session 4.5 Educational Leadership

Paper Session Providence

Chair: Jess Gregory, Southern Connecticut State University
Discussant: Charles Britton, Sacred Heart University

### Making Meaning Of Middle School Reading Intervention For Students And Teachers: Team Teaching Action Research

Jennifer Sinal Swingler, University of Bridgeport

When considering the design and implementation of literacy intervention at the secondary level, context and design matter. One researcher-administrator presents her action research on the concept of a team taught push in intervention model that redefines methods of instruction, curriculum, and assessment while meeting the needs of adolescent readers

#### Leadership Practices That Support The Use Of Praise In Fourteen NJ Charter Schools

Christian Mathews, Relay Graduate School of Education; Heba Abdo, Rutgers Unversity

In previous studies, the authors found that as grade level increases, teachers are less likely to utilize academic and behavioral praise. This study utilizes mixed methods to explore school-level factors that may contribute to more use of high-level praise in the classroom.

### How Does Network Improvement Science (NIS) Impact The Recruitment And Retention Of Black And Latino Male Teachers?

Kabba E. Colley, David Fuentes, James E. Alford, & Anthony Bundy, William Paterson University

The purpose of this study is to answer the following question: How does network improvement science (NIS) impact the recruitment and retention of Black and Latino male teachers into the teaching profession? This study is situated within the broader context of the national debate on diversify the teaching workforce.

#### **Itinerant Curriculum Theory**

Joao Paraskeva, University of Massachusetts - Dartmouth

This paper examines major tenets of the Itinerant Curriculum Theory (ICT). Frustrated, like so many of us, with ambiguities and gaps within the vast and complex critical and post-structural terrains, the paper argues for alternative ways of thinking about curriculum alternatives' that respect and address the worlds epistemological diversity.

#### Thursday, October 19, 11:30-1:30

#### **Lunch & Keynote Panel (11:30 - 1:30)**

Plenary Session Grand Ballroom

Making Sense of the School Choice Debate: A Nuanced Approach through Varied Perspectives

Panelists: Preston Green, University of Connecticut

Kathryn McDermott, University of Massachusetts Amherst

Casey D. Cobb, University of Connecticut

Moderator: Kristen Huff, Curriculum Associates

The debate on school choice programs has been reignited with the appointment of Betsy DeVos as Secretary of Education. Join our three panelists as they discuss the multifaced and nuanicsed nature of school choice. This panel will begin with a brief introduction from each panelists regarding their area of focus within school choice, followed by a moderated discussion. The session will close with an audience question and answer session.

#### **Speaker Bios:**

Preston Green is the John and Carla Klein Professor of Urban Education at the University of Connecticut's Neag School of Education. He is also a professor of educational leadership and law at the University of Connecticut. At the University of Connecticut, Dr. Green helped develop the UCAPP Law Program, which enables participants to obtain a law degree and school administrator certification at the same time. Dr. Green also developed the School Law Online Graduate Certificate, a 12-credit online program that helps educators, administrators and policy makers understand the legal dimension of K-12 education. Before coming to the University of Connecticut, he was the Harry Lawrence Batschelet II Chair Professor of Educational Administration at Penn State, where he was also a professor of education and law and the program coordinator of Penn State's educational leadership program. In addition, Dr. Green was the creator of Penn State's joint degree program in law and education. Further, he ran the Law and Education Institute at Penn State, a professional development program that teaches, administrators, and attorneys about educational law. Dr. Green has written five books and numerous articles and book chapters pertaining to educational law. He primarily focuses on the legal and policy issues pertaining to educational access and school choice.

**Kathryn McDermott** conducts research on how federal, state, and local education policy affects educational equity. In 2015, she co-edited a special issue of the Russell Sage Foundation Journal of the Social Sciences, on the fifty-year history of how the federal Elementary and Secondary Education Act has changed U.S. public education. Her work on state policy has focused on the connections among accountability, standardized testing, and equity. It has been published in multiple journals and in the 2011 book High Stakes Reform: The Politics of Educational Accountability. With funding from the Spencer Foundation, she has researched the ways in which local politics often lead to school choice policies that do not make equity a priority. This research has been published in the American Educational Research Journal, Educational Policy, and Education Policy Analysis Archives. She was awarded a Spencer Foundation Midcareer Grant in 2016.

**Casey D. Cobb** is the Neag Endowed Professor of Educational Policy at the Neag School of Education at the University of Connecticut. His current research interests include policies on school choice, accountability, and school reform, where he examines the implications for equity and educational opportunity. Dr. Cobb is Editor of Educational Administration Quarterly, a ranked Sage and UCEA journal. He is co-author of Fundamentals of Statistical Reasoning in Education (Wiley/Jossey Bass, 4th

#### Thursday, October 19, 11:30-1:30

ed.) and Leading dynamic schools (Corwin Press). Dr. Cobb has published in such journals as Educational Evaluation and Policy Analysis, Educational Policy, Education and Urban Society, Educational Leadership, and the Peabody Journal of Education. Dr. Cobb is a National Education Policy Center Fellow and member of the Research Advisory Panel for the National Coalition on School Diversity. He is an elected member of the Executive Committee for the University Council for Educational Administration (UCEA). He holds an A.B. from Harvard University and a Ph.D. from Arizona State University.

#### Thursday, October 19, 1:45-3:00

#### Session 5.1: Poster Session

#### Poster Forum Merritt North / South

#### **Examining Occupational Therapists As Potential Special Education Leaders**

Joan Sauvigne-Kirsch, Western New England University

Occupational therapists are restricted from formal education leadership roles since most SDEs don't credential OTs. This qualitative research explored policies and skills needed. This research indicates that OTs are well suited for leadership positions, but will need to advocate through their states to open opportunities for training and credentialing.

### **Exploring The Diagnostic Capacity Of A Standardize Reading Comprehension Test For Elementary School Students**

Xiaoli Jiang, Penn State University

The study applied cognitive diagnostic modeling approach to a standardized reading comprehension test taken by fourth and fifth grade students in the US. The results were expected to provide diagnostic information regarding students' strengths and weaknesses in reading so that teachers can take actions to further improve their reading ability.

#### **Teacher Stress Assessment: An Instrument Validation Study**

Kevin Agnello & Aarti Bellara, University of Connecticut

The purpose of this study was to develop an instrument to measure teachers' job stress and collect preliminary evidence of validity and reliability. Interpretations of the data regarded potential usefulness for measuring the stress levels of practicing teachers.

#### APA All The Way: Effects Of An Institutional Conversion To An All-APA Model

Randy Laist, Goodwin College

This study analyzes the impact of a policy decision on the part of an institution of higher education to convert to an all-APA model for all student writing assignments across all the college's departments. This analysis suggests that this change alone was not sufficient to affect student outcomes.

### Gestures As Representations Of Student Thinking And Learning Science Concepts In Engineering Design Investigations

Christine McGrail, University of Massachusetts

This study explores students' use of spontaneous gestures during engineering design explanations. Then, it applies a multi-modal rubric, which includes gestures, to evaluate student understanding of key science concepts which underpin engineering investigations. Findings indicate that inclusion of student's gestures in assessment improved student scores.

### An Exploratory Factor Analysis for the Instrument "Self-Regulation in Pre-Service and Beginning Teachers"

Jessica Lototski & Aarti Bellara, University of Connecticut

This study presents the initial development and pilot results of a survey assessing novice teachers' self-regulatory skills. The researchers employed a mixed-method content validation process. Exploratory factor analysis and reliability results reported a two factor structure of the items. Steps for further study and validation were outlined.

#### Thursday, October 19, 1:45-3:00

#### Moving Forward: An Intersectional Autoethnography of a Ph.D. Program in Education

Madji Fall, Daniel Tulino, Sharada Krishnamurthy, & Stephanie Lezotte, Rowan University

This intersectional autoethnography examines the factors, processes and perspectives that enable or block the individual and collective journeys of the first student cohort in a doctoral program in education. The findings illustrate how learning and change occur at different levels of the ecological system leading to growth and evolution.

