# **NERA 2021**

# Using Data to Solve Education's Challenges

# 52nd Annual Meeting of the Northeastern Educational Research Association Virtual Meeting

October 13-15, 2021



NORTHEASTERN EDUCATIONAL RESEARCH ASSOCIATION



# Welcome Message from the 2021 NERA President



It is my pleasure to welcome everyone to the 52nd annual conference of the Northeastern Educational Research Association (NERA)! Although this year's conference is virtual for the second consecutive year, I am very excited that it builds upon the success of last year's virtual conference by adding many new features that new and returning NERA members will enjoy. The theme of the 2021 NERA conference, *Using Data to Solve Education's Challenges*, is more important than ever today, as it is critical for all members of the education community to both know how to use data appropriately when facing challenges, as well as take advantage of the myriad of new data available through virtual platforms.

The 2021 Conference Co-Chairs, Hank Johnson, Haifa Matos, Liz Spratto, and Jonathan Steinberg have worked diligently, despite numerous challenges, to put together an excellent conference program. They received a very large number of high-quality proposals so I am confident the paper, poster, and roundtable sessions will be informative and enlightening. In addition, there will be five workshops that will address a diverse set of topics ranging from quantitative and qualitative data analysis methods to personal branding to diversity, equity and inclusion. The two keynote speakers, Sarah Cohodes and Jennifer Bell-Ellwanger, as well as the invited panels, will provide great perspectives on the use of data in different contexts.

In addition to all the wonderful sessions, the conference co-chairs have planned many exciting opportunities for NERA members to network and make connections. I hope that you all explore the Gather.Town platform and meet each other in our virtual layout, just as you would have if we were inperson. Although the NERA conference always has great speakers, workshops and presentations, we are known for our educational research community. I am personally excited for the opportunities this platform allows for NERA to provide this community feel in the virtual environment.

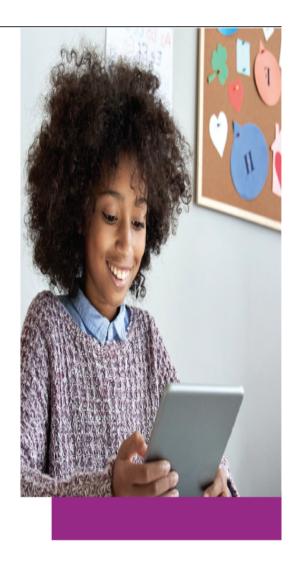
I would like to express the immense appreciation I have for the 2021 Conference Co-chairs. They accepted this role in the Fall of 2019 before anyone heard of COVID-19 and despite the unprecedented times over the next two years, they never ceased to amaze me. I would also like to thank the NERA Board of Directors, those in appointed positions, committee chairs, committee members, reviewers, session chairs and discussants. Without volunteers like you, the NERA conference would not be successful. In addition, I am extremely grateful to Tia Fechter, our NERA treasurer, for all of the hard work she has done to support the organization, and to numerous former NERA leaders, for their invaluable guidance throughout my tenure as president. I would like to extend my appreciation to our generous Institutional Members as well, for your financial support in making the conference possible.

Hoping everyone has a great NERA 2021 conference, Steven Holtzman, Your NERA President



# *Building the* Future of Assessment

We are the world's learning company, driven by a mission to help people make progress in their lives through learning. We are educators, parents, research scientists, technology experts, and content specialists. Our technology-powered assessment tools, content, products, and services support millions of teachers and learners every day. Having delivered more than 100 million online tests for district, state, and national customers, we are committed to inspiring and supporting a lifelong love of learning. Because wherever learning flourishes, so do people.



# LEARN MORE AT PearsonEd.com/future-of-assessment

800-627-7271 Pearson Assessments.com Copyright © 2021 Pearson Education. All rights reserved.

# Welcome from the 2021 Conference Committee

When NERA members, old and new, gathered at the Trumbull Marriott in October 2019, it would have seemed incomprehensible that the next two NERA conferences would not take place in those same familiar surroundings. Even as we learned how to navigate the online conference app that the 2020 co-chairs heroically put together under intense time pressure and uncertainty, we thought, "Surely next year things will be back to normal!" Yet we find ourselves once again attending the NERA conference virtually, wishing that we could be together in person, but knowing that the need to accommodate the safety of our membership and unique circumstances of this time means that we cannot.

We are so grateful for your understanding as we spent months debating the best format for the conference before finally arriving at the decision to go fully virtual. You completed multiple surveys, provided feedback, and remained patient as we carefully took into account the current pandemic landscape. Thank you! As always, the strength of NERA is its membership, and we appreciate all of your support.

Fortunately, we've had over a year to think about what a virtual conference might look like and are so excited to be able to provide you with multiple ways to attend sessions and interact with your fellow attendees! We're using a new virtual platform this year – Cvent – which will host our sessions in a way that is interactive and user friendly. We are also excited to introduce Gather.Town to facilitate socialization and networking. If you haven't already, be sure to watch the introductory instructional video, read the Gather.Town FAQ, and attend the Gather.Town session at the beginning of the conference to learn more about this fun platform and how use it to its full potential. Our bodies might not be able to be in the Trumbull Marriott, but our 8-bit avatars can be!

We're also taking advantage of the virtual format to offer three full days of conference programming on Wednesday, Thursday, and Friday. We have a sensational lineup of invited keynote speakers, panels, and workshops, all of which support our conference theme of *Using Data to Solve Education's Challenges*. Besides these great sessions, we have many excellent individual paper sessions, poster sessions and roundtable sessions covering a wide range of topics, and of course, it wouldn't be NERA without fabulous entertainment and socialization opportunities. The party doesn't stop at the end of the day, so please plan to join us for as many social events as you can! Our goal is for everyone to leave the conference feeling like they got the full NERA experience – or at least, as full as possible in a virtual setting.

So, with that, we'll sign off so that you can start enjoying NERA 2021. If you see us around during the conference, please don't hesitate to say hello. We're so glad you're here!

- Your 2021 NERA Conference Co-Chairs

Hank Johnson



4

Haifa Matos



Elisabeth Spratto



Jonathan Steinberg



NERA 2021

Using Data to Solve Education's Challenges

# **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.

# **NERA 2021 Sponsors**

We extend our sincere appreciation and gratitude to our generous organizational and institutional sponsors. Without their support, the 52nd Annual NERA Conference would not be possible. Information about our sponsors can be found throughout the program.

# Diamond

Pearson www.pearson.com

# Platinum

The American Board of Surgery www.absurgery.org

Cognia www.cognia.org

College Board www.collegeboard.org

edCount, LLC www.edcount.com

Educational Testing Service www.ets.org

HumRRO www.humrro.org

The National Center for the Improvement of Educational Assessment www.nciea.org

Johnson & Wales University www.jwu.edu

# Gold

ACS Ventures www.acsventures.com

American Board of Internal Medicine www.abim.org

Buros www.buros.org

Curriculum Associates www.curriculumassociates.com

Endicott College www.endicott.edu

James Madison University www.jmu.edu

National Board of Medical Examiners www.nbme.org

University of Massachusetts-Amherst www.umass.edu



















# **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.

#### EDUCATOR-AS-RESEARCHER AWARD

The EAR Award recipient is a teacher (PK-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.

# **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.

Barber, Glynis Barnshaw, John Bashkov, Bozidar Billups, Felice Bochenek, Jennifer Bonjo, Lautie Boudreaux, Mary Choi, Joanne Davis, Beth Delcourt, Marcia Donaldson, Maleka Durwin, Cheryl Gates, Miriam Gittman, Elizabeth Henderek, Jerusha Jakubowski, Casey Jung, HyunJoo Kirk, Lisa Lawrence, Salika Lee, Mina Leventhal, Brian Manly, Catherine Mayger, Linda McIlvaine, Jennifer McKinley, Tabitha Mitra, Sophia Natow, Rebecca Niccoli, Anne

Nolan, Katherine Ober, Teresa O'Donnell, Francis Park, John Jongho Patelis, Thanos Rewley, Kelly Reynolds, Katherine Rivers, Yevgeniya Rubright, Jonathan Satkus, Paulius Saxton. Mike Slear, Susan Smith, Hannah Soutter, Madora Speno, Matthew Stone, Elizabeth Tagare, Deepti Tendhar, Chosang Thompson, Kathryn Tran, Que Waterbury, Tom Windorf, Michael Wolter, Michael Yu, Xiaoran Zagata, Elizabeth Zenisky, April Zimmerman, Whitney



We clear the path to college.

It's our mission to make sure every student who wants to go to college has a clear path to get there. So everything we offer—from classes to tests to scholarships—is all about giving more students more access to more opportunities.

## collegeboard.org

 $\mathbf{\hat{a}}$  CollegeBoard

© 2021 College Board.

## SPONSOR, 2021 NERA CONFERENCE

# cognia

@ 2021 Cos

nia, Inc.

# Expanding opportunities for every learner

Learn about us at cognia.org

# edCount is pleased to sponsor NERA

#### Dedicated to Equity and Excellence for All Students

#### PRACTICE AREAS

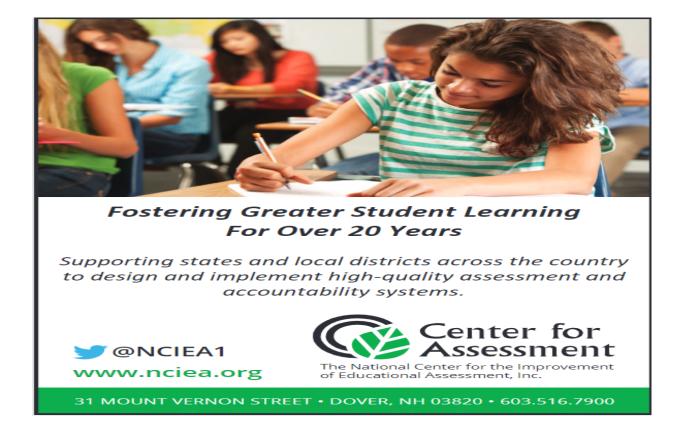
- Standards, Assessment, and Accountability
- Students with Disabilities
- Emerging Bilingual Students

#### SERVICES

- Test Design and Development
- · Policy Analysis & Technical Assistance
- Validity Evaluation & Technical Documentation
- Educator Supports
- Project Management



edCount 1800 Diagonal Road, Suite 600 | Alexandria, VA 22314 www.edCount.com | (202) 895-1502 | info@edCount.com www.edCount.com | (202) 895-1502 | info@edCount.com







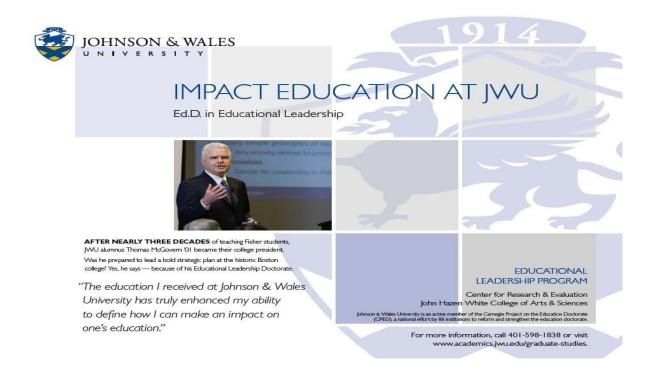


# THE AMERICAN BOARD OF SURGERY

#### 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**

1

Location	Virtual Conference The NERA 2021 Conference can be accessed through your Cvent account and through Gather.Town.
	Paper sessions, symposia, keynotes, workshops, and a few special events like the NERA board meeting and the awards ceremony will be hosted in Cvent. Cvent sessions can be accessed <i>either</i> through your My Event website (also called Attendee Hub) in Cvent <i>or</i> by going to the assigned virtual room in Gather. Town and interacting with the projector screen at the front of the room.
	Gather.Town will be used for roundtable sessions, poster sessions, socials, and entertainment events. Gather.Town can also be used to access presentation sessions if you so choose, and is a great place to socialize with friends and colleagues! To access Gather.Town, there is a link provided at the bottom of your personalized My Event page in Cvent, and the link was also included in your registration confirmation email. The link is also provided in various other places throughout Cvent, including some session descriptions and in the "More" tab in your My Event page.
	You can find detailed instructions for using both platforms in your personalized My Event page in Cvent. By accessing the pages listed under the "More" tab at the top of the My Event homepage, and you will be able to download the instructions documents.