#### Impact Of Asian Martial Arts Practices On Positive Youth Development

Jun Cho, University of Connecticut

To demonstrate the positive impact of Asian martial arts practices on youth development, this study will conduct a survey with participants of 'Taekwondo', Korean martial arts as a treatment group by using Adolescent Self-Regulatory Inventory as the measurement tool. Two comparison groups will be assigned to address the internal validity.

#### **Interpreting and Relabeling Mixture IRT Distributions**

Zachary Collier, University of Florida; Tanesia Beverly, University of Connecticut

This study compares popular methods used to determine class membership in mixture item response theory models. Three class membership interpretation approaches and a post hoc label switching algorithm will be applied to an empirical dataset. Measures of accuracy will be provided for the post hoc algorithm.

#### An Examination of Career and Educational Outcomes among Paid Interns, Unpaid Interns, and Non-Interns

Olivia Cortellini & Jonathan Lehrfeld, Council for Aid to Education

The purpose of this study is to examine differences in outcomes between paid interns, unpaid interns, and non-interns. Specifically, this study examines differences in salary and employment status one year post-graduation, as well as students' exam scores just prior to graduation.

#### Big Data and Open Data: How Emerging Data Perspectives Influence Education

Bridget Thomas, George Mason University

Big data refers to very large and complex datasets, while open data is a term used to describe data that is accessible to the general public. This study investigated how these concepts have begun to influence education and educational research, and the subsequent responsibility of researchers to communicate them clearly.

#### Emerging from the Arena: One University's Experience with Studio Based Physics Education

Aynsley Diamond & Diego Valente, University of Connecticut

Historically, the University of Connecticut's approach to physics education has followed a combination of sequenced lectures and laboratory sessions. This presentation outlines how educational technology, smaller course enrollment, and innovative studio design will revolutionize the university's approach to physics education.

#### Thursday, October 19, 1:45-3:00

### National vs. State Assessment: Are States Preparing Students to Excel at a National Level? Colleen Boyle, *University of Massachusetts Amherst*

This poster will examine the discrepancies between students with disabilities and their peers using extant state and national achievement data. Proficiency rates from state and national assessments will be displayed, with a discussion of the variations in standard setting between states.

### Significance or Non-significance?: The Relationship Between Adult Creative Problem-Solving Style and Fluid Reasoning

Leeann Trimarchi, Fordham University

This paper explored adults' creative problem-solving styles and cognitive functioning. Well-defined and moderate style preferences on the VIEW were compared to performance on WAIS-IV fluid reasoning tasks. Findings showed that problem-solving style did not correlate with fluid reasoning, rather, the strength of one's style was significantly associated.;

#### Impact of Parent/Teacher Involvement on Kindergarten Reading Skills

Tysha Resnick, University of Central Florida

Parent / teacher involvement in the academic strides of children is of great benefit to all involved, but especially as young children endeavor to learn reading skills. These are skills they will take with them throughout their academic careers. Children fare better when parents and teachers are more involved.

### **Elementary STEAM Project: Helping Teachers implement in the K-8 classroom**Nancy DeJarnette, *University of Bridgeport*

This project addresses the need for STEAM (Science, Technology, Engineering, Arts, and Math) initiatives in the elementary school. This ethnographic research focuses on observing the impact of professional development and consistent support on elementary teachers' self-efficacy, dispositions, and rate of implementation of STEAM content within their curriculum.

# Session 5.2: What Are They Thinking? What Are We Getting? Evaluating Test Questions through Response Process Research

Symposium Augusta

Chair: April Zenisky, University of Massachusetts Amherst

Discussant: Michael Jodoin, National Board of Medical Examiners

Examinee responses to test questions are informative not only for computing test scores, but also for developing understanding of what is actually being elicited as a source of validity evidence. This symposium shares results from three responses process studies, highlighting implications for both measurement methods and test interpretation and use.

#### **Evaluation Of Cognitive Skills Used By Adult Learners For Mathematics Test Items**

Sandra Botha & Ella Banda, University of Massachussetts - Amherst

Many educational tests are designed to measure both content knowledge and examinees' different levels of cognitive skills. The Standards for Educational and Psychological Testing (AERA, APA, & NCME, 2014) state that cognitive processes engaged by examinees can provide validity evidence based on response processes i.e. "the fit between the construct and the detailed nature of the response actually engaged by the examinee" (p15). In this study, we used Think Aloud Protocols (TAPs) to evaluate the cognitive skills that adult English learners (ELs) and non-English learners (non-ELs) used to answer items from the Massachusetts Adult Proficiency Test (MAPT) for Mathematics. Responses to a 5 item math instrument were collected from 10 learners from an Adult learning center. We compared the cognitive skills observed to those the items were intended to measure. Initial findings showed a 100% match for some items and no match for others. Achievement gaps between ELs and non-ELs on MAPT is also of interest, and so differences between the two groups in terms of cognitive processes will be discussed.

#### Synthesizing Information Gathered Through Student Responses And Log Analysis

Hongyu Diao & Alejandra Garcia, University of Massachussetts - Amherst

Log analyses can provide a lot of useful assessment information such as the time spent on each item, the actions taken within each item, and whether the student correctly answered each item. These logs, however, cannot provide any information as to why a student answered as they did nor how the student felt when interacting with an item. Student reactions while completing or directly after completing an assessment can fill in the gaps left by the assessment logs. In this study, we use the insight provided by directly interacting with students attempting a pilot assessment comprised of only technology enhanced items (TEIs) in combination with the information provided in a log analysis to determine: (1) which interaction types worked well for an adult basic education (ABE) audience, (2) which interaction types did not work well for the audience, (3) why those interaction types worked or did not work, and therefore (4) what steps we can take next to improve TEIs specifically for this audience. Initial observations have identified interaction obstacles due to a lack of familiarity with item formats, low computer proficiency, and individual disabilities in the participant sample.

#### An Unexpected Interaction Revealed By Student Responses And Observations

Alejandra Garcia, University of Massachussetts - Amherst

The University of Massachusetts- Amherst is currently considering the inclusion of TEIs in the MAPT math and reading assessments. To that end, we have conducted a pilot study of ABE students from six different learning centers across the state of Massachusetts completing the TEI assessment. When designing the pilot study, we identified information gathering through log analyses, through observations of students interacting with the assessment, and through interviews with the students after completing the assessment. What we discovered through our observations and interviews is that this population is highly reliant on their teachers. This paper discusses the roles that teachers played in assisting students with understanding the assessment, managing students' emotions/anxieties, and providing context to student responses during interviews. The interaction between students and their teachers in the ABE context has highlighted the critical part these teachers must play in the integration and adoption of TEIs if this new assessment format (or any other new format) is to succeed.

# **Session 5.3: Games and Simulations in Education**Paper Session

Boston

Chair: Sousan Arafeh, Southern Connecticut State University Discussant: Ali Soken, University of Massachusetts - Amherst

#### More Than Test Scores: Process Data In NAEP Game-Based Assessment

Jie Gao, Educational Testing Service

This paper investigates one of the game-based tasks in the TEL assessment in NAEP, on a large-scale national representative sample. The analyses of process data and its relation to performance will 1) reveal strategy clusters among students, 2) show subgroup differences, 3) examines confidence and how it relates to certain behaviors.

### Player Reflection, Theory Formation And Revision In A Game-Based Assessment Environment Delano Hebert, Educational Testing Service

This study investigates how player performance in a game-based assessment environment can be explained by differences in their reflection throughout gameplay. Participants interacted with characters representing a culture and received feedback which they used to make an induction about this culture. Think-alouds were analyzed using a rubric to score reflection.

### Playing With Technology: More Opportunities Than Challenges For Early Childhood Sudha Swaminathan & Jeffrey Trawick-Smith, Eastern Connecticut State University

We provide a synthesis of our research wth young children's use of educational technology particularly within the context of a play-based curriculum. We outline the opportunities technology-infused play affords for creative, constructive thinking and illustrate with rich descriptions.