# **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	<ul> <li>President: Steven Holtzman, Educational Testing Service</li> <li>President-elect: Nina Deng, Kaplan Test Prep</li> <li>Past President: Ross Markle, DIA Higher Education</li> <li>Collaborators</li> <li>Secretary: Katrina Roohr, Educational Testing Service</li> <li>Treasurer: Tia Fechter, Defense Personnel Assessment Center</li> </ul>
Board of Directors	Bo Bashkov, (2020-2023) <i>IXL Learning</i> Tabitha Bellamy, (2020-2023) <i>New Jersey Department of</i> <i>Education</i> Marcia Delcourt, (2019-2021) <i>Western Connecticut State</i> <i>University</i> Juliette Lyons-Thomas, (2018-2021) <i>Educational Testing Service</i> Francis O'Donnell, (2019-2022) <i>NBME</i> Johnathan Rubright, (2020-2022) <i>NBME</i> Matthew Speno (2020-2022), <i>University of</i> <i>New England</i>
NERA Researcher	Barbara J. Helms, Independent Consultant
<b>Co-Editors</b>	Kate Nolan, Curriculum Associates
NERA Webmaster	Jerusha Henderek, NBME
2021 Conference	Hank Johnson, New England Institute of Technology
Co-Chairs	Haifa Matos, Educational Research Consultant
	Elisabeth Spratto, <i>HumRRO</i> Jonathan Steinberg, <i>Educational Testing Service</i>
2022 Conference Co-Chairs	Kate Nolan, <i>Curriculum Associates</i> Frank Padellaro, <i>Cognia</i> Beth Perkins, <i>James Madison University</i> Duy Pham, <i>ETS</i>

# **NERA Standing Committees**

#### **Communications** Committee

Chair: Mina Lee, University of Massachusetts-Amherst Members: Yu Bao, James Madison University Heather Harris, Independent Consultant Jerusha Henderek, NBME Dukjae Lee, University of Massachusetts-Amherst Frank Padellaro, Cognia

#### Infrastructure Committee

Chair: Beth Perkins, James Madison University Members: Alia Ammar, Drexel University Tia Fechter, Defense Personnel Assessment Center Jerusha Henderek, NBME Kelly Rewley, American Board of Internal Medicine Paulius Satkus, James Madison University Jonathan Steinberg, Educational Testing Service Siyu Wan, University of Massachusetts-Amherst

#### **Nominations Committee**

Chair: Ross Markle, DIA Higher Education Collaborators Members: Rochelle Michel, Curriculum Associates Javarro Russell, Association of American Medical Colleges April Zenisky, University of Massachusetts-Amherst

#### Graduate Student Issues Committee

Chair: Matthew Speno, University of New England Members: Beth Perkins, James Madison University Jesus Aceves Loza, Fordham University Pamela Mikaelian, Central Connecticut State University

#### <u>Membership Committee</u>

Chair: Rory Lazowski, College Board Members: Kathryn Thompson, James Madison University Aubry Threlkeld, Endicott College Michael Wolter, Goodwin University

# **NERA Award Committees**

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

Chair: Frank Daniello, Lesley University

#### Members

Jody Piro, Western Connecticut State University Marcia Delcourt, Western Connecticut State University Catherine (Katie) O'Callaghan, Western Connecticut State University

#### **Educator-as-Researcher Award**

Chair: Salika Lawrence, *The College of New Jersey* 

#### Members:

Rochelle Michel, *Curriculum Associates* John Shekitka, *Manhattanville College* Julio Vazquez, *North Salem Central School District* 

#### Leo D. Doherty Memorial Award

Chair: April Zenisky, University of Massachusetts-Amherst

#### Members:

Steven Holtzman, Educational Testing Service Sara Finney, James Madison University Darlene Perner, Bloomsburg University of Pennsylvania Elizabeth Stone, Educational Research Consultant

#### **Lorne H. Woollatt Distinguished Paper** Chair: Rochelle Michel, *Curriculum Associates*

#### Members:

Katie Filling, Baltimore County Public Schools Maria Finger-Elam, Baltimore County Public Schools Johan van der Jagt, Bloomsburg University of Pennsylvania Adele Macula, New Jersey City University

# **NERA Ad Hoc Committees**

#### **Conference Ambassadors**

Chair: Pamela Kaliski, American Board of Internal Medicine

#### Members

Carol Barry, American Board of Surgery Whitney Coggeshall, American Board of Internal Medicine Kate Nolan, Curriculum Associates Charles Ogundimu, NCIS Thai Ong, NBME Aubry Thelkeld, Endicott College

#### **Site Selection**

Chair: Nina Deng, Kaplan Test Prep

#### **Membership: Underrepresented Groups** Chair: Madison Holzman, *Curriculum Associates*

<u>Members</u> Rebecca Natow, *Hofstra University* Charles Ogundimu, *NCIS* 

#### **Strategic Planning**

Chair: Ross Markle DIA Higher Education Collaborators

# **Keynote Speaker**

# **Sarah Cohodes**



Sarah Cohodes is an Associate Professor of Economics and Education at Teachers College, Columbia University. She is also a Faculty Research Fellow at the National Bureau of Economic Research, a Faculty Affiliate at the Abdul Latif Jameel Poverty Action Lab, and a Faculty Affiliate at the MIT School Effectiveness and Inequality Institute. She is a co-editor at the Journal of Policy Analysis and Management. Her research uses quantitative causal inference methods to evaluate policies and programs that are intended to increase access to high-quality education. She is particularly interested in how young people and their families make choices about education and how school and college quality interact with those decisions. She holds a Ph.D. in Public Policy from Harvard University, an Ed.M. in Education Policy and Management from the Harvard Graduate School of Education, and a B.A. in Economics from Swarthmore College.

# **Keynote Speaker**

# Jennifer Bell-Ellwanger



Jennifer Bell-Ellwanger is the President and CEO of the Data Quality Campaign, a nonprofit policy and advocacy organization leading the effort to ensure that educators, families, and policymakers are empowered with quality information to make decisions that ensure students excel.

Prior to DQC, Jennifer served at the U.S. Department of Education first as director of the Policy and Program Studies Services and later as Acting Assistant Secretary for the Office of Planning, Evaluation, and Policy. In these roles, Jennifer led a team of researchers and policy analysts to provide analytic support and research expertise to enable department staff to make evidencebased decisions, inform policy development by analyzing data, and conduct objective reviews of department products, all with an eye to making informed decisions that benefit America's students.

After beginning her career as a kindergarten and first-grade teacher in Bronx, New York, working directly with underserved students, Jennifer brought her classroom experience to the central office of the New York City Department of Education, where she served as senior advisor to the chancellor and executive director of research and policy support. In 2012, Jennifer joined the Baltimore City Public Schools first as chief achievement and accountability officer and then as the interim chief of staff for the Baltimore City Public Schools, leading the district through a change of administration while continuing to help it stay focused on student achievement.

# **Conference Sessions**

# Wednesday, October 13, 9:00 – 11:00 AM

# Session 0.1: CONDUCTING QUALITATIVE RESEARCH IN A QUANTITATIVE WORLD

Workshop

Merritt North

Facilitator: Felice D. Billups, Johnson & Wales University

This workshop is designed for individuals who plan to conduct - or have conducted - a qualitative project but need to explain the value, quality, rigor, and verity of the approach to diverse audiences and stakeholders. In a world where numbers and statistical analyses are often seen as the only true representation of valid research, qualitative researchers need a strategy to persuade skeptics that qualitative research is legitimate and the findings are actionable. Topics will comprise comparing the qualitative worldview with quantitative and mixed methods approaches; qualitative sampling and sample sizes; trustworthiness strategies to ensure rigor and quality in qualitative projects; researcher positionality and bias considerations; and a review of qualitative terminology. Graduate researchers and researchers new to the qualitative approach may find this session particularly helpful.

# Wednesday, October 13, 9:45 – 11:00 AM

## Session 0.2: ALLYSHIP Workshop

Merritt South

Facilitator: Aronté Bennett, Villanova University

This workshop is dedicated to helping us understand the ways in which we can be allies for those who are marginalized or otherwise rendered voiceless. The foundation of the session is laid by defining allyship, with particular attention paid to differences in how it presents in corporate versus academic spaces. The discussion will then move to consideration of the aspects of our identities that permit us to serve as allies versus what makes us candidates for allyship. The workshop will conclude with tips, ranging from simple actions to advanced advocacy, ensuring that all attendees walk away with an approach appropriate for their position on the journey toward being an ally.

## Wednesday, October 13, 11:00 AM – 12:00 PM

Session 1: WELCOME AND INTRODUCTION TO GATHER.TOWN Welcome Session Ballroom

Facilitators: Steven Holtzman, NERA 2021 President, Hank Johnson, Haifa Matos, Elisabeth Spratto, and Jonathan Steinberg, NERA 2021 Conference Co-Chairs

# Wednesday, October 13, 1:00 PM – 2:00 PM

Session 2: INVITED KEYNOTE Plenary Session

Ballroom

Keynote Speaker: Sarah Cohodes, Teacher's College, Columbia University

#### Session 3.1: HIGHER EDUCATION IN THE ONLINE ENVIRONMENT

#### Paper Session

Concord

Chair: Madison Holzman, Curriculum Associates

Discussant: Bo Bashkov, IXL Learning

# Examining the Structure of Students' Perceptions of Community in an Online Introductory Statistics Course

First Author: Whitney Zimmerman, The Pennsylvania State University

Online introductory statistics students completed the Community of Inquiry (CoI) Survey. It was hypothesized that the original three-factor structure based on the CoI Framework would not be a good fit because of this course's design. That hypothesis was supported by a CFA, which was followed up with an EFA.

#### Differences in EdTech Self-Efficacy and Online Student Learning Experiences Across Higher Education Institution Types

First Author: Nicole Barbaro, WGU Labs Secondary Author: Omid Fotuhi, WGU Labs

Across four higher education institutions (N=684) we found that EdTech self-efficacy robustly predicted students' online learning experience and found that students at fully online universities had higher EdTech self-efficacy and more positive learning online learning experiences than students at traditional institutions that transitioned to online learning in 2020.

# The Relationship Between Student Success and Cohort-Based Models for Students Taking Online Courses in Higher Education

First Author: Marilyn Portilla, Goodwin University Secondary Author: Michael Wolter, Post University

The researchers have conducted a meta-analysis to explore the relationship student success and cohort-based models for students taking online courses in higher education institutions in the United States. This study reviews what cohort-based models for students taking online courses in higher education during the pandemic and its impact.

## Session 3.2: CREATIVE APPROACHES IN SURVEYS AND TESTING

Paper Session

Hartford

Chair: Sarah Ferguson, Rowan University

Discussant: Sarah Ferguson, Rowan University

## Outlier and Anomaly Detection of Survey Responses using Machine Learning Methods

First Author: Jennifer Bochenek, Educational Testing Service

This project presents several methods of identifying outliers and anomalies using unsupervised machine learning algorithms in python. These methods include isolation forests, DBSCAN, and k-means clustering, and comparing the results to Mahalanobis distances and IQR. Results are done at the participant and variable level, in addition to within group analysis.

#### **Response Option Imputation for Multiple-Choice Items**

First Author: Kathryn N. Thompson, James Madison University

Various methods have been proposed to deal with missing item responses on multiple-choice items. In this study, I explored imputing missing item responses using a polytomous item response theory model. I found that item analysis indices were less biased and more efficient using an imputation model compared to listwise deletion.

#### An Investigation of the Impact of Item Pool Characteristics on MST-RT

First Author: HyunJoo Jung, University of Massachusetts-Amherst Secondary Author: Minhyeong Lee, University of Massachusetts-Amherst

This study explores the impact of item pool characteristics, such as pool sizes and item difficulties, on multistage test design with response time (MST-RT) which is recently proposed by Park (2020). We examine how different item pool characteristics affect the measurement precision of MST-RT.

# Wednesday, October 13, 2:15 – 3:45 PM

## Session 3.3: EDUCATIONAL OPPURTUNITIES THROUGH MIXED REALITY SIMULATION: USING DATA TO INFORM TEACHER EDUCATION PROGRAMS

Symposium

Montpelier

Organizer: Jody Piro, Western Connecticut State University

Presenters: Ashley Sullivan, Emily Kilbourn, Eric Mendelson, Gloria Rosati-Peterson, Western Connecticut State University

The purpose of this session is to discuss four studies that investigated the use of mixed reality simulations within a pre-service teacher program. Various designs were used, including two qualitative case studies and two mixed method studies.

The first study used a convergent parallel mixed method design. There were three research questions. RQ1: What is the effect of emotional awareness exercises on empathy and adaptiveness in coping for pre-service teachers who participate in mixed reality simulation experiences? RQ2: How do preservice teachers participating in a mixed reality simulator perceive the importance of emotional intelligence and more specifically emotional awareness? RQ3: To what extent do the quantitative and qualitative data converge? How and why?

The research design for the second study was an interpretive case study. The intent was to explore how preservice teachers understood the formation of their teacher identities within the notion of liminality.

The third study, a qualitative multicase study, examined student perceptions of a written feedback intervention that utilized data, formative, and caring feedback to promote feedback literacy in an undergraduate pre-service teacher program using simulation.

Lastly, the purpose of the fourth study, a mixed method embedded design, was to examine the effect of a treatment package consisting of video and reflection, video feedback, and coaching on pre-service teachers' use of nonverbal immediacy behaviors as they delivered lessons to student avatars in mixed reality simulations.

# Wednesday, October 13, 2:15 – 3:45 PM

## Session 3.4: DEVELOPING INTERCULTURAL AND GLOBAL COMPETENCIES FOR TEACHERS THROUGH GLOBAL EDUCATION

Invited Symposium

Providence

Chair: David Moss, University of Connecticut

Discussant: Jon Simmons, University of Connecticut

Presenters: Laura Baecher, Hunter College; Helen Marx, Southern Connecticut State University; Shannon Brennan, University of Kentucky College of Education; Ellie Holiday, University of Kentucky College of Education; Danielle Carrier, University of Georgia; Elizabeth Yomantes, Seaver College; Clara Bauler, Adelphi University; Devin Thornburg, Adelphi University; Xiao-Lei Wang, Adelphi University; Jon Simmons, University of Connecticut

Global Education is an umbrella term that we consider to include two key components: teacher education study abroad experiences and the development of intercultural competence. This session will provide opportunities for participants to consider global education experiences in new ways whether they are just beginning to learn about global education or they have been previously engaged in this work. The session will explore research trends from the last 10 years and consider goals for the future with the principal aim of facilitating global education programs in institutions of higher education.

## Session 3.5: NOVEL RESEARCH METHODS (IN GATHER.TOWN ONLY)

#### Roundtable

Off Lobby (Roundtable #1)

Chair: Darren Fleischer, DC State Board of Education

Using Autoethnography to Uncover the Educational Implications of the Pandemic First Author: Lisa Wisniewski, Goodwin University Secondary Author: Wendy Jean Sonstrom, LEARN

In the new era of education, one that is likely to have a significant technological presence for the coming years, it is important to include the experience of the educator. This paper is focused on the educator experience during the COVID 19 pandemic.

**Texting and Internet Languages and Standard English: Friends or Foes in the Classroom?** First Author: Kelli McDonough, Howard County Public School System (Centennial High School)

With the rise of the internet, new forms of language have changed our daily communication. As educators, we are often faced with a dilemma in our classrooms as to how to understand, value, and potentially use these new language constructs. This paper will provide suggestions and tools for their inclusion.

## Wednesday, October 13, 2:00 - 5:00 PM

# Session 3.6: PLOT YOUR DATA, PLOT YOUR DATA, PLOT YOUR DATA: BASIC AND ADVANCED DATA VISUALIZATION IN R

#### Workshop

Merritt North

Facilitators: Monica Erbacher, James Smith, Sergio Castro, University of Arizona

This workshop will cover data visualization techniques in R. First, presenters will quickly walk through the basics of the R language as attendees import a data set and create more basic plots like histograms, box plots, bar plots, and scatter plots with legends and other extras. Then, we will move on to more advanced plotting functions, such as those in the ggplot2 package. Attendees will create more complex versions of the basic plots covered as well as more advanced graphics such as overlapping density curves. Visualization techniques will address exploring linear and nonlinear trends, multilevel data, comparing groups, and getting to know your data. Best practices in creating plots will be demonstrated throughout. We will end with time for attendees to create visualizations using their own data, or attendees are welcome to practice with a provided data set. Attendees are welcome to use their own data throughout, if that is preferable. This workshop is most appropriate for new, novice, and intermediate R users who are not familiar with more advanced packages like ggplot2. If you are familiar with the basics of R and with base plotting functions, you are welcome to skip the introductory part and join in for the rest of the workshop.

## Session 4.1: SOCIAL-EMOTIONAL LEARNING

## Paper Session

Chair: Sandra Silva-Enos, University of Connecticut NEAG School of Education

Discussant: Loretta Mason-Williams, Binghamton University

# Emotional Intelligence: A Predictive Factor in Educator Attitudes Toward Students with Social and Emotional Challenges

First Author: Erin Custadio, Town of Falmouth Public Schools, Falmouth, MA

This multiphase, mixed-methods study utilized Q-methodology to investigate teacher attitudes toward students with challenging behavior. The study identified attitude patterns among participants with varied trait Emotional Intelligence levels. The results revealed those with the lowest levels of tEI were the least tolerant of students with ADHD and other behavioral challenges.

# Transformative Social-Emotional Learning in Online Spaces: The Role of School-Level Decision-Making

First Author: Madora Soutter, Villanova University Secondary Authors: Chu Ly, Framingham State University; Zoe Darazsdi, DiAinni Dennis, Amanda Adams, Villanova University

The present study explores the ways in which transformative SEL, a form of SEL specifically focused on promoting equity (Jagers et al., 2019), can be enacted in online spaces, and the ways in which school-level decision-making plays a role in both supporting and hindering these efforts.

# Stories of Transformative Social-Emotional Learning in Online Spaces: The Barriers and Supports for Families, Teachers, and Children

First Author: Chu Ly, Framingham State University Secondary Authors: Madora Soutter, Villanova University; Zoe Darazsdi, DiAinni Dennis, Amanda Adams, Villanova University

This research presentation explores how transformative social and emotional learning (TSEL), a form of SEL specifically focused on promoting equity, can be implemented in online spaces. Using in-depth case studies of families, teachers, and children, this paper explores the barriers and supports of TSEL in online spaces.

Concord

## Session 4.2: ENGLISH LEARNERS IN THE CLASSROOM

Paper Session

Hartford

Chair: Andrea Conover, Duanesburg Central School

Discussant: Jolene Battitori, Centenary University

#### **Impacts of Prolonged English Learner Status on Students in a Large Maryland County** First Author: Jennifer Carlson, Anne Arundel County Public Schools

Long-term English learners (LTELs) are students who have been classified as English Learners for more than six years. Results from this mixed-methods study showed that prolonged EL status has both positive and negative effects on students' linguistic and academic performance, coursework, and overall perceptions of school.

#### **Do Exiting English Language Students in the Second Grade have Positive Growth Trajectories Post Exit?**

First Author: Melissa Didonato, Baltimore County Public Schools Secondary Author: Mark Fenster, Notre Dame of Maryland University

A quantitative research design evaluated the extent that ACCESS for ELLs 2.0 is predictive of future academic success when students exit from ESOL. Results showed that students who exited ESOL services in the second grade outperformed a comparison group of non-ELL native English speakers on every indicator analyzed.

#### The Lived Experience of English Learners: Relegated to a Separate Room

First Author: Alicia Storey, Westerly Public Schools

This phenomenological study explored the lived experiences of former ELL students who now work in the field of education. The research sought to understand participants perceptions while classified ELL. These perceptions may deepen understanding of the potential stigma of ELL classification, inform policy, practice, professional learning and address inequities.

# Session 4.3: COLLEGE SELECTION AND OUTCOMES (IN GATHER.TOWN ONLY)

Roundtable

Off Lobby (Roundtable #1)

Chair: Steven Holtzman, Educational Testing Service

#### Analyzing College Match for 'Selective' Students in Connecticut

First Author: Stephanie Fakharzadeh, Connecticut RISE Network

This exploratory descriptive study examined college match for a sample of 2,826 members of the high school class of 2019 in Connecticut. Students in the 'selective' category had fewer in-state options and less frequently matched. Since fewer students of color went out-of-state, equity concerns arose.

# Hiatus From University: A Quantitative Analysis of Stopping Out, Field of Study, and Persistence

First Author: Sherri Dell, Notre Dame of Maryland University

The current study will focus on stop-out behavior at four-year universities and explore relationships between stopping out and field of study, timing of stop out behavior within each field, and stopping out to persistence. The goal is to provide analysis for universities to assist students in consistent attendance until graduation.

# Systems Thinking Perspective: How Data Can Improve University Student's Post-College Outcomes

First Author: Anthony Vinci, Central Connecticut State University Secondary Authors: Bryan Southworth, Todd Hampton

In this roundtable discussion, three doctoral students with specializations in mentoring, the future of work, and systems thinking, will discuss the importance of how data from these sources can improve college student's ability to navigate the twenty-first century.

## Session 5.1: UNIQUE PERSPECTIVES IN RESEARCH

Paper Session

Concord

Chair: Xiaoyun Song, University of Massachusetts-Amherst

Discussant: Amber O'Shea, Penn State University

#### Framing Strikes: A Case Study of Media Depictions of Two Teacher Strikes

First Author: Jamie Gillespie, The Friday Institute for Educational Innovation, North Carolina State University

I examined how the media framed two teacher strikes - Seattle in 2015 and Chicago in 2012 - using critical discourse analysis. My findings indicate that overwhelmingly negative framing of the strike in Chicago likely impacted the less successful negotiations outcomes.

# Proposing the Sociocultural Voice Framework as a Writing Model and Validating the Developmental Voice Rubric

First Author: Raymond Pape, Hamilton-Wenham Regional High School

Guided by Dalkey and Helmer's (1963) Delphi Method for developing a rubric through collaboration, the researcher has incorporated input from English teachers and college professors through several rounds of inquiry toward constructing and validating a developmental rubric that facilitates his writing model to answer the question 'Can voice be taught?'

#### Three Distinctions of the Heideggerian Phenomenological Research Method

First Author: Son T. H. Pham, Stephen F. Austin State University

The paper uniquely presents the three distinctions of Heideggerian thoughts in conducting interpretive phenomenological research: (1) realizing the problem of identity; (2) recognizing the inadequacy of ontology; and (3) interpreting the subject matter through critical historicity. Discussion and recommendations for conducting a proper phenomenological investigation are also provided.

### Session 5.2: AAPI INDIVIDUALS IN EDUCATION

Paper Session

Hartford

Chair: LeTanya Lawrence, University of Bridgeport

Discussant: Sue Williams

# Uncovering the Model Minority Narrative: A Case Study on Asian American Students in High-Achieving Secondary Schools

First Author: Joanne Choi, Therapy Source

Asian American students in high-achieving secondary schools face pressures to adhere to academic expectations of high achievement based on the 'Model Minority' stereotype, a term coined by William Petersen. My paper discusses methods for educators to address the unique challenges of high-achieving Asian American students through culturally responsive teaching.

#### **School Readiness Beliefs and Practices of Chinese Immigrant Parents**

First Author: Xiaoran Yu, Lehigh University Secondary Author: Peggy Kong

The study recruited Chinese immigrant parents of preschoolers who were going to attend kindergarten the following year. The study explored how Chinese immigrant parents living in a small metropolitan area understand and prepare their children for kindergarten in the United States.

#### Data-Driven Decision-Making: PBL Setting to Impact Native Hawaiian Underrepresented Youth Career Interest

First Author: Nahid Nariman, Transformative Inquiry Design for Effective Schools and Systems Secondary Author: Jaymee Nanasi Davis, UH Maui College; David Reider, Education Design

Project STEMulate -NSF ITEST grant-funded study, leveraged the well-established Upward Bound program to stimulate STEM interest of high school students through a hands-on summer course. This presentation presents the role data played in the development, implementation, and research of this innovative and industry-aligned STEM curricula designed for underrepresented students.

## Session 5.3: NOVEL TEACHING APPROACHES

Paper Session

Montpelier

Chair: Nina Deng, Kaplan

Discussant: Seokhee Cho, St. John's University

#### A Case Study of the Perceived Influence of Visual Thinking Strategies on Teacher Practice

First Author: Jody Piro, Western Connecticut State University Secondary Author: Christina Connors, Western Connecticut State University

The purpose of this session is to discuss a study that explored the influence of the use of visual thinking strategies (VTS) on teachers' perception of their general teaching practice. To investigate the experience of teachers using VTS, a qualitative, multiple case study was conducted.