### Session 5.4: Engaging Diverse Science Students Through Note Taking, Modeling, And Mathematics Enrichment

Symposium Concord

Presenters: Gerald Ardito, Pace University School of Education
Joshua Paris, Pace High School
Irene Moon, Pace High School
Sabrina Robin, Pace High School
Margarita Kraynova, Pace High School

This symposium details the teacher inquiry work of four high school science teachers in association with a science teacher educator in an urban high school who developed innovative methods of engaging diverse science students through the use of interactive notebooks, physical modeling of life science concepts, and mathematics enrichment.

# **Session 5.5: Educational Measurement Applications**Paper Session

Hartford

Chair: Frank Padellaro, *University of Massachussetts - Amherst*Discussant: Jerome Clauser, *American Board of Internal Medicine* 

#### Fostering Greater Quality And Alignment Of Test Items: A New Item Analysis Method

Charles Secolsky, *Rockland Community College*; Thomas Judd, *United States Military Academy*; Peter Arvanites & Eric Magaram, *Rockland Community College*; Pietro Ciliberto, *Roselle Catholic High School* 

Point-biserials used to flag items with flaws, ambiguities, or miss-keys are ineffective when the test is measuring the wrong thing. Developed is a new item analysis method that combines point-biserials with SME ratings of item quality and alignment with test purpose, using regression for an algebra placement test

### Optimization Of Reliability Coefficients Under Constraint: Extension Of Iterative Methods To Multiple Designs

Frank Padellaro, University of Massachusetts Amherst; Robert Cook, Pacific Metrics

This paper is an extension of iterative algorithms created to optimize designs within a generalizability framework to maximize reliability under a budget constraint or minimize cost under a constraint of reliability.

### Score Reporting: Supporting Student Remediation On A High Stakes Licensure Examination

Amanda Clauser, *National Board of Medical Examiners*; Yooyoung Park & Francis Rick, *University of Massachusetts - Amherst* 

A multi-stage design and evaluation process was implemented to evaluate the usefulness of report prototypes for guiding remediation on a high-stakes credentialing examination. Ten medical students were asked to interpret content-area feedback to determine an examinee's strengths, weaknesses, and areas to study in preparation for a repeat attempt.

# Session 5.6: Educational Technology Demontrations of *iReady* and *Stata*Featured Session Montpelier/Providence

This session will feature two demonstrations of leading educational technologies: iReady and Stata

*iReady* is an adaptive and diagnostic assessment system developed by Curriculum Associates and is aligned with the common core standards for K-12 mathematics and reading instruction. Because *iReady* was built on a vertical scale, it also provides a measure of growth. *iReady* has received numerous awards and recognition and the demonstration of its capability is sure to be interesting for the NERA audience.

Stata is one of the top software packages for statistical analysis and is used by universities and in industry. In addition to providing all of the basic types of analyses (univariate, multivariate, and power analyses), Stata continues to add new features and models such as structural equation modeling, hierarchical linear modeling, Bayesian statistics, latent class analysis, and item response theory. Those interested in conducting statistical analyses in their research will find the Stata demonstration valuable.

# **Session 6.1: Interactions between Educational Technology, Media, & Society**Paper Session Boston

Chair: Dawit Demissie, Sage Colleges

Discussant: Vickie Claflin, Capella University

#### **Effect Of Technology Design On Social Creativity**

Natalie Duvall, Johns Hopkins University; Matthew Duvall, Drexel University

Previously, we evaluated the design of three fan-fiction websites (FanFiction, Quotev, and Wattpad) for social creativity. Extending this work, we examined the actual fiction published on these sites to understand the question: To what extent does the design of literacy-centric social media tools impact the creativity evident in user-created content?

### Social Media Vs. Basic Computer Skills: Which Technology Benefits Undergraduate Students? Jennifer Lawlor, Yale University

Through interviews and surveys to address the academic and business leaders' perceptions of 21st century skills, academic leaders spoke more often about the use of social media as technology whereas business leaders identified basic computer skills as the necessary technology skills for a student's future career success.

### The Story Of Unrest: Turkish People Emotional Responses To PISA 2015 Results On Twitter Ali Soken, *University of Massachusetts Amherst*

This study aims to understand Turkish people's reactions to PISA 2015 results of students. Twitter posts were collected (n=646) and grounded theory was utilized to develop a theory that explains the feelings of Turkish Twitter users. Data analysis showed that Turkish people have a considerable amount of depression.

#### The Ways Of Presenting PISA 2015 Results In Turkish Media

Ali Soken, University of Massachusetts Amherst

This study aims to examine the linguistic choices of Turkish media to present PISA 2015 results and utilizes Halliday's SFL theory. The findings show that Turkish mainstream media take a neutral stance to report the results without putting a critical standpoint.

#### **Cognitive Complexity Through Collaboration On Argumentative Student Blogs**

Maria Stasaitis & Patricia Mulcahy-Ernt, University of Bridgeport

This action research study examined the implementation of Integrated Writing as originally described by MacArthur, Graham & Schwartz (1993) in order to investigate the teacher's ability to refine instructional planning strategies that impact student cognitive complexity in argumentative writing through qualitative and quantitative data collected on a blogging site.

# **Session 6.2: Research on Educator Preparation Paper Session**

Concord

Chair & Discussant: Nancy DeJarnette, University of Bridgeport

#### Pre-Service Teachers' Use Of Technology During Fieldwork In Urban Classrooms

Salika Lawrence, Rupam Saran, Tabora Johnson, & Margareth Lafontant, Medgar Evers College, CUNY

This paper describes how one urban teacher preparation program used various technologies to help preservice teacher candidates build efficacy using digital tools for teaching and learning. The study highlights strategies for incorporating technology throughout a teacher education program; and identifies some pitfalls and benefits of using technology in K-16.

### Understanding The Effects Of Mixed Reality Simulation On Pre-Service Teacher Self-Efficacy Erik Gundel, Western Connecticut State University

The purpose of this presentation is to describe research aimed at understanding the self-efficacy beliefs of pre-service teachers participating in a curriculum enhanced by mixed reality simulation. The preliminary findings and significance will be provided. There will be time for discussion with participants regarding self-efficacy and mixed reality simulations.

### Digital Technology: Knowledge Of Pre-Service Teachers Within One Private Higher Education Institution

Kristin Rainville & Mary Yakimowski, Sacred Heart University

We sought to understand the impact of our digital technology curriculum and teaching. To do this, we analyzed data in teacher candidate technology portfolios and an employer survey with an eye toward discovering potential implications, opportunities, challenges for future shifts in curriculum, pedagogy, and research.

#### Targeted Interventions In Preparation For The Foundations Of Reading Test

Julia Kara-Soteriou & Linda Clark, Central Connecticut State University

This study discusses the implementation and impact of targeted interventions that were offered to teacher candidates who, based on the use of a predictive model, had been identified as at risk of failing the Foundations of Reading Test in their first attempt.

#### Improving Inquiry Skills Of Preservice Teachers Participating In Mixed Reality Simulations And Data-Driven Coaching

Wes DeSantis & Marcia Delcourt, Western Connecticut State University; Bruce Shore, McGill University; Jacob Greenwood, Darien Public Schools

Using a series of mixed reality simulations in a preservice education course, this research focuses on the skill of questioning used as a teaching tool, how that skill can be influenced by data driven feedback, and how coaching effects questioning outcomes. A mixed methods study was conducted.

#### Session 6.3: Qualitative Research in Education

Paper Session Hartford

Chair: Genia Bettencourt, University of Massachusetts - Amherst

Discussant: Francine Del Vecchio, Caldwell University

#### How Does This Survey Make You Feel? Using Think-Aloud Interviews For Scale Development

Elisabeth Pyburn & Deborah Bandalos, James Madison University

Seemingly minor item and scale characteristics may have a substantial impact on respondents' process of responding to survey items. In this study, we used think aloud interviews and focus groups to investigate several of these characteristics and assist in the development of a new scale.

#### **Using Mixed Methods In Grant Funded Special Education Research**

Thomas Christ, *University Of Bridgeport* 

Mixed-methods and action-research are viable options when conducting classroom and school-wide interventions, policy analysis, and grants. Action-research is applicable when the purpose is to solve localized, practical problems like PBIS and RTI which includes planning, acting, reflecting and modifying component interventions demonstrating causal explanations as described in this 1.4-Million grant.

#### Using Qualitative Data From The Public Domain: Lessons From The Humanities

Tricia Stewart, Western Connecticut State University; Mary Corey, SUNY Brockport

Our work contributes to the limited information on qualitative research utilizing online data by providing a framework for utilizing newspaper articles with a focus on rural school consolidation and school choice through examining content analysis based on lessons learned through the history methods in the humanities.

# Session 6.4: Ask Me Anything (AMA) with Dr. Kurt Geisinger Invited Interview Montpelier/Providence

Interviewee: Kurt Geisinger, Director of the Buros Center for Testing and Meierhenry Distinguished

University Professor at the University of Nebraska Interviewer: Thai Ong, James Madison University

Please join Thai Ong as he interviews the prolific Kurt Geisinger on the past, present, and future of educational technology along with a variety of other topics as decided by NERA members themselves. Questions for this session will be solicited through a social media app allowing for both pre-submitted and real-time discussion. Details on how to submit questions will be provided shortly before the conference begins.

Kurt F. Geisinger is currently Director of the Buros Center on Testing and W. C. Meierhenry Distinguished University Professor at the University of Nebraska. He is currently President-elect and Treasurer of the International Test Commission and the Assessment and Evaluation division of the International Association of Applied Psychology, and the leader of the Large Scale Assessment SIG in AERA. He has edited or co-edited the following volumes: Psychological Testing of Hispanics, Test Interpretation and Diversity, High Stakes Testing in Education, and The APA Handbook of Testing and Assessment in Psychology (3 volumes) and Psychological Testing of Hispanics: Clinical, Intellectual, and Cultural Issues, all with APA books and the 17th, 18th, 19th and 20th Mental Measurements Yearbooks, Pruebas Publicadas en Espanol and Tests in Print VIII and Test in Print IX. He is co-editor of the ITC Handbook of Testing and Assessment. He worked for 15 years at Fordham University, six as chair of the Psychology Department. He was also a dean of arts and sciences at the State University of New York at Oswego, and vice president for academic affairs/provost at LeMoyne College and the University of St. Thomas, prior to moving to the University of Nebraska, and served as a professor at all the institutions where he has worked. He has had an involvement with NERA lasting 41 years this year. He has chaired the College Board's Research Committee, the GRE Technical Advisory Committee, the GRE Board, and has served on the SAT Committee and the Educational Records Bureau Technical Advisory Committee.

#### Thursday, October 19, 5:30-6:30

### Session 7.1: Looking Ahead to NERA 2018

Feature Augusta

President Elect: Javarro Russell, Educational Testing Service

Conference Co-chairs: Jade Lee, *University of New Hampshire* Tabitha McKinley, *New Jersey Department of Education* Darlene Russell, *William Paterson University* 

Do you have an idea for the NERA conference that you think would make it even better? Is there a session format you would like to see at the conference? Do you have an idea for an invited panel that NERA members would really enjoy? This session is for those interested in collaboratively brainstorming innovative ideas for the NERA 2018 conference. All are welcome.

# **Session 7.2: NERA Mentoring Program Happy Hour** Social

Parallel Post Bar

A key part of every NERA conference, the mentoring program provides graduate students with the opportunity to meet with professionals in the field. Mentors can provide individualized feedback on research projects and/or dissertations, as well as provide guidance during the conference. An opportunity for participants in the mentoring program to forget about those research projects and dissertations for an hour will be provided on Thursday afternoon.

# **Dinner & Presidential Address (7:00 - 8:30pm)** Plenary Session

**Grand Ballroom** 

#### What if What We Know Ain't So?

Craig Wells, NERA 2017 President, University of Massachusetts - Amherst

The scientific method, which is based on the use of empirical evidence and reason, is a powerful means for building knowledge in the Social Sciences. One particularly popular and potentially effective approach, which has been around for centuries, is null hypothesis testing. Despite null hypothesis testing's popularity, as it is taught in every university and employed by many researchers, there are serious pitfalls and challenges we must face when using it to build valuable knowledge. In this Presidential Address, I will cover several challenges we encounter when using hypothesis testing to build useful knowledge and offer possible solutions that support important, high-quality research.

# **Presidential Reception Sponsored by** *iReady* **(8:30 - 11:00pm)**Social Merritt North/South

Need to unwind after a great knowledge-filled day? Come join us for the presidential reception! This year we completely mixed this event up to include Top 40s guitarist Mike Omara, retro table top games, as well as the legendary NERA photo booth. Singing out loud is encouraged.

#### Friday, October 20, 8:30 - 10:00

#### **Breakfast & NERA Business Meeting (7:30 – 8:30am)**

Grand Ballroom

All NERA members are welcome to attend the annual NERA business meeting.

# **Session 8.1: Supporting Special Education and Diverse Learners**Paper Session Augusta

Chair & Discussant: Ashley Carpenter, University of Massachusetts - Amherst

'If The Adjustment Is Not Effective, It's Not Reasonable': Deaf Access To Justice In Northern Ireland Brent Elder, Rowan University; Michael Schwartz, Syracuse University College of Law

The purpose of this qualitative project was to generate data and insight to guide the education of the key stakeholders (e.g., Deaf people and their families, solicitors, judges, court personnel) on the provision of effective communication access for Deaf people in the system of justice to shape national policy.

An Examination Of Home, School, And Community Experiences Of High-Achieving Deaf Adults
Kara K. Tanner, Marcia Delcourt, & Gabe Lomas, Western Connecticut State University; Nora Marrinan,
Ridgefield Public Schools

Fifty percent of deaf and hard-of-hearing US students graduate from HS reading at or below the fourth-grade level. This study reveals the academic, community, and family experiences of high-achieving adults who are profoundly deaf and provides insight into factors responsible for their success. Analyses used qualitative software.

### Teacher Planning, Articulation, And Perceptions Survey: Students With Learning Disabilities And Middle/High School

Keith McLaren & Aarti Bellara, University of Connecticut

The Teacher Planning, Articulation, and Perceptions (TPAP) Survey was developed to understand the middle to high school transition experiences for students with and without learning disabilities. The findings suggest that teachers need improved school and district-based support in preparing for students with and without disabilities for this transition.

### Unifying The Field, Embracing Emancipatory Practice: A Review Of Disability Studies In Teacher Education

Beth Fornauf, University of New Hampshire

The definition of disability as either a social construct or an individual deficiency is both the root of the problem and tip of the iceberg that divides the field of teacher education. This paper examines the relationship between Disability Studies and teacher education as a means to unite the field.

#### Friday, October 20, 8:30 - 10:00

Neighborhood Resources And The Use Of Disciplinary Exclusion Among Special Education Students Robert Dembo & Jenny Lafleur, *Brandeis University* 

Nationwide, students with disabilities are disproportionately impacted by disciplinary exclusion practices such as suspension. This study uses spatial and multivariate analyses to consider the association between the use of disciplinary exclusion among special education students with the presence of neighborhood resources available to support children's wellbeing.

#### Session 8.2: Perspectives on Graduate Student Internships

Symposium Hartford

Facilitator: Carl Setzer, AICPA

Speakers: Jonathan Rubright, National Board of Medical Examiners

Lisa Keller, University of Massachusetts - Amherst

Thanos Patelis, *HumRRO* Xiuyuan Zhang, *College Board* 

Terran Brown, Educational Testing Service

Matthew Shultz, AICPA

Graduate students are increasingly seeking internship opportunities in preparation for post-graduation employment. Many testing organizations offer internship programs that attract large volumes of applications. This symposium will feature several professionals and graduate-level faculty who will discuss the importance of internships, the application process, and employer expectations.