# An Exploration of Therapy Dogs in Educational Settings as Described by Multiple Stakeholders

First Author: Marcia A. B. Delcourt, Western Connecticut State University Secondary Author: Lauren Moyer, Western Connecticut State University; Frank LaBanca, Danbury Public Schools; Katherine Roe, Western Connecticut State University

In education, therapy dogs are used in a variety of manners, such as reading assistance programs, stress reduction visits, or ambassadors after community trauma. In this multi-case study, the experiences of representatives from nationally recognized therapy dog programs, therapy dog handlers, school site coordinators, and students were investigated.

## Session 5.4: UNIQUE CHALLENGES IN K-12 SCHOOLS

### Paper Session

Providence

Chair: Mary Kalliny, Rowan University

Discussant: Michael Wolter, Post University

# **Re-Examining School Safety Practices and Policies Amid Calls for Social and Racial Justice**

First Author: Heather Reynolds, SUNY/Empire State College

Research focused on the negative impact punitive school safety practices have on BIPOC students will be explored as well as promising, inclusive programs. Recommendations for developing evidence-based, inclusive school safety practices through district-wide participation in the collection/analysis of data and the role of Institutes of Higher Education will be discussed.

# Teaching, Working, Caring, Healing: How Teachers Define Trauma-Informed Urban Schools

First Author: Julie McIntyre, Temple University

I investigate how teachers' histories, motivations, and social identities like race and gender shape their understandings of being 'trauma-informed.' I employ sociological theories regarding care work and emotional labor across racial and cultural groups to understand the tensions of enacting trauma-informed practices and policies as a teacher.

### Session 5.5: GSIC JOURNEYS

## **GSIC** Sponsored Session

Merritt South

Facilitator: Mathew Speno, University of New England

For many graduate students, pursuing a doctorate can be both exciting and terrifying at the same time. While doctoral candidates are provided with a support system during their dissertation journey, organizations like NERA can provide further support and collegiality along the way.

The Graduate Student Issues Committee provides opportunities for graduate members of NERA to develop relationships with colleagues that range from those who are in the dissertation process to those who are putting their degree to "work!"

With all the change that our world has experienced due to the Covid-19 pandemic, the current GSIC membership are keen to understand how dissertation journeys have been impacted and how the GSIC can continue developing a forum for continued graduate student support.

The panel includes individuals who represent various stakeholder groups involved in the dissertation journey. Dr. Cynthia Kennedy, Dr. Pamela Mikaelian, Jesús Aceves Loza, and Matthew Speno will share their unique experiences of engaging in and supporting the doctoral journey.

# Wednesday, October 13, 5:15 – 6:15 PM

## GRADUATE STUDENT ISSUES COMMITTEE SOCIAL (IN GATHER.TOWN ONLY) Social

Beach

Are you a graduate student? Join the NERA Graduate Student Issues Committee for a social on the beach in Gather.Town to meet and network with your fellow students!

You can access Gather.Town using the link you received in your email, or at the bottom of your personalized event website in Cvent. Use the virtual hotel map in Cvent, or here in the conference program to find the beach!

## CALCULATIONS AND COCKTAILS (IN GATHER.TOWN ONLY) Social

Please join the NERA Cocktail Queen, Tabitha Bellamy (McKinley), as she demonstrates how to make delicious libations to enjoy with your NERA friends!

Beach

The pandemic presented NERA member, Tabitha Bellamy (McKinley) with a unique opportunity to develop a new skill-bartending and mixology. With her studies through various online classes as well as her memberships in the Philadelphia chapter of Women Who Whiskey and The Black Bourbon Society, she has been able to chart a new course for the creation of spirits.

She combines her expertise of Biology, Inorganic, and Organic Chemistry to invent new cocktails that provide her class attendees the benefit of enjoyment without the calories or preservatives that lead to weight gain (and comorbidities due to obesity). Since last year, she has taught virtual cocktail classes for anniversary parties, birthday parties, family reunions, sorority functions, and women's club events all over the nation.

The drinks are as follows:

SASsy Sangria Data-Driven Daquiri Hypothesis Hot Chocolate

See below for the ingredient list so that you can follow along and create your drinks at home or just join in on the fun during the session and create them later!

## CALCULATIONS AND COCKTAILS

#### **Ingredient** List(s)

Cocktails 1/2 cup dry, red wine (such as Malbec, Cabernet or Merlot) 1 shot dark, spiced rum (mini/airplane bottle is fine) 1 shot white rum (mini/airplane bottle is fine) 1 shot whiskey (mini/airplane bottle is fine) 1 shot vanilla vodka (mini/airplane bottle is fine) 1 tbsp Hershey's dark chocolate syrup 1/4 cup apple cider cinnamon club soda lemon orange ice spoon or stirrer cocktail shaker

Mocktails 1/2 cup grape juice 3 tsp vanilla extract 1 tsp orange extract 1 tbsp Hershey's dark chocolate syrup 1/4 cup apple cider cinnamon club soda lemon orange ice spoon or stirrer cocktail shaker

## Thursday, October 14, 8:00 – 8:50 AM

## Session 6.0: NEW MEMBER BREAKFAST (IN GATHER.TOWN ONLY) Social Ballroom

Are you new or new-ish to NERA? Want to meet others just starting out in our amazing organization? Grab some breakfast and join the Conference Ambassadors and New Member committees for an informal virtual get-to-know-you in Gather.Town! You can access Gather.Town using the link you received in your email, or at the bottom of your personalized event website in Cvent. Use the virtual hotel map in Cvent, or here in the conference program to find the ballroom!

## Thursday, October 14, 9:00 - 9:50 AM

Session 7.1: WOMEN IN EDUCATION Paper Session

Concord

Chair: Jyoti Sharma, Cluster Innovation Centre, University of Delhi

Discussant: Olivia McNeill, University of Massachusetts-Amherst

# Connecting Identities and Experience: How White Women Commit to Racial Justice in STEM

First Author: Desiree Forsythe, University of Rhode Island

This paper shares the findings from a constructivist grounded theory study of 35 undergraduate and graduate white women in STEM who are committed to racial justice. This model shows the process in which white women in STEM connect their experiences and identities to their commitment within and outside of STEM.

#### Women in Sport Leadership: Factors Leading to Success

First Author: Elizabeth O'Hara, Assumption College

Female movements for equality are a growing trend. In order to advance women in the sport industry, we need to better understand what makes them successful. Therefore, this study will examine why some women succeed in the sport industry.

#### **Coaching for Equity in 21st Century Schools of Two Aspiring Female Educational Leaders** First Author: Mary Boudreaux, Southern Connecticut State University

Using a qualitative case study research design, I explored the e-coaching of two female minority aspiring educational leaders' experiences during COVID 19. Utilizing the lens of culturally responsive school leadership, I examined participants' experiences as they reflected and addressed issues of race, microaggressions, and systemic and structural inequity.

## Thursday, October 14, 9:00 - 9:50 AM

## Session 7.2: IRT AND CRT AND BAYES, OH MY!

Paper Session

Hartford

Chair: Sarah Ferguson, Rowan University

Discussant: April Zenisky, University of Massachusetts-Amherst

#### The Power of Historical Data in Bayesian Item Response Theory

First Author: Kathryn N. Thompson, James Madison University Second Author: Brian C. Leventhal, James Madison University

Bayesian statistics has been utilized more frequently due to the flexibility in estimating complex psychometric models. An important step is specifying a prior, which can be based on historical data (i.e., power priors). We examine the influence of power priors on convergence and precision of item response theory posterior distributions.

# A Comparison of Item Parameter Estimates and True Values When Simulating Item Responses in CAT

First Author: Kevin O'Rourke, University of Massachusetts-Amherst

Item parameter estimates are used in simulations of computerized adaptive tests to more realistically introduce error. That impact is compared with using true values, in terms of the bias and empirical standard error of the final theta estimates, as well as effects on test-length.

### Item Parameter Recovery With and Without The Use Of Priors

First Author: Paulius Satkus, James Madison University Second Author: Christine DeMars, James Madison University

Using Bayesian priors can help improve estimation of item parameters in the 3PL IRT model. However, if priors are mis specified, item bias can occur. When the mean of the most informative priors was mismatched to the items, non-negligible bias emerged, which was amplified in small sample size conditions.

## Session 7.3: TEACHER ENGAGEMENT AND RETENTION

Paper Session

Montpelier

Chair: Francis O'Donnell, NBME

Discussant: Natalie Duvall, University of the Arts

# Rethinking the Engagement of Educators: Envisioning a New Approach to Educational Research

First Author: Gary Natriello, Teacher's College Columbia University

This essay imagines educational research with practitioners as major participants. While the idea of involving educators in research has surfaced periodically, they are typically relegated to peripheral roles in a field dominated by university specialists. What opportunities might be created by placing educators in the center of the field?

# Is There an Additive Relationship Between the Amount of Teacher Leadership and Teacher Job Retention?

First Author: Jennifer Hernandez, Notre Dame of Maryland University Secondary Author: Mark Fenster, Notre Dame of Maryland University

Using Data from the School and Staffing Survey, we investigated the relationship between formal teacher leadership and teacher retention. Results showed the greater the number of teacher leadership positions, the greater the likelihood the teacher expects to continue to teach. We found statistical significant results, albeit with negligible effect sizes.

### **Teacher Perceptions of Principal Support and Teacher Self-Efficacy**

First Author: Marcia Delcourt, Western Connecticut State University Secondary Authors: Britany Kuslis, Pauline Goolkasian, Western Connecticut State University; Stephanie Wozniak, Putnam/Northern Westchester BOCES, NY; Wes J. DeSantis, Ridgefield Public Schools, Ridgefield, CT

Teachers' perceptions of their principal are related to how they view their profession and their own self-efficacy. This mixed-methods study was used to investigate the relationship between teacher perceptions of principal support and teacher self-efficacy. Study results have implications for certification programs in school leadership.

# Thursday, October 14, 9:15 – 10:45 AM

## Session 7.4: TRANSFORMING HIGHER EDUCATION USING COMPETENCY-BASED EDUCATION AND MICRO-CREDENTIALING Symposium Providence

Chair: Thanos Patelis, University of Kansas; Teacher's College, Columbia University

Presenters: Diane DiBacker, Jaclyn Dudek, University of Kansas; Carla Evans, Center for Assessment

This session will describe the components of competency-based education and micro-credentials in higher education. Presentations will describe the necessary components and value propositions for learners and consumers of micro-credentials, offer some innovations, and describe the research that should be done to ensure quality and provide evidence of efficacy.

First Presentation: Design of a competency-based educational program producing microcredentials. In this presentation, a higher education program will be described indicating the various components needed to ensure the success of the program and address the criticisms that historically have been raised about such programs. Additionally, this presentation will discuss the value of such programs for learners and recipients of the micro-credentials.

Second Presentation: Articulating the curriculum and competencies using learning maps. In this presentation, the use of learning maps and the process for their development will be described. The use of learning maps represents a major innovation in competency-based education. The articulation and visibility of the learning pathways empower the learner to visualize and have ongoing feedback in the learner's progress. Additionally, clear articulation of the competencies achieved, as depicted in the learning map, provide the instructor and recipient of the micro-credential useful, actionable information about the learner for entrance into sequent learning experiences and/or careers.

Third Presentation: Assessing and certifying achievement of competencies. This presentation will provide an overview of the assessment system, process for scoring, and mechanism to confer credentials of achieving the competencies (i.e., micro-credentials). The emphasis of this overview will be on the systems needed and scalable processes for scoring and establishing adequate performance levels.

Fourth Presentation: Evidence needed to support the design and efficacy. This presentation will indicate the types of research efforts needed to inform the design features of each component of the competency-education program, as well as its efficacy.

## Session 7.5: GLOBAL EDUCATION (IN GATHER.TOWN ONLY)

### Roundtable

Off Lobby (Roundtable #1)

Chair: Glynis Barber, Coppin State University

#### **Virtually Abroad: Assessing U.S. Undergraduates in COIL Virtual Exchanges** First Author: Adele Merlino, Notre Dame of Maryland University

In preparing undergraduates for today's global, collaborative world of employment, it is crucial higher education not only educate students in their chosen disciplines but in Intercultural Competency and Global Virtual Collaborative Teamwork. For these reasons, it is ever so important to assess COIL VE's impact on these skills.