#### Session 8.3: Strategies and Recent Applications of Effective Study Design and Data Management

Symposium Montpelier

Chair: Steven Holtzman, Educational Testing Service Discussant: Dena Pastor, James Madison University

#### **Effective Study Design Techniques For Educational Research**

Steven Holtzman, Educational Testing Service

Effective study design is important to any research project. Whenever approaching a new project, the researcher must carefully consider his or her research question(s) and ensure appropriate decisions are made to guarantee valid and reliable claims can be made from the results. These decisions include, but are not limited to, exploration of the following questions: When are treatment and control groups necessary? What is the best scale score range to use for survey questions? What is the appropriate way to ask about gender and ethnicity (Seastrom, 2003)? What needs to be considered when a survey is targeted for examinees in different age groups or countries? What are the implications of the order in which the items are presented? How does the level of consequence for the examinee affect the quality of responses? This presentation will explain how to best handle these decisions when planning research studies.

### Friday, October 20, 8:30 - 10:00

#### **Best Practices In Data Management For Research Projects**

Jonathan Steinberg, Educational Testing Service

Proper data management for research projects is composed of numerous and important steps in ensuring that the resulting data meets all quality control and technical standards. During the data collection period, researchers must be careful to maintain privacy regarding personally identifiable information and have appropriately secure systems in place for data submission, merging, and accurate data exports. Once a working data set is established, various checks should be performed to confirm the data were collected and exported correctly. These include properly accounting for opt-out examinees, missing data, speededness, overly consistent or patterned responding, univariate and multivariate outliers, and trend, floor, and ceiling effects. This presentation will explain each of these steps, so that attendees can consider implementing these in future research studies.

## Data Management And Data Visualization In R: An Application To University Post-Collegiate Outcomes Assessment

Heather Harris, James Madison University

As free, open-source statistical computing software, R has steadily increased in popularity for data manipulation and analysis in university assessment and educational research. However, despite its popularity, there can be a learning curve associated with beginning to use R (or RStudio) for day-to-day data management purposes. Aside from the potential challenges that arise when acclimating to the R environment (e.g., the base R package does not have a graphic user interface), R has many strengths that make it a powerful tool for data management and data visualization. This presentation will briefly walk through applied examples of data management and data visualization in R in the context of a university assessment project. Specifically, this presentation will briefly illustrate data screening, data manipulation, and data visualization using the example of a university-wide alumni post-collegiate outcomes assessment project. This presentation will walk through the typical steps of the data management process in R and provide examples to introduce helpful tools including ggplot2 (Wickham, 2007) and the psych package in R (Revelle, 2017). Additionally, helpful resources for data management and trouble-shooting common error messages in R will be provided via a handout.

## Data Management Tips And Tricks: An Application To University Student Assessment Derek Sauder, James Madison University

James Madison University (JMU) annually conducts two university-wide Assessment Days where students are assessed with several General Education tests. All first-year incoming students (about 4,500) attend fall Assessment Day, which occurs just prior to the beginning of the fall semester. Students are then assessed again after earning 45 to 70 credits roughly a year and a half later, during spring Assessment Day. The planning, administration, and data management for Assessment Day is completed by a small team within the Center for Assessment and Research Studies (CARS). Such a large-scale undertaking requires not only human capital and administrative buy-in, but also the means, resources, and procedures to ensure the timely delivery of high quality data to constituents and stake-holders across the campus. This presentation focuses on the data management that occurs after each Assessment Day, and will share some of the tools and tricks the team utilizes from year to year to ensure consistently high quality data. Specifically, some of the challenges associated with data management of the large-scale assessments conducted each year are highlighted, followed by the way the Assessment Day team currently addresses these challenges. Finally, the presentation will conclude with some suggestions for building the infrastructure required for timely and efficient data management.

### Friday, October 20, 8:30 - 10:00

# Session 8.4: Integrating Technology and Testing Paper Session Providence

Chair: Sousan Arafeh, Southern Connecticut State University
Discussant: April Zenisky, University of Massachusetts - Amherst

## Using Technology To Advance Understanding: The Calibration Of Clas, An Electronic Developmental Scoring System

Theo Dawson, Lectica, Inc.

This paper describes the development and calibration of CLAS, an automated developmental scoring system that measures growth of understanding. CLAS's algorithms leverage a curated taxonomy of meanings called the Lectical Dictionary developed through an analyst-machine-learner collaboration to determine how test takers appear to have constructed meanings over time.

## Ipads In The CWRA+ Assessment Of Critical Thinking And Written Communication: No Evidence For Unfair Advantages

Jonathan Lehrfeld, Council for Aid to Education

This study examines the effects of taking a critical thinking assessment on an iPad vs. desktop or laptop. We find only a few statistically significant effects, with uniformly miniscule effect sizes, suggesting scores are not affected by mode of administration. The results bolster the validity evidence for our measured constructs.

### Current State Of Technology Enhanced Items In Large-Scale Educational Testing

Sebastian Moncaleano & Michael Russell, Boston College

This paper depicts and summarizes the current practice on the use of technology-enhanced items in large-scale educational programs around the world. Through an extensive survey of items the paper discusses the utility and fidelity of these items and the implications this has on item development.

# The Quest For Efficiency And The Evolution Of Automatic Scoring Machines In The 20th Century Sebastian Moncaleano, *Boston College*

This paper tracks how automatic-scoring machines came to be and evolved into the computerized techniques we use today throughout the 20th century. This historical review shows the reader how every innovation was a direct consequence of the previous innovation and all of them were driven by a quest for efficiency.

### Friday, October 20, 9:00 – 12:00

### Session 8.5: Teacher-As-Researcher Session

### Paper & Roundtable Sessions

Boston / Concord

#### **Inquiring Practicioner Series**

Announcing a special session for P-12 educators to be held at the Northeastern Educational Research Association (NERA) annual conference. This session is designed to provide a forum for teachers and administrators to discuss the connections among theory, research and practice and to introduce practitioners to NERA.

#### Challenges and Opportunities for Using Technology in P-12 Contexts

Joshua Koen, New Jersey Department of Education

The conference theme this year is "Using Technology to Advance Education: Challenges and Opportunities". This talk will highlight some of the current challenges and opportunities practitioners should consider particularly in urban contexts. The presentation will provide an overview of four broad themes impacting technology integration in P-12 contexts: infrastructure (including resources and capacity); using technology for differentiation and alternative access to the curriculum; using technology to move learning beyond the classroom walls; and twenty-first century skills.

After Mr. Koen's presentation, the room will breakout into five roundtable presentations:

## 21<sup>st</sup> Century Professional Development: Developing Collaborative Networks through Google for the Reciprocating and Exchange of Best Teaching Practice Ideas

Althia Peart-Green, Montclair State University; Carolina James, Panther Academy of Earth and Space Science

Seven 6-8 urban middle school teacher practitioners, self-assemble an unconventional professional learning collaboration team through the use of Google. The exchange of ideas and resources aided in strengthening communications among teachers and in developing cohesiveness in lesson planning and assessments. The collaboration among teachers through an online network directly forged a "community of practice" benefiting both the teachers and students.

## Using Professional Learning Networks to Develop Technology Integration Skills among Teachers Antoinette Bruciati, Sacred Heart University

Teachers routinely use digital, interactive, and emerging technologies to present content, improve academic achievement, and prepare themselves for the challenges of teaching. Professional Learning Networks (PLNs) enable teachers to share subject area expertise and innovative pedagogies through the use of social media or other online communication tools. Through informal partnerships, groups of teachers can develop collaborative classroom activities that increase student motivation and active engagement. This discussion introduces the concept of PLNs and shares research-based strategies that teachers can use to locate or build their own learning networks.