# Global Citizens in the 21st Century Classroom: A Mixed-Methods Study of Motivational Aspects of Global Awareness

First Author: Robert J. Windorf, Independent Scholar

Inspired by today's increasingly challenging and interdependent global environment, this study utilized a convergent parallel mixed-methods design to examine a diverse group of high school students' (n = 172) reported motivational characteristics associated with their global awareness levels as a result of participating in a global-themed curriculum program.

### Session 8.1: TEACHER SUCCESS AND WELLBEING

### Paper Session

Concord

Chair: Patricia Buxton, University of Bridgeport

Discussant: Patricia Buxton, University of Bridgeport

# Relationship between Teacher Job Satisfaction, Workplace Climate, and Well-Being Resources in Early Childhood Education

First Author: Xiangyu Zhao, Johns Hopkins University

Early childhood teachers face many challenges from low job satisfaction to high turnover rates. The study explores the strategies to improve ECE teachers' job satisfaction from the program perspective. The results indicate that well-being resources, organizational climate, and diversity climate within the centers are positively correlated with teachers' job satisfaction.

### Mindset Predicting Mindfulness: Developing Professional Capacity

First Author: Jess Gregory, Southern Connecticut State University

This paper examines the relationship between mindfulness and mindset, and considers how the data might inform strategies used in the development of capacity. A national priority in education is to increase and to improve professional capacity, and the current global pandemic heightened the urgency.

### Social-Emotional Learning for Teachers: Holistic Well-Being as a Marker of Success

First Author: Madora Soutter, Villanova University Secondary Author: Joanna Timmerman, Eastern University

This research explores the ways in which teacher preparation programs can foster socialemotional learning for teachers as one contributing element of teacher longevity and success in the classroom.

## Session 8.2: COGNITIVE APPROACHES TO TESTING AND LEARNING

### Paper Session

Hartford

Chair: Siyu Wan, University of Massachusetts-Amherst

Discussant: Michael Baron, Cornell University and Northwestern University

### Investigating Methods to Identify Low Test-Taking Effort in Large-Scale Low-Stakes Assessments

First Author: Blair Lehman, Educational Testing Service Secondary Authors: Jonathan Steinberg, Fred Yan, Jesse Sparks, Jung Aa Moon, Jennifer Bailey, Educational Testing Service

Low test-taking effort (TTE) is a serious concern for the validity of low-stakes assessments, which makes it important to employ effective measures of TTE. We evaluated two TTE measures in the NAEP grade 12 mathematics assessment. Implications for how to contextualize conclusions from large-scale low-stakes assessments are also discussed.

# **Cognitive Science in Classrooms: Examining the Use of Cognitive Learning Strategies in Elementary Math**

First Author: Elida Laski, Boston College

The present study examined the extent to which elementary mathematics lessons are congruent with cognitive strategies for learning identified in cognitive science research. Factor and Rasch analyses show that the strategies operate as one construct, but there is variability in the likelihood of being observed in high congruence.

# Application of a Theory-Driven Approach to Detect Disengaged Test-Taker Behavior in Large-Scale Assessment

First Author: Burcu Arslan, Educational Testing Service

Bottom-up, data-driven response filtering methods that exclude unrealistically fast responses from scores have been successfully applied to improve test validity. Here, we introduce a top-down, theory-driven method to detect disengaged behavior, compare it with a data-driven method by using nationally representative reading assessment data, and discuss its potential and limitations.

### Session 8.3: UNIQUE TESTING CONSIDERATIONS

### Paper Session

Montpelier

Chair: Kelly Rewley, American Board of Internal Medicine

Discussant: Tabitha Bellamy, New Jersey Department of Education

# Translation Invariance in PISA 2018 Reading Literacy Items: Detecting DIF Using MGCFA and IRT-LR

First Author: Dukjae Lee, University of Massachusetts-Amherst Secondary Author: Lisa Keller, University of Massachusetts-Amherst

This study explored items with differential item functioning (DIF) in PISA 2018 reading literacy passages within and across Belgium and Canada. Multigroup confirmatory factor analysis and item response theory log-likelihood ratio difference tests showed that most passages included at least one DIF item between language and/or country groups.

#### Investigating Differences in Scores With And Without Text-To-Speech Accommodation Using Longitudinal Growth Measures

First Author: Mina Lee, University of Massachusetts-Amherst Secondary Author: Elizabeth Barker, NWEA

We investigated differences the growth of students by assigned text-to-speech (TTS) accommodation, utilizing longitudinal growth measures on reading assessment. Using three-level hierarchical linear models including the assignment of TTS accommodation as a predictor, different growth patterns of students who were TTS assigned and not TTS assigned were found.

Session 8.4: EDUCATING EDUCATORS (IN GATHER.TOWN ONLY)

Roundtable

Off Lobby (Roundtable #1)

Chair: Abdelnasser Nofal, Andalusia School

#### Affect as Data in Education Research: Methodological Possibilities in Teacher Education First Author: Adrian D. Martin, New Jersey City University Secondary Author: Tammy Mills, University of Maine

This qualitative study explored how affect could be leveraged as a data source in educational research. The inquiry suggests the productiveness of teacher educators attuning to affect in the investigation of professional practice and identity. Attending to affect can sensitize research to the embodied experience of teaching and learning.

# A Study of Policy Instrument Choice and Diffusion regarding Teacher Deployment in Southeast Asian Countries

First Author: Agustina Kustulasari, State University of New York at Albany Secondary Author: Kana Takahashi, State University of New York at Albany

This paper looks into policy instruments regarding teacher deployment to rural areas, and the notion of policy innovation diffusion amongst the neighboring countries in Southeast Asia. Policy reports have identified similar challenges on this issue, and this paper attempts to draw a typology of policy instruments through content analysis.

**The Effect of Project Based Learning on Students with Autism Spectrum Disorder (ASD)** First Author: Vesna Grujicic, Notre Dame University of Maryland

Project Based Learning is fundamentally rooted in active learning, which is crucial to successful learning outcomes for students with disabilities. The study, which used data from Special Education Longitudinal Study to evaluate the impact of PBL on reading and math outcomes of students with autism.

### Session 9.1: TEACHING IN STEM

Paper Session

Concord

Chair: Joanna Meyer, Yale School of Medicine

Discussant: Aubry Threlkeld, Endicott College

# Mixed-Methods Exploration: Teacher Use of Evidence-Based Instructional Practice & Understanding of Student Stem Identity

First Author: Jeanette Chipps, Granada Hills Charter High School Secondary Author: Carey Borkoski, Molly Macek, Johns Hopkins University

This paper explores teacher-reported use of evidence-based instructional practices, barriers to use of these instructional practices, understanding of STEM identity, and the use of evidence-based instructional practices to support STEM identity from a small sample of teachers. Qualitative and quantitative data were collected and merged during data analysis.

### Teachers' Approaches to Inquiry-Focused Mathematics Teaching During The Covid-19 Pandemic In Hybrid And Online Settings

First Author: Miriam Gates, Emmanuel College

The pandemic posed novel challenges to elementary teachers seeking to provide inquiry approaches to mathematics teaching in the classrooms. With little existing research, teachers used their own expertise to design learning environments for their students. Here, we present some of the practices they employed in hybrid and online learning environments.

# Educators' Perceptions of Creativity in Mathematics: A Cross-Cultural Analysis Using a Mixed-Methods Approach

First Author: Marcia Delcourt, Western Connecticut State University

This study was designed to understand how educators' perspectives of creativity and mathematics impact their views about creativity in mathematics. Educators in India and the US were asked to define creativity and justify statements ranging from those that were mathematical in nature to expressions defining mathematics as a creative entity.

## Session 9.2: HIGHER EDUCATION: LOOKING TO THE FUTURE

### Paper Session

Montpelier

Chair: Bo Bashkov, IXL Learning

Discussant: Sherri Raftery, Endicott College

#### The Impact of Covid-19 On College Enrollment

First Author: Michael Hurwitz, College Board Secondary Authors: Jessica Howell, Jennifer Ma, Matea Pender, Jeff Wyatt, Greg Perfetto, Linda Young, College Board

This research provides a rigorous, quantitative examination of how COVID-19 affected the fall 2020 college enrollment decisions of students in the high school class of 2020 and re-enrollment decisions of first-year college students from the high school class of 2019.

# Navigating the Next Normal: Strategic Enrollment and Financial Management in the Post-COVID Era

First Author: John Barnshaw, Ad Astra Secondary Author: Christopher Marsicano, Davidson College

This presentation highlights data from three COVID-related projects. We find that course scheduling plans influenced enrollment and financial health. Associate's and baccalaureate institutions were negatively impacted. Private baccalaureates were most impacted with declines of net tuition revenue, and 49 percent reporting declines greater than five percent.

# The Effect of Increases in The State Minimum Wage on Retention of College Students at Higher Education Sectors

First Author: Yelenna Rondon, North Shore Community College

In this research, I study the impact of increases in the state minimum wage on retention of college students across Massachusetts. Using IPEDS data, I estimate how increases in the minimum wage affect higher education institutions differently depending on the institution sector.

### Session 9.3: TEACHING STUDENTS READING

Paper Session

Providence

Chair: Paulius Satkus, James Madison University

Discussant: Darren Fleischer, DC State Board of Education

# The Impact of the ACTOR Reading Method on the Students' Reading Comprehension and Perceptions

First Author: Victoria Rey, Kean University

In this session, the presenter will explain the steps in the ACTOR method for reading comprehension and will discuss the results of using this method on the college students' reading comprehension and perceptions.

#### **Data-Driven Decision-Making for Effective Literacy Instruction**

First Author: Salika Lawrence, The College of New Jersey

This qualitative case study explored the data literacy of pre-service teachers (PSTs) in a methods course. PSTs' reports and instructional artifacts were examined using content analysis. Results show, PSTs used different kinds of data to identify students' strengths, literacy needs, and to make data-driven decisions for targeted instruction.

## Session 9.4: POSTER SESSION A (IN GATHER.TOWN ONLY)

Poster Session

Augusta

Discussant: Amber O'Shea, Penn State University

#### **Differential Motivation in Remote Educational Assessment: Person-Based Filtering Versus Response-Based Filtering** (Poster Slot #1) First Author: Sarah Alahmadi, James Madison University

Secondary Author: Christine DeMars, James Madison University

Remote, low-stakes assessment raises concerns about examinee motivation. Operationalizing motivation as self-reported effort or test-taking time has limitations: the first is subjective and the second overlooks differential motivation (i.e., different effort levels on different items). We investigated four scoring methods addressing motivation issues; the different methods yielded different observed results.

#### **Differences Between Proctored and Non-Proctored Exam Scores at the Beginning of the COVID-19 Pandemic** (Poster Slot #2)

First Author: Whitney Zimmerman, The Pennsylvania State University, University Park Secondary Authors: Megan Romer, The Pennsylvania State University, University Park; Ryan Hassler, The Pennsylvania State University, Berks; Bryan James, Pennsylvania College of Technology; Harold Hayford, The Pennsylvania State University, Altoona

An online course lost access to live proctoring services in the middle of the Spring 2020 semester due to the COVID-19 pandemic. Exam scores from the Fall 2019 semester, when all exams were proctored, were compared to scores from the Spring 2020 semester, when only the first exam was proctored.

### **Students' Perceptions of Active Learning Techniques in Virtual Synchronous Large Group Sessions** (Poster Slot #3)

First Author: Clara Chen, Hackensack Meridian School of Medicine Secondary Authors: Elizabeth Koltz, Chosang Tendhar, Keith Metzger, Christopher Duffy, Hackensack Meridian School of Medicine

The purpose of this study is to examine the varying impact of virtual large group active learning techniques on medical students' perceptions of their level of engagement and learning effectiveness. A survey was distributed to first- and second-year medical students. Results could inform institutions' curricula modifications in the post-COVID era.

#### Human Trafficking and Higher Education: Prevalence Of Training For Future Health Care Professionals (Poster Slot #4)

First Author: Shelby Perry, New England Institute of Technology Secondary Author: Henry Johnson, New England Institute of Technology

Human trafficking is a growing problem throughout the United States and insufficient training of health care professionals regarding the identification of victims is a primary cause of concern. This study explored the prevalence of human trafficking training in the higher education curriculum of allied health students in Rhode Island.