#### A Better Way to do RTI, Changing the World One Kindergartener at a Time

Carrie Thurston, Consultant Literacy Specialist; Heidi Early-Hersey & Stephanie Morneault, MSAD 60

The presenters' approach is to identify, as early as possible, those students who do not have the early literacy skills required for kindergarten success, and then to establish grade level electronic data walls to

### Friday, October 20, 9:00 – 12:00

collect, organize and utilize data routinely. Data walls became a working document from act. Presenters will discuss appropriate interventions. Interventions combine both the instruction of the literacy skills needed for success in school, but also supporting the development of the brain to learn. Kindergarteners will leave K reading at or above grade level, and levels of proficiency will persist as children progress further through the grades.

## Perceptions of Parental Roles in Helping Children Develop Perseverance in the Context of Math Homework

Dianne Escalante, Boston College Lynch School

It is generally accepted among educators and researchers that parents' involvement in their children's education contributes to higher academic achievement. Recent research on entity and incremental theory also stresses the influence of a "growth mindset" in encouraging perseverance. Linking these theories, if parents' involvement manifests itself in providing motivation for their children, student achievement will be positively impacted. This study explores how parents in a suburban school district view their role in helping their children develop perseverance in the context of math homework. A framework is proposed to examine the development of parents' perceptions as a function of their personal experiences and group norms, and how this ultimately impacts their children's motivation.

## Coding with Scratch to Spark Creativity for Children's Writing and for Music Heejung An, William Paterson University

The Computer Science for All initiative has sparked the development of various types of computer coding tools geared for children. Scratch is a programming environment designed for children to create animations, music, games, and stories. This session will explore how coding activities in Scratch can motivate students to participate in creative writing efforts, and to create their own music.

### Session 9.1: Psychometrics and Model Fit

Paper Session Augusta

Chair: Sarah Newton, University of Connecticut

Discussant: Kimberly Colvin, University at Albany, SUNY

### The Feasibility Of Pre-Equating With Classical Test Theory Under Equivalent Group Design

Shuying Sha, Excelsior College

This study explores the feasibility of pre-equating with classical test theory (CTT) item statistics and pre-equating with observed scores. Results are evaluated against post equating observed score equating. Limitations of using CTT item statistics for mean equating and linear equating are discussed.

#### **Exploring Distribution Of Model Fit Statistics**

Hwanggyu Lim & Craig Wells, University of Massachusetts - Amherst

This study explores the distribution of the IRT fit statistics of Z-X2 and S-X2 under the exact- and close-fit hypothesis. In the close-fit hypothesis, both fit statistics are expected to follow a noncentral chi-square distribution whereas, in the exact-fit hypothesis, both fit statistics are expected to follow a chi-square distribution.

## Using Differential Item Functioning To Examine Differential Goals For College And Career Across Demographic Groups

Darius Taylor & Lisa Keller, University of Massachusetts - Amherst

Differential item functioning techniques are applied to survey data to investigate differences in college and career goals across gender and racial groups. Preliminary results indicate that differences in aspirations are present for some of the groups.

#### **Comparison Of Methods For Treatment Of Differential Item Functioning**

Xiaowen Liu & H. Jane Rogers, University of Connecticut

The current study compared four treatments for items showing DIF: deleting DIF; ignoring DIF, multigroup modeling of DIF, and modeling DIF as a secondary dimension. Results of a simulation show that modeling DIF as a secondary dimension provides the most accurate trait estimates for the focal group.

### Session 9.2: Noncognitive Influences in Education

Paper Session Hartford

Chair: Clarrisa Uttley, *Plymouth State University* Discussant: Sarah Ferguson, *Rowan University* 

## "I Can't Cope!": Academic Entitlement As Maladaptive Coping For Performance-Driven Students Monica Erbacher, *University of Arizona*

Regression models indicate academic entitlement (AE) is higher in students with strong external locus of control, performance avoidance, and perseverance. Results suggest AE is a coping mechanism for students motivated by social comparison, who avoid responsibility for poor performance. Interventions involving adaptive coping mechanisms may eliminate AE.

## "Okay, But Did You Feel Frustrated?": A Critical Analysis Of Social Emotional Learning Clio Stearns, University of New Hampshire

This paper examines the assumptions of codified Social and Emotional Learning. Relying on critical discourse analysis, classroom observations from two public schools, and teacher interviews, the paper shows that SEL mandates positive affect and calm. The paper argues for a less codified, more organic approach to student emotion.

### Perceptions And Reality: Noncognitive Skills In Middle School

Christopher Kurzum & Kevin T. Petway II, Educational Testing Service

This study investigates the relationship between middle school students' perceptions of their school's development of noncognitive skills and the students' current scores on noncognitive skills and the change in their scores over time.

## The Shaping Of High School Student Science Engagement Through Biology Coursework And Background Knowledge

Jonathan Steinberg, Kelsey Dreier, Tenaha O'Reilly, Jonathan Weeks, & John Sabatini, *Educational Testing Service* 

This high school student study explored a framework where Biology coursework relates to science background knowledge (BK) and to science engagement. Engagement is positively predicted by BK and participation in honors/Advanced Placement (AP®) Biology courses. The results can influence future student choices of courses or college majors.

#### **Development Of The Large Scale Diagnostic Assessments Of College Skills**

Jason Bryer, Excelsior College; Fusun Sahin, American Institutes for Research; Heidi Andrade, Angela Lui, Diana Akhmedjanova, & David Franklin, University at Albany, SUNY

The Diagnostic Assessment and Achievement of College Skills (DAACS) is a technology-based, no-stakes diagnostic assessment system on academic and non-academic skills, with fast, actionable feedback. Development and piloting of these assessments at two online colleges is underway. Preliminary validity and reliability evidence of these assessments are reported in this paper.

### Session 9.3: Assessing Technology's Impact on Education

Paper Session Montpelier

Chair: Catherine Manly, University of Massachusetts - Amherst

Discussant: Joshua Marland, Education Analytics

### The Impact Of Integrated Delivery On Undergraduate Biology Research Course Outcomes

Roxie James & Claudia Knezek, Kean University

An electronic model was piloted in the Capstone. Previously, an Adaptive Taxonomy (AT) was used in Research and Technology courses to expand traditional methodology by including augmented, blended, and online course content. It was proven that the enhanced Capstone courses would have higher final grades than the traditionally instructed sections.

#### **Effectiveness Of Khan Academy In Improving Fourth Grade Math Skills**

Jennifer Durso & Leeann Trimarchi, Fordham University Graduate School of Education

This paper evaluated the effectiveness and social validity of Khan Academy in increasing math performance of three elementary students in their homes with a facilitator. Visual and Tau-U analyses of multiple probe single-case designs (across math behaviors) indicated that all students achieved success during intervention and maintained improvements over time.

### Efficacy Of Blended Learning Model Literacy Intervention For Struggling Adolescent Readers

Maria Finger-Elam & Marquis Dwarte, Baltimore County Public Schools

Baltimore County Public Schools developed and evaluated a blended-learning literacy intervention for freshmen with reading comprehension skills two to four years below grade level. The evaluation findings indicated that students who fully engage in the computer-adaptive instructional component of the intervention evidence notable growth in reading comprehension skills.

#### **Effects Of Human Interactions With Computers On Ethical Decisions**

Anne Niccolil, U.S. Coast Guard

This study examined the differences between digital (tablet or computer) and non-digital (paper) human interactions on decision making. Students were presented with the same ethical prompt to activate an abstract mindset for each condition. Students considered the same ethical dilemma for each condition, then made an ethical decision.

### Session 9.4: What's Happening to our Students' Math Scores?

Symposium Providence

Chair: Marcella Mandracchia, Hostos Community College

Discussant: Edwin Tjoe, St. John's University

### **Technology And Mathematically Gifted Learners**

Marcella Mandracchia, Hostos Community College; Jenny Yang, St. John's University

Gifted education calls for the use of several strategies to help improve math achievement. One such strategy is the use of ability grouping, which is used to curb students' feelings of boredom, frustration, low motivation, and underachievement (Preckel, Gotz, & Frenzel, 2010). Another strategy utilized is the use of online programs to provide more individualized, and student-centered approaches (Thomson, 2010). These programs must include differentiated learning experiences as well as opportunities for self-directed and independent learning. Another strategy is the cultivating math interest and motivation. Matthews and Farmer (2008) and Meier, Vogl, and Preckel (2014) both indicate that there is an influence of motivation and self-concept on achievement, especially with mathematics. The purpose of this study was to evaluate whether the factors of 'ability grouping', 'use of computer programs', 'computer availability', 'percentage of gifted', 'SES', 'parental education', and 'math interest' impact math achievement of advanced learners.