Discussant: Steven Holtzman, Educational Testing Service

#### **Netnography: A Methodology Presentation Examining Parent Perspectives of Education during COVID** (Poster Slot #10)

First Author: Stefanie McKoy, University of Arkansas Secondary Author: Lorien Jordan, University of Arkansas

This poster presents netnography as a qualitative methodology that utilizes social media activity to inform education policy. We discuss pertinent social media platforms, ethical implications, and research procedures, alongside an exemplar of a study on parenting, social media, and COVID-19. We conclude with practical tips and implications for future research.

### **Exploring Education Data Prior to and During the Pandemic** (Poster Slot #11)

First Author: Hannah Smith, Worcester Polytechnic Institute Secondary Authors: Claire Behning, Worcester Polytechnic Institute ; Nellie Rushton, Doherty High School, Fernanda Viramontes, South High School

The shift to online learning was unprecedented and the effects on learning were unknown. This study explored data on student problem solving in an online platform during the 2019-2020 school year. We found students answered more problems correct during the shutdown. We share implications for teaching, learning and evaluation.

# **Teach Peacefully: Fostering a Positive and Engaging Classroom Environment** (Poster Slot #12)

First Author: Kate Orbon, Merrimack College

This study explores the impact discipline strategies and classroom management techniques have on both students and teachers. Evidence-based discipline practices that promote connection, collaboration, and empowerment foster the social, emotional, cognitive, and academic wellbeing of students by creating a learning environment that is engaging, respectful, and cooperative.

#### Culture, Identity, and Disability: A Participatory Ethnography Study of a First-Generation High School Girl with ADHD (Poster Slot #9)

First Author: Mary Kalliny, Rowan University

Just as cultural values are different across the world, Zidan (2012) argues that the disability related conditions and laws, services, treatments and support vary across countries. the purpose of this study is to investigate the impact of home culture on immigrant's perception and attitude towards disability and intervention.

Discussant: Natalie Duvall, University of the Arts

Providing Optimal Trunk Support to Improve Student Engagement for Students with Postural Deficits (Poster Slot #5) First Author: Thilagha Jagaiah, University of Hartford Secondary Author: Sandra Saavedra, University of Hartford

This feasibility study compared a usual and a customized support device to examine students with postural deficits on student engagement over a six-week period. Findings reveal the customized device show significant improvement in student engagement with an average effect size for both the devices exceeding 0.8.

**Impacts of An Assistive Technology Graduate Program: A Case Study** (Poster Slot #7) First Author: Lauren Tucker, Southern Connecticut State University

A qualitative case study will be shared investigating the impacts of a graduate degree in assistive technology on the practices of educational professionals. Through the lens of Kolb's Experiential Theory, survey and focus group data was analyzed to reveal the impacts and influential learning experiences.

Assessing the Role of Teachers in Cultivating or Nurturing Black Students' STEM Identity (Poster Slot #8)

First Author: Tajma Cameron, Drexel University

While existing research has identified different factors explaining the issues of persistence and recruitment in STEM fields of Black students, gaps in the literature exist concerning teachers' roles in fostering the formation of STEM identities in their Black students. Critical to increasing representation in STEM pathways is cultivating STEM identities.

## LUNCH BREAK AND VIDEO OF AWARD WINNERS Plenary

Ballroom

Grab your lunch and watch the awards committee present this year's awards. This session was pre-recorded, and the link to watch the awards may be found in Cvent, or in the ballroom in Gather.Town.

## Thursday, October 14, 1:00 – 2:00 PM

Session 11: INVITED KEYNOTE

Plenary Session

Ballroom

Keynote Speaker: Jennifer Bell-Ellwanger, Data Quality Campaign

# Thursday, October 14, 2:00 – 2:50 PM

### Session 12.1: HIGHER EDUCATION IN THE ONLINE ENVIRONMENT II

### Paper Session

Concord

Chair: Weedens Blanchard, Hunter Business School

Discussant: Shu Chen-Worley, Touro College

#### How Demographics, Devices, and Course Characteristics Impact Introductory Psychology Course Outcomes during COVID-19

First Author: Teresa Ober, University of Notre Dame Secondary Authors: Jessica Brodsky, Nicole Zapparrata, Donnan Gravelle, Elizabeth Che, Holly Weisberg, Patricia Brooks, College of Staten Island and the Graduate Center, CUNY

We explored factors predicting student learning outcomes (N=1495) in online Introductory Psychology sections at an open-enrollment college in the Northeastern United States in Fall 2020. Use of computers/laptops to complete assignments predicted higher pass rates, quiz, and test grades. Additional benefits were associated with synchronous meetings.

# Mathematics Teaching Assistants' Community-Building Activities During Remote Instruction

First Author: T. Royce Olarte, University of California, Santa Barbara Secondary Authors: Damaris Hernandez, Hannali Pajela, Sarah A. Roberts, University of California, Santa Barbara

The need to build community in mathematics learning spaces was exacerbated by the COVID-19 pandemic. This study examines the community-building efforts of mathematics teaching assistants during a dynamically uncertain period and how they engaged in pandemic sensemaking to make sense of and adapt their community-building efforts for remote instruction.

### Study Addiction and the Online Student

First Author: Michael Wolter, Post University Secondary Author: Michael Saxton, Post University

Study addiction was conceptualized using workaholism as a framework. This study seeks to address this gap by utilizing the Bergen Study Addiction Scale. Participants will be asked the following demographic information: age, gender, graduate/undergraduate, class, state of residence, and school of study. Study addiction remains relatively unexplored within higher education.

# Thursday, October 14, 2:00 – 2:50 PM

## Session 12.2: CULTURALLY SENSITIVE EDUCATION

### Paper Session

Hartford

Chair: Madison Holzman, Curriculum Associates

Discussant: Madison Holzman, Curriculum Associates

# Teacher Perceptions of In-service Training on their Development of Culturally Relevant Classroom Management

First Author: Amy Zapatka Cedin, Curriculum Associates

This mixed methods study examined teacher perceptions of in-service training on culturally relevant classroom management. While the study concluded that in-service training helped teachers develop some elements of CRCM, it did not fully contribute to their ability to reflect on how their identity and biases can impact students of color.

# Topic Modeling of Twitter Data to identify grassroot responses to Critical Race Theory in schools.

First Author: Tarang Tripathi, Department of Education, University of California, San Diego Secondary Author: Arnab Dey, Center on Gender Equity and Health, University of California

With multiple US states banning Critical Race Theory (CRT) in schools, discourse around CRT has been catapulted to the forefront of education policies. Centering the idea of democratizing big data analysis to inform educational policy, this study draws on Twitter data to analyze grassroot responses to the new policies.

#### **Exploring Antiracist Classroom Assessment Practices: The Case of Hip Hop Pedagogy** First Author: Jade Lee, Clark Atlanta University

This paper explores how hip-hop pedagogy can be implemented in K-12 classroom assessment practices. Formative assessment techniques that align with the principles of hip hop pedagogy are detailed including call and response, cyphers, and battling. The paper ends with a call to action for classroom assessment researchers and practitioners.

# Thursday, October 14, 2:15 – 3:45 PM

### Session 12.3: THE ROLE OF RESEARCH COLLABORATIONS IN SHAPING COMMUNITY BASED EARLY CHILDHOOD EDUCATION PROGRAMS

### Symposium

Montpelier

Chair: Andrew Cavanagh, Education Alliance

Presenters: Erin Godfrey, New York University; Ciara Nestor, Educational Alliance; Jackie Weinland, Manny Cantor Center Early Childhood Education

Research Practice Partnerships between academic institutions and CBOs can assist researchers in capitalizing on research opportunities that already exist within early childhood education programs. Topics covered will include practical recommendations for building relationships across institutions, supporting families and teachers during programmatic changes, and incorporating reflective practice into classroom assessment.

<u>Developing Research Practice Partnerships</u> – This presentation will examine how researchers within academic institutions can build mutually beneficial relationships with practitioners in CBOs. While these relationships can be challenging to navigate, the benefits for the academic institution, the CBO and the researchers themselves outweigh any potential drawbacks.

<u>Supporting Kindergarten School Choice</u> – When discussing how to address race and SES school segregation, one policy often touted to increase school diversity is school choice. This presentation will discuss how a socioeconomically integrated early childhood program, situated in a school choice district, has used data to support parents in choosing a kindergarten for their children.

<u>Teacher Social Networks: Implications for Community Building and Self-Efficacy</u> – A social network analysis creates a visual map of how teachers draw on these funds of knowledge across classrooms, teaching teams, and leadership staff. Examining how these relationships evolve from the beginning to end of the year provides insight as to how teachers seek and provide support for one another within a program undergoing structural changes. This presentation will also aim to understand how receiving support from other teachers can impact teachers' beliefs about their own self-efficacy.

<u>Supporting Teachers in Developing a Reflective Assessment Approach –</u> Reflecting on classroom practices is recognized as an important aspect of early childhood teachers' continual professional development. In order to meaningfully respond to the individual needs and interests of young children, teachers must have the opportunity to regularly examine and question children's learning as well as their own. This presentation will review the development of a practical guide for teachers to use in reflection on classroom practices through the qualitative analysis of the "mini-stories" the teachers produced as part of children's assessments.

# Thursday, October 14, 2:15 – 3:45 PM

## Session 12.4: INQUIRY STRATEGIES FOR LIFELONG LEARNING

### Invited Symposium

Providence

Chair: Marcia Delcourt, Western Connecticut State University

Presenters: Wes J. DeSantis, Western Connecticut State University; Marcia Delcourt, Western Connecticut State University; Douglas Coates, Chappaqua Central School District; Frank LaBanca, Danbury Public Schools; Stephanie L. Bell, Bedford School District; Joseph Abramo, University of Connecticut; Rex Sturdevant, Guilford Public School

An inquiry mindset begins with asking questions. The educator researchers in this symposium describe their experiences to foster preservice teachers' questioning strategies; promote inquiry skills of students in specific subject areas such as music, science, and social studies; and design a school to enhance inquiry practices for life-long learning.

# Thursday, October 14, 2:15 – 3:45 PM

# Session 12.5: CREATING A STRONG PERSONAL BRAND FOR YOUR SERVICES

### Workshop

Merritt North

Facilitators: Christine Stevens, New England Institute of Technology; Heather Harris, Independent Consultant

Working as a consultant can be a lucrative endeavor, but building up a personal brand and finding clients requires answering a few simple questions: What services are you offering? How do you let potential clients know the services you offer? Can you articulate clearly why they should work with you?

Developing your personal brand means understanding a few basic marketing concepts like your value proposition, your target market, and the "4 P's," which includes your promotional strategy. In this workshop, you will learn foundational marketing concepts that can help you grow your consulting business and how to best use social media to get the word out about your brand. A few case study examples will be discussed, and participants will have the opportunity to complete hands-on exercises to create and then discuss their own personal branding and consulting plans.

# Thursday, October 14, 3:00 – 3:50 PM

## Session 13.1: INCLUSIVITY AND SENSITIVITY IN EDUCATION

### Paper Session

Concord

Chair: Tabitha Bellamy, New Jersey Department of Education

Discussant: John Park, Penn State University

### Inclusive Science Communication: Critical Dialogue and The Challenges of Measuring Impact for DEI in STEMM

First Author: Hollie Smith, University of Oregon Secondary Authors: Kayon Murray-Johnson, Hannah Trautmann, Mehri Azizi, Sunshine Menezes, University of Rhode Island

Inclusive Science Communication (ISC) is a growing field that centers equity, inclusion, and intersectionality to challenge persistent systems of oppression in STEMM. This case study highlights perspectives of educators, researchers, and practitioners who are actively engaged in inclusive communication and the importance of evaluation frameworks for DEI approaches in STEMM.

# Examining the Efficacy of Restorative Practices on School Safety and Student Outcomes in Boston Public Schools

First Author: Melissa Yisak, American Institutes for Research Secondary Authors: Roger Jarjoura, Christina Licalsi, Andrew Swanlund, Amelia Auchstetter, American Institutes for Research

With funding from the National Institute of Justice, the American Institutes for Research (AIR), in partnership with Boston Public Schools and Suffolk University Center for Restorative Justice, is evaluating the Circle Forward whole school restorative practices model. This presentation will share findings from a randomized trial study with 30 schools.

# How Educational Language Policy Ideologies and Orientations Relate to Outcomes: A National Corpus Linguistics Analysis

First Author: Dr. Xiomara Rivera Pagán, Hood College

This study investigates the relationship between language learning ideologies and orientations within educational language policies. The conceptual framework integrates theories of ideologies and orientations to demonstrate different outcomes for multilingual students (Kloss, 1998; Rui?z, 1984). The findings demonstrate that ELP orientations do demonstrate linguistic indicators according to corpus linguistics analysis

# Thursday, October 14, 3:00 – 3:50 PM

## Session 13.2: TOPICS IN TESTING AND MEASUREMENT

### Paper Session

Hartford

Chair: Kate Nolan, Curriculum Associates

Discussant: Yu Bao, James Madison University

### **Examining the Empirical Methods of Setting Cut-off Scores**

First Author: Dongwei Wang, University of Massachusetts-Amherst Second Author: Lisa Keller, University of Massachusetts-Amherst

The standard in most licensure and certification examinations are currently using modified Angoff method. In medical related fields, receiving operating characteristic (ROC) is commonly used to create optimal cut-scores to minimize the error rate. This study compared the error rate between theta score scale using IRT and raw score scale.

#### The Application of Cumulative Sum Control Method in Educational Measurement

First Author: Siyu Wan, University of Massachusetts-Amherst Second Authors: Lisa Keller, University of Massachusetts-Amherst; Irina Grabovsky, NBME

Cumulative sum (CUSUM) is a well-established statistical process control method to detect aberrant responses for educational assessments. This study describes the CUSUM procedure and shows how it can be used to monitor the quality of the test-taking process. It aims to provide an accessible guide for the CUSUM method.

#### **Comparing DIF Detection Using Mantel-Haenszel and Lasso**

First Author: Joselyn Perez, University of Connecticut Second Author: Eric Loken, University of Connecticut

We use the Mantel-Haenszel test and lasso to detect differential item functioning (DIF). We compare false positive and true positive rates across conditions involving the presence or absence of DIF and group differences in mean ability. The MH procedure was more powerful, but with a higher false positive.

## Thursday, October 14, 4:00 – 5:00 PM

# Session 14: PERSPECTIVES ON INCORPORATING INSTITUTIONAL DATA INTO P-20 INFRASTRUCTURE, RESEARCH, AND POLICY

### Invited Panel

Ballroom

Moderator: Heather Kelly, University of Delaware

Panelists: Jennifer Bell-Ellwanger, Data Quality Campaign; Lynn Letukas, SAS; Kate Akers, Pennsylvania State System of Higher Education

This invited panel session brings together different perspectives on how institutional data can be incorporated into infrastructure design, research activities, and policy decisions on the wide array of issues affecting the current P-20 student population. Each of the panelists has made a far-reaching contribution to the larger conversation about a specific point in this spectrum: K-12, higher education, or state policy. Their experiences with different stakeholder groups and related insights can be valuable for attendees to learn about how to use data to solve educational challenges in their own professional communities.

# Thursday, October 14, 5:00 – 6:15 PM

Session 15: MENTORING SESSION: HAPPY HOUR (IN GATHER.TOWN ONLY)

Social

Parallel Post

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. If you are a part of the NERA mentorship program, this is your chance to meet your mentor/mentee face-to-face. If you are not a part of the program, consider signing up for the upcoming year.

## Thursday, October 14, 7:00 – 8:00 PM

## BATTLEDECKS (IN GATHER.TOWN ONLY)

Social

Beach

Can you think three times fast? Well, now is your time to prove it! Join our host Wesley Lopez for *Battledecks* a challenging game where participants are given a random topic and must deliver a 3-minute PowerPoint presentation relating to slides they've never seen before. Join us for what will be an evening of fun and frivolity. Prizes will be awarded to the top 3 presenters.

## Session 16.1: TEACHER DIVERSITY

### Paper Session

Concord

Chair: Darren Fleischer, DC State Board of Education

Discussant: Chosang Tendhar, Hackensack Meridian School of Medicine

# Impact of the edTPA on Diverse Pre-Service Teacher Candidates' Perceptions of Their Preparedness to Teach

First Author: Nancy DeJarnette, University of Bridgeport Secondary Authors: Judy Moeller, Kathleen Wallace, University of Bridgeport

Recent reforms have instigated high-stakes performance-based assessments for initial teaching certification. Some have presented that the high stakes edTPA assessment could actually negatively impact minorities from entering the profession. This research focused on diverse teacher candidates' perceptions regarding preparedness to teach upon completing a teacher preparation program with an edTPA mandate.

### **Understanding Induction and K-12 Black Women Educators**

First Author: LeTanya Lawrence, University of Bridgeport

The purpose of this qualitative case study was to explore the individual induction experiences of BWEs in Connecticut urban public schools. Despite the unique challenges BWEs in this sample have endured that have triggered their career movement, BWEs continue to persist past adversity and remain the field.

## Session 16.2: EDUCATION MISCELLANY

Paper Session

Hartford

Chair: Kate Nolan, Curriculum Associates

Discussant: Tonghui Xu, University of Massachusetts Lowell

# Trends Among NJ Public High School Students' Arts Education Participation, Graduation Rates, and Courses Offered

First Author: Richard Celebre, Roseland School District Secondary Author: Jillian Patterson, William Paterson University

Despite its association with academic performance, accountability demands threaten students' access to quality and equitable arts educational opportunities. This case study examined NJ public high schools' arts participation percentages, graduation rates, and scope of arts-related courses. Quantitative and qualitative trends illuminated a possible indirect benefit of arts education and persistence.

#### Using Noncognitive Assessments to Aid in Reducing the Achievement Gap

First Author: Hannah Lieber, Network for Teaching Entrepreneurship Secondary Authors: Arie Spirgel, Jason Delgatto, Hannah Lieber, Network for Teaching Entrepreneurship

The proposed study will evaluate the importance of including measures of noncognitive skill development in the college admission process. Using path analysis, we will evaluate the relationship between college matriculation and traditional high school success measures, using GPA and standardized test scores, with noncognitive skill development as a moderator.

#### Making the Academic Writing Process Explicit for Doctoral Students in the Social Sciences First Author: Sarah Ferguson, Rowan University

Secondary Authors: Cecile Sam, Brent Elder, Rowan University

The purpose of this paper is to clarify the academic writing process and stages of publication, specifically identifying areas where authors can proactively make informed choices and decisions. This paper uses collaborative autoethnography as a means to explore the experiences of three faculty members and provide guidance for students.

## Session 16.3: UNIQUE CHALLENGES IN HIGHER EDUCATION

### Paper Session

Montpelier

Chair: Tania Rachkoskie, George Washington University Discussant: Teresa Ober, University of Notre Dame

### **Examinee Perspectives on Un-proctored Internet Testing**

First Author: Kate Schaefer, James Madison University Secondary Authors: Samantha Harmon, Dena Pastor, James Madison University

COVID19 increased the use of un proctored internet test administration (UIT). Because the perspective of examinees is often overlooked in UIT, we obtained feedback from college students completing required low-stakes assessments. Comments were largely positive; students appreciated the flexibility of UITs and found them relatively less stressful than in-person testing.

### Time Poverty Is Not Equitably Distributed Among College Students

First Author: Claire Wladis, Borough of Manhattan Community College, CUNY Secondary Authors: Alyse Hachey, University of Texas El Paso; Kay Conway, Borough of Manhattan Community College, CUNY; Catherine Manly, Graduate Center, CUNY

This study investigated student groups who have differing amounts of time available to devote to their college education. The extent to which these differences may be correlated with other factors such as age, number of children, and access to childcare were explored.

# Session 16.4: PERPECTIVES ON CHANGING IT UP: NEW DIRECTIONS FOR ASSESSMENT

### Symposium

Providence

Chair: April Zenisky, University of Massachusetts at Amherst Presenters: Maria Elena Oliveri, Buros Center for Testing; Eric Snow, Evidence-Centered Research & Evaluation (ECRE); Jennifer Lewis and April L. Zenisky, University of Massachusetts Amherst; Ted Daisher, University of Massachusetts Amherst; Sergio Araneda, Dukjae Lee, Jennifer Lewis, Maura O'Riordan, Stephen G. Sireci, and April L. Zenisky, University of Massachusetts Amherst; Thanos Patelis, Teacher's College and University of Kansas

Assessment is at an interesting place, in 2021. The past 20-30 years have seen a marked shift from predominantly paper-based administrations to technology-based assessments in many testing contexts. The last year alone has seen previously unimagined use of remote test delivery as millions of students and examinees globally have been under stay-at-home orders given the COVID-19 pandemic. In many cases, tests today look very different than those of even a few years ago. We begin here to note that change is not new to large-scale assessment, but it does require us as a field to be open to new ideas, to collaborate with people not trained in the same ways of thinking as ourselves, and to revisit paradigms and values inherent in our standards (and, perhaps, our *Standards*). Indeed, as evidenced by many of the conversations occurring in and around testing, clearly much real work remains, especially around equity and fairness and the 'why' of assessment in the 21<sup>st</sup> century marked by emerging understandings of social justice and systemic biases.

Building on an ever-evolving landscape, the theme of this symposium for NERA 2021 is *New Directions for Assessment*. Each of the four papers included in this symposium operates from the perspective of change in some aspect of what we do and how we do it as a field. The paper by Oliveri and Snow takes on the very conceptualization of tests incorporating evidence-centered design and sociocognitive approaches. Lewis and Zenisky focus on a topic typically left to the end of test development and reflect on results reporting through a new lens. The Daisher paper reckons with assessment within digital learning systems where proficiency changes over time, to explore estimation strategies in that context. The Araneda et al. contribution looks at the building blocks of tests – our items – by investigating a new item format with regard to validity evidence based on test content.

The session will conclude with remarks from distinguished scholar Thanos Patelis.

#### Applications of Sociocognitive Evidence-Centered Design to Assess Computational Thinking with Diverse Learners: Advancing Construct Conceptualization, Domain Modeling, and Task Design

In this presentation, we will discuss our application of evidence-centered design principles to the development of digital tasks to assess an expanded computational thinking (CT) construct that includes deeper learning (i.e., integrated cognitive and communication) aspects of CT and authentic-like workplace-relevant applications of CT practices. This presentation illustrates the importance of jointly considering fairness, validity, and equity when tasks are administered to diverse (underserved) learners. An understanding of how to design and develop engaging, complex, and contextualized CT tasks is important to better equip learners with the skills needed to navigate the complexities of the digital economy.

# Reimagining Score Reporting through a Marketing Lens: Application of a Customer Journey Mapping Framework

This study applies the concept of customer journey mapping from data-driven marketing to score report development. Customer journey maps provide companies with a data-based support of customer interactions with products. These maps serve as a representation of the relationships between each interaction, while generating an overall sketch of the relationship between all interactions (Micheaux & Bosio, 2019). We examine the feasibility of using a customer journey mapping framework to simulate score report user experiences that align with the wants, needs, and characteristics of teachers. The data will consist of individual teachers' previous experiences with tests and score reports, characteristics, classroom data needs, and interpretations and decision-making processes based on currently available score reports. The results of this study will be used to further explore the effectiveness of using a data-driven marketing approach to create score reports that contribute to learning in the classroom.

#### **On-the-Fly vs. Batch Estimation in Adaptive Learning Systems**

In adaptive learning systems, students learn over items, and the system adapts, providing more challenging material. Item response theory (IRT) has been used to adapt these systems. IRT is used to follow a theta that changes over items, rather than refine an estimate of a stable theta. Previous work has adapted these systems item-by-item when using IRT. Adapting a system using batches of items has not been investigated. This simulation study addressed this gap by comparing item-by-item and batch adaptation using the Elo rating system. The proficiency growth of 300 students over 160 items was simulated. Initial proficiency and growth over items varied across students. The accuracies of the approaches in following the growth trajectories of students were compared. Five items were used in each batch for batch estimation. The accuracies of the approaches were comparable. The average mean standard error for item-by-item adaptation was 0.23 (SD = 0.02), and the average mean standard error for batch estimation was 0.25 (SD = 0.02).

## Incorporating SmartItem<sup>TM</sup> Technology on a Multistage-Adaptive Test

SmartItems<sup>TM</sup> are items on educational tests that use technology to completely cover a targeted content standard in a presentation format that is essentially unique to each examinee. SmartItems are developed using coded algorithms that populate a specific variation of an item in real time based on the corpus of text or mathematical formulae from which it draws (Foster, 2020). In this study, we develop and evaluate SmartItems targeted to measure the mathematics content standards in the College and Career Readiness Standards for Adult Education (Pimentel, 2013), which are targeted by the Massachusetts Adult Proficiency Tests. We describe the three different approaches taken in the item development process and how the developed items will be implemented into the operational MAPT testing system. The degree to which these items improve the content domain representation of the MAPT and provide efficiency in item development is discussed, and suggestions for future research and incorporation of SmartItems into operational testing programs are provided.