#### The Influence Of Technology On Mathematics

Bryan Gorman, Port Washington School District

Within the past decade, student access to technology in schools and at home has increased immeasurably. While not all children have equitable access to technology, ongoing discussion centers around the effective integration of technology and its impact on student achievement. The purpose of this research is to determine if technology has a positive effect on student achievement in eighth-grade mathematics.

#### The Influence Of Administrative Factors On Mathematics

Jesse Brasco, Hofstra University

This study sought to analyze the impact of administrative decisions on the eighth grade National Assessment of Educational Progress (NAEP) in Mathematics. This non-experimental study analyzed the 2011 Mathematics NAEP dataset, using factor analysis to create latent variables that are representative of administrative decisions. This study is important because administrators are held accountable for student outcomes in their schools, but few studies directly link specific administrative factors to academic achievement. The goal of the study was to see which, if any, of the following administrative factors have a statistically significant relationship with student achievement: (a) teacher experience, (b) professional development, (c) alignment to standards, (d) use of math specialist, and (e) use of technology.

### Session 9.5: Poster Session

#### Poster Forum

Merritt North / South

## Can Brief, Evidence-Based Measures Be Effective RTI Screens In Urban Schools? A Preliminary Study Cheryl Durwin, Dina Moore, & Deborah Carroll, Southern Connecticut State University

Inefficient RTI screening in urban schools where many students read below grade-level may underidentify students needing intervention or over-identify students, over-burdening a limited-resource system. We examine the classification validity of research-based screens with first-graders from one urban school. An oral vocabulary measure yielded high classification accuracy. Practical implications are discussed.

#### **Read The Pictures**

Christina Nestory, William Paterson University

A developmentally delayed child is in a race against time. Dialogic reading is a dynamic intervention that targets growth in speech and language while also influencing pre-academic skills. Through case study review, learn how dialogic reading had maximum impact on two toddlers receiving early intervention services.

### **Exploring A Fulbright Cross Cultural Program For German Teachers**

Blair Izard, University of Connecticut

Across the US and Germany, there is a cultural divide between teachers and their students. In direct response to the vast influx of refugees to Germany, this paper addresses a Fulbright program intended to support German teachers in their learning about culture so they may teach in culturally responsive ways.

#### Rethinking The Measurement Of Dispositions In An Education Preparation Program

Mary Yakimowski & Karen Waters, Sacred Heart University

Due to the vital role that dispositions serve in the learning context, researchers and accreditors support the measurement of dispositions for students enrolled in education preparation programs. Presenters share their study about how the faculty re-thought how to systematically measure dispositions and then use the information for continuous improvement.

## Teacher Self-Efficacy Instructing Children With Problem Behavior (TSE-ICPB) Rating Scale: A Validation Study

Elizabeth Howe, University of Connecticut

This proposal presents results from a pilot study of a rating scale assessing teacher's perception of their self-efficacy when instructing children who demonstrate problem behaviors. The presentation describes the theoretical rationale of the scale, it's development, the final results, and the future direction of the scale.

## Social and Emotional Learning: Validation of Instruments to Assess Courage, Forgiveness, Gratitude, and Compassion

Marcia Delcourt, Western Connecticut State University; Scarlett Lewis & Stephanie Bierman, Choose Love Foundation

Choose Love Foundation members created a program to infuse social and emotional learning essentials into the curriculum for Pre-Kindergarten - 12 students using the components of Courage, Forgiveness, Gratitude, and Compassion. Five developmentally-based surveys were created and accessed online. Their initial validation is the focus of this presentation.

## Differences on Fourth Grade 2003 NAEP Reading Scores Between Northern and Southern States Persist in 2015

Stuart Smith, Alfred University

Thirty-five mostly northern states scored above the national mean on the 2003 NAEP fourth-grade reading assessment whereas 13 southern states scored below. The results for the 2015 assessment were very similar to the 2003 results.

#### A Special Connection that Leads to Collaborative Learning

Mikayla Pascucci & Sheetal Sood, University of Hartford- Department of Education

This presentation explores the collaborative learning experience between a pre-service teacher and a young adult with Down's syndrome working in a University setting to foster independency in the work field. Join us to learn about strategies used and experiences when working together as a team towards our journey to success.

## The Compounding Impact of Item Parameter Drift in Anchor Item Difficulty Over Time David Alexandro, Kristen Juskiewicz, & H. Jane Rogers, *University of Connecticut*

The purpose of this study is to evaluate the impact of item parameter drift (IPD) in the difficulty of anchor items on trait estimates when test forms are linked over a succession of years using item response theory (IRT) methods.

# Reading to Comply or to Connect: A Content Analysis of Annual Best Book Lists for Young Adults John Beach, St. John's University

This content analysis investigated motivation to read among young adults by comparing annual best book lists from 1987 to 2016 recommended by librarians (ALA/American Library Association's Best Books/Fiction for Young Adults) and by young adults themselves (ILA/International Reading/Literacy Association's Young Adult Choices). A significant divergence was found.

## Every Target and Milestone Matters: Developing Connecticut's Evidence-Based Early Indication Tool (EIT)

Charles Martie, Connecticut State Department of Education; David Alexandro & William Estepar-Garcia, University of Connecticut; Ajit Gopalakrishnan, Connecticut State Department of Education

Early warning systems typically focus on students' dropout risk. The Connecticut State Department of Education extended this model to create the Early Indication Tool (EIT), a K-12 system that predicts

student performance, identifies students who are at-risk of missing milestones and/or dropping out, and ultimately facilitates more timely interventions.

## **Evaluating the Construct Validity and Measurement Invariance of National Survey of Student Engagement Subscales**

Ella Banda, University of Massachusetts - Amherst

The NSSE survey is widely used in the USA and Canada. The use of NSSE results depends on the propositions of validity of its use and reliability. In this study these aspects were evaluated using CFA by fitting the NSSE model on institutional level data.

## Connecting Assessment Quality Criteria to Intended Purposes and Uses: Towards a Framework and Examples

Nathan Dadey, The National Center for the Improvement of Educational Asses

A truism is that a good assessment is designed to fulfill a particular purpose. However, there are virtually no examples illustrating how to evaluate an assessment in relation to a specific purpose and use. The goal of this paper is to develop a framework that connects quality criterion to use.

#### Reading Intervention Literature and the Influencing Role of Vocabulary

Lauren Erickson, University of Massachusetts Amherst

The Simple View of Reading theory purports reading comprehension is the product of decoding and language skills. This poster will present current understanding of word-level automaticity, prosody, and vocabulary-based interventions on reading outcomes for developing readers and provide rationale for future research related to interventions targeting fluency via vocabulary development.

# Market Fundamentalism & Educational Equity? Mapping the Accessibility of Private Schools to Underserved Students

Jennifer Lafleur, Brandeis University

The current presidential administration and its secretary of education have prioritized the expansion of 'private school choice' options. This project used GIS-based analyses to determine the accessibility of private schools to historically underserved populations in Houston, as the Texas Legislature considers implementing an expansive voucher program beginning in 2018-19.

# Examining Support Services At Institutes Of Higher Education For LGBTTQQIAAP Students And LGBTTQQIAAP Homeless Students

Gabriel Vega, Plymouth State University

This study explored practices at institutes of higher education (IHE's) for LGBTTQQIAAP students and LGBTTQQIAAP students experiencing homelessness. The study utilized electronic survey asking employees at IHE's about the types of programs offered for LGBTTQQIAAP students and LGBTTQQIAAP students experiencing homelessness. Results and implications will be presented on the poster.

Three Sides to Every Story: Perspectives on Advising from Faculty, Students, and Staff Jaria Aljoe, *Goodwin College* 

An open admission, post-secondary institution conducted surveys and focus groups to evaluate the current academic advising model and to understand the perspectives on the model from staff, students, and faculty in an effort to establish a new model that fits the needs of all parties involved.

From Stigma to Social Justice: The Role of Community Colleges in Societal Change Nicole O'Donnell, *CUNY* 

This research examines the role of community colleges (CCs) in social justice. It argues for CCs unique ability to shape agents of social change due to multiple critical facets. Through the personal narratives of CC students, we explore how CCs further societal change via the agency of their students.

### Friday, October 20, 11:30 – 1:30

### **Lunch & NERA Past President's Panel**

Plenary Session Grand Ballroom

### Significant Trends in Educational Research: Insights From NERA Past Presidents

Moderator: John Young, Independent Consultant

Panelists: April Zenisky, University of Massachusetts – Amherst;

Darlene Perner, *Bloomsburg University*; Lynn Shelley, *Westfield State University*; Kristen Huff, *Curriculum Associates*;

Thanos Patelis, Human Resources Research Organization

For our final session of the conference, former NERA President John Young has assembled a panel of past NERA presidents to discuss previous and potential future trends in educational research based on their abundant and diverse experience. Grab lunch from the buffet and then join us in one last conversation about making an impact before we part ways.

## NERA At-A-Glance: Wednesday, October 18, 2017

	Augusta	Boston	Concord	Hartford	Montpelier	Providence	Merritt North	Merritt South	Grand Ballroom
9:00am – 5:00pm	Registration (Main Conference Hallway)								
9:30am – 12:30pm					0.1 NERA Board Meeting (9:00 – 12:45)		0.2 Pre- Conference Workshop: Mixed Methods Research Proposals	0.3 Pre- Conference Workshop: Moving from Paper to Online Assessments	
12:30 -	Lunch on Your Own								
1:30 pm									
1:30 – 3:00 pm	1.1 Highlighted Symposium: Advancing Education Through Technology	1.2 GSIC Session: The Art of the Interview: Helpful Tips from Experienced Professionals	1.3 Symposium: Implementing the New Massachusett s Candidate Assessment of Performance	1.4 Paper Session: Detecting Item Exposure and Person Misfit		1.5 Paper Session: Educational Accountability		1.6 In- Conference Workshop: Applications of an Alignment Evaluation Framework (1:30 – 4:30)	
3:15 – 4:45 pm	2.1 Symposium: Opportunities and Challenges for Educator Preparation Programs Obtaining Measures on Student Learning	2.2 Symposium: Mentoring in a Post- Secondary Environment	2.3 Paper Session: Measuring and Investigating Noncognitive Constructs	2.4 Paper Session: Diagnostic Measurement	2.5 Paper Session: Research on Educational Outcomes	2.6 Paper Session: Research on Early Childhood Education	2.7 Poster Session: Educational Technology Featured Poster Session		2.8 Roundtable Sessions (Salon E-G)
4:45 –	Graduate Student Iss	ues Committee S	<b>Social</b> (Merritt Fo	yer)					
5:30 pm						/o			
5:30 -	Dinner and Invited Keynote: Virginia Edwards – From 'Fake News' to Teachable Moments (Grand Ballroom)								
8:00 pm 8:00 –	NERA Welcome Rece	NERA Welcome Reception Sponsored by Stata ft. Latin Guitarist Rich Barry (Merritt North/South/Foyer)							
11:00 pm		•	•			· , ,			

## NERA At-A-Glance: Thursday, October 19, 2017

	Augusta	Boston	Concord	Hartford	Montpelier	Providence	Merritt North	Merritt South		
7:00 -8:15	Breakfast (Grand Ballroom)									
9:00 am –	Registration (Main Conference Hallway)									
5:00 pm	(NOTE; the registration desk will close from 12:00 – 2:00 pm for the lunchtime plenary)									
8:15 – 9:45 am	3.1 Symposium: Technology- Enhanced Items: A Helpful Innovation or the Rube Goldberg of Assessment Design?	3.2 Symposium: The Diagnostic Rating System (DRS): A New Performance Assessment Rating System Applied to Ethical Reasoning	3.3 Paper Session: Research on Diverse Learners	3.4 Paper Session: Quantitative Methods in Education	3.5 Paper Session: Educational Policy and School Reform	3.6 Paper Session: Teacher Perspectives	3.7 In- Conference Workshop: Using R to Automatically Generate Technical, Research, and	3.8 In-Conference Workshop: The Teachlive Lab: Using Avatars in Mixed Reality Simulations for Teacher Candidates and		
10:00 -	4.1 GSIC Session:		4.2 Paper Session:	4.3 Paper	4.4 Paper	4.5 Paper	Score Reports	Professional		
11:30 am	Getting Ready to Publish		Technology Issues in Education	Session: Test Design and Development	Session: Postsecondary Education	Session: Educational Leadership	(8:15 – 11:15)	Educators (8:15 – 11:15)		
11:30 -	Lunch and Keynote Panel: Making Sense of the School Choice Debate: A Nuanced Approach through Varied Perspectives.									
1:30 pm	Panelists:	Preston Green, Kathryr	n McDermott, and Cas	sey Cobb (Grand Ba	allroom)					
1:45 – 2:15 pm	5.1 Poster Session (1:45 – 3:00)									
2:15 –	5.2 Symposium: 5.3 Paper Session: 5.4 Symposium: 5.5 Paper 5.6 Educational Technology					Technology				
3:45 pm	What Are They Thinking? What Are We Getting? Evaluating Test Questions through Response Process Research	Games and Simulations in Education	Engaging Diverse Science Students Through Note Taking, Modeling, And Mathematics Enrichment	Session: Educational Measurement Applications	<b>Demonstration:</b> iReady and Stata					
4:00 – 5:30 pm		6.1 Paper Session: Interactions between Educational Technology, Media, & Society	<b>6.2 Paper Session:</b> Research on Educator Preparation	<b>6.3 Paper Session:</b> Qualitative Research in Education	<b>6.4: Invited Interview:</b> Ask Me Anything (AMA) with Dr. Kurt Geisinger					
5:30 –	<b>7.1</b> Looking Ahead						_	Program Happy		
6:30 pm	to NERA 2018						Hour ( <b>Parallel</b>	Post Bar)		
7:00 – 8:30 pm		ial Address: Craig Well								
8:30 – 11:00 pm	Presidential Recept	ion Sponsored by iRea	<b>dy</b> ft. Top 40's Guitar	ist Mike Omara & I	Photoboth (Merritt	: North/South/Fo	oyer)			

## NERA At-A-Glance: Friday, October 20, 2017

	Augusta	Boston	Concord	Hartford	Montpelier	Providence	Merritt North	Merritt South		
7:00 – 8:30 am	Breakfast & NERA Business Meeting (Grand Ballroom)									
9:00 – 11:30 am	Registration (Main Conference Hallway)									
8:30 – 10:00 am	8.1 Paper Session: Supporting Special Education and Diverse Learners	8.5 Teacher-as-Res Inquiring Practition Challenges and Opp Using Technology in followed by Roundt	ners Series: portunities for n P-12 Contexts	8.2 Symposium: Perspectives on Graduate Student Internships	8.3 Symposium: Strategies and Recent Applications of Effective Study Design and Data Management	8.4 Paper Session: Integrating Technology and Testing				
10:15 – 11:30 am	9.1 Paper Session: Psychometrics and Model Fit	(9:00 – 12:00)	able Sessions	9.2 Paper Session: Noncognitive Influences in Education	9.3 Paper Session: Assessing Technology's Impact on Education	9.4 Symposium: What's Happening to our Students' Math Scores?	9.5 Poster Session			
11:30 – 1:30 pm	Lunch & Closing	Plenary Panel: Discu	ussion on Future	Trends in Education	al Research from NERA	A Past Presidents (Gra	and Ballroom)			