# Session 16.5: STEM TEACHING AND CAREERS (IN GATHER.TOWN ONLY)

#### Roundtable

Off Lobby (Roundtable #1)

Chair: Ali Söken

# Teachers' Perceptions and Practices of Inclusive STEM Education: A Mixed-methods Case Study

First Author: Latifa Sebti, Rowan University

The purpose of this mixed-methods case study is to examine the connection between STEM education teachers' perceptions of inclusion, their sense of self-efficacy, and their practices in inclusive classrooms with the goal to provide accessible and equitable learning opportunities to students with disabilities.

# Gaining Insight to Persistence in STEM Career Aspirations Using a Random Forest Variable Selection Approach

First Author: Hsien-Yuan Hsu, University of Massachusetts Lowell Secondary Author: Tonghui Xu, University of Massachusetts Lowell

We propose a hybrid approach that combines (a) the multiple-theory-driven approach and (b) a random-forest variable selection algorithm (i.e., Boruta). We compare the effectiveness of the proposed hybrid approach against the conventional single-theory-driven approach in predicting high school students' persistence in STEM career aspirations using the multilevel models in HLM.

#### Gender Differences in Undergraduate Engineering Students' Intention To Pursuit Careers In Sustainability

First Author: John Jongho Park, Penn State University Secondary Authors: Mihee Park, Penn State University; Nathan Hyungsok Choe, George Washington University, John Jongho Park, Penn State University

This study highlights gender differences in Engineering students' intention to pursuit careers in sustainability. While sustainability issues emphasizing the human dimensions and impacts of engineering have been shown to increase female participation, a lack of this, unrealized expectations or being unable to make connections between engineering careers and social impacts.

# Friday, October 15, 9:15 – 10:45 AM

### Session 16.6: HABITS OF MIND

### **Invited Symposium**

Merritt North

Chair: Marcia Delcourt, Western Connecticut State University Presenters: Bena Kallick, Institute for Habits of Mind; Julio Vazquez, *North Salem Central School District*; Philip G. Muscott, CIA FIRST International School Priscila Torres, Escola Concept School; Damian Bebell, Boston College

A quality education provides students with the opportunities to develop their thinking dispositions while solving difficult problems in an intelligent manner. Three presenters will describe how students and educators facilitate thinking using 16 Habits of Mind. This international panel represents school leaders from Brazil, Cambodia, and the US.

# Session 17.1: DIVERSE LEARNERS AND EDUCATIONAL MEASUREMENT

Paper Session

Concord

Chair: Amber O'Shea, Penn State University

Discussant: Matthew Kilic, K-12 Educator

# Language Minority Students Identified for Special Education: Predictors and the Role of Parent Engagement

First Author: Angela Klinger, Notre Dame of Maryland University Secondary Author: Rachel Durham, Notre Dame of Maryland University

This study investigated predictors of special education identification among language minority students by fifth grade using data from the ECLS-K:2011. Predictors included kindergarten math scores, fifth grade reading, mobility, and school poverty. Net achievement, high levels of parent engagement increased odds of language minority students identifying for special education services.

#### **Know Your Psychometrics History: The Evolution of The Concept Of Discrimination** First Author: Sebastian Moncaleano, Boston College

The concept of item discrimination is a staple of the field of educational measurement. This paper explores the evolution of this concept throughout the 20th century recounting alternative calculation methods and criteria proposed to deem an item acceptable showing how the field arrived at the rules of thumb used today.

### Session 17.2: STEM IN HIGHER EDUCATION

Paper Session

Hartford

Chair: Bo Bashkov, IXL Learning

Discussant: John Barnshaw, Ad Astra

# **Graduate Engineering Education Scholarship: Funding And Supporting Low-Income Students' Advance Degrees For Industry**

First Author: Shengjun Yin, University of Pittsburgh Secondary Authors: Keith Trahan, Tagbo Niepa, Sylvanus Wosu, University of Pittsburgh

This study utilizing a pretest-posttest design with mixed-methods to explore how the the NSFfunded, Pitt Graduate Engineering Education Scholarship program increase MS degree enrollment and completion by low-income, high-achieving undergraduates in the engineering field. The results imply the importance of scholarship in MS program.

#### The Research and Engagement Academy: A Model for STEM Faculty Development

First Author: Eleanor Abrams, University of Massachusetts Lowell Secondary Authors: Eleanor Abrams, University of Massachusetts Lowell; Orly Buchbinder, Dennis Britton, Julie Bryce, Leslie Couse, Jill McGaughy, Barrett Rock, University of New Hamphsire

Many universities require STEM faculty to external research funds as part of their promotion process. This proposal examines one faculty learning community, the Research and Engagement Academy, designed to support grant development. The structure of the Academy and trends from faculty surveys about grant proposal success will be presented.

### Friday, October 15, 10:00 – 10:50 AM

#### Session 17.3: APPROACHES TO LEARNING AND KNOWLEDGE

#### Paper Session

Montpelier

Chair: Fred Smith, Graduate Student

Discussant: John-Paul Hayworth, DC State Board of Education

## Immediate Versus Delayed Feedback on Online Learning: Do people's Instincts Really Conflict with Reality?

First Author: Xiwen Lu, Brandeis University Secondary Authors: Adam Sales, Neil Heffernan; Worcester Polytechnic Institute

Many studies that favored delayed feedback left the lag to post-tests uncontrolled, this study solved the problem by fixing the time interval between the experiment and the post-tests. A prepost randomized experiment with a within-subject design revealed that the immediate feedback significantly outperformed the delayed feedback on conceptual knowledge learning.

#### The Influence of Self and Team Perception on Post-Test Content Knowledge

First Author: Sofia Santillan, University of Texas-San Antonio Secondary Authors: Jonathan Steinberg, Jessica Andrews-Todd, Educational Testing Service

Social relationships in the classroom play a key role in participation and engagement. It is critical to understand how interactions play a role in students' perceptions and performance when working in teams. This study analyzed students' perceptions when working on a virtual collaborative task and the effects on their achievement.

## Using Learning Management System Assessment Tools to Inform Faculty Practice: An Action Research Study

First Author: Sophia Mitra, Union County College

Although the current climate in higher education calls for an increase in accountability and improvement-based learning using digital tools, best practices in this field demonstrating effectiveness and efficiency are still scant. This action research study focuses on the use of LMS assessment tools to inform faculty practice in data-driven decision-making.

### Friday, October 15, 11:00 - 11:50 AM

#### Session 18.1: K-12 EDUCATION IN THE DIGITAL AGE

#### Paper Session

Hartford

Chair: Hsien-Yuan Hsu, University of Massachusetts Lowell

Discussant: Parul Acharya, Columbus State University

## Visualization of the Digital Divide Among K-12 Students: Open Data, Quantitative Measures, and Policy Implications

First Author: Cary Jim, University of North Texas Secondary Authors: Alison Grant, Brent Ladd, Purdue University

Our work utilized a multi-disciplinary approach to assess the digital divide among K-12 students through socio-technical and economic analysis. Results show that internet access and use continued to be a challenge for disadvantaged communities. Three visualizations were developed for decision-making in resource allocation to improve access, use, and skill training.

**Investigating Factors Affecting Students' Satisfaction with Computer-based Assessment** First Author: Ji Yoon (Jenny) Jung, Boston College Secondary Author: Zhushan Li, Boston College

The present study revealed that 1) perceived technical difficulties and 2) self-confidence in using a computer, were significant predictors of students' satisfaction with computer-based assessment (CBA). Students were more likely to be satisfied with CBA when they perceived fewer technical difficulties and felt more confident in using a computer.

## K-12 Teachers' Competency in Performing Computational Thinking Skills: Does Professional Development Help?

First Author: Deepti Tagare, Purdue University

The global initiative of integrating CT in K-12 education faces a dearth of CT proficient teachers. This conference presentation will summarize the findings of a correlational study that investigates the various factors that affect teachers' ability to apply CT skills and identify to what degree CT professional development affects it.

### Friday, October 15, 11:00 – 11:50 AM

#### Session 18.2: GLOBAL EDUCATION

#### Paper Session

Hartford

Chair: Dukjae Lee, University of Massachusetts-Amherst

Discussant: Kabba Ebou Colley, William Paterson University

## School Without School: Education Professionals' Perceptions of the Impact of a Global Pandemic on Schooling

First Author: Samantha Lindquist, University of Connecticut Secondary Author: Marie Randle, Norwalk Public Schools

This paper explores the impact of COVID-19 on schools in both the US and the UK, focusing on the inequities the pandemic has highlighted and brought to the forefront of discussions on Education. The authors interviewed teachers and administrators to collect a holistic view of the Education systems.

#### **Pedagogical Challenges Encountered Teaching in Full Chinese Immersion Programs** First Author: Zhengqi Hu, Binghamton University

This qualitative study seeks to investigate the pedagogical challenges from four Chinese immersion teachers' perspectives. Data analysis reflected four significant challenges: inappropriate Chinese textbooks, heavy responsibility in recreating teaching materials, lack of formal language assessment, and conflict of 'teaching in Chinese but testing in English.'

#### **Early Grade Reading: A Universal Design for Learning Approach in Rwanda and Ghana** First Author: Valerie Karr, University of Massachusetts Boston

This paper will present formative research on the implementation of in-service teacher training in Universal Design for Learning (UDL) in Rwanda and Ghana to provide lessons learned across country contexts, share insight into what generates inclusive education confidence that empowers teachers and school leaders to utilize a UDL approach.

### Friday, October 15, 11:00 - 11:50 AM

#### Session 18.3: POLICY IMPACTS ON EDUCATION

#### Paper Session

Montpelier

Chair: Carina McCormick, Buros Center for Testing

Discussant: Carina McCormick, Buros Center for Testing

#### **A, B, C, D Failure: The Harm of ESSA Report Cards on Marginalized Student Populations** First Author: Jennifer Ervin, University of Georgia

The Every Student Succeeds Act requires that schools' results on state-mandated exams be publicly reported. In this presentation, the author argues that reporting on these assessments privileges this data over other metrics of success, and in doing so, creates specific harms and limitations on schools with racially diverse student populations.

## The Federal Government's Power Over Higher Education: An Analysis of Constitutional Authorities and Policy Instruments

First Author: Rebecca Natow, Hofstra University

Although education is not mentioned in the U.S. Constitution, the federal government exerts much control over higher education. This study examined policy documents supplemented with policy-actor interviews to understand the extent of the federal government's power to create higher education policy and the policy instruments through which it does so.

## **Reconsidering the Role of Assistant Principals: Analyses of Changing Responsibilities during COVID-19**

First Author: Seher Ahmad, Delaware Department of Education Secondary Authors: Michael Saylor, Delaware Department of Education; Ashley Holmes, Caesar Rodney School District

This study examines responsibility shifts of the assistant principal as a result of COVID-19. The study found that assistant principals overwhelmingly focus on managerial responsibilities. This has important implications not only for the school leadership pipelines but ultimately for student outcomes.

### Friday, October 15, 11:00 - 11:50 AM

#### Session 18.4: POSTER SESSION B

Poster Session

Boston

Discussant: Olivia McNeill, University of Massachusetts-Amherst

#### **The Impact of Culture on Accessibility and Inclusion for Children with Disability in Egypt** (Poster Slot #5) First Author: Mary Kalliny, Rowan University

Throughout history, geography, ethnicity, country and political boundaries have contributed to the creation of differences among different nations. The purpose of this study is to investigate the factors that contribute to the lack of access and inclusion for children with intellectual disability in the educational system in Egypt.

#### Parent Social Media Mobilization During COVID-19 (Poster Slot #8)

First Author: Stefanie McKoy, University of Arkansas Secondary Author: Lorien Jordan, University of Arkansas

In 2020, parents faced unprecedented challenges when schools closed due to the COVID-19 pandemic. Parents struggled to make educational decisions and to meet needs of their families, turned to social media for advice, community-building, and social mobilization. This poster examines parents' online social movements during COVID in relation to education.

# Considering Context: Issues in Designing a Study to Investigate the Role of Context in Assessment (Poster Slot #6)

First Author: Lisa Keller, University of Massachusetts – Amherst Secondary Author: Frank Padellaro, Cognia

The role of context in educational assessment needs to be more thoroughly researched. This paper discusses issues involved in developing a simulation context to investigate how context effects item responses, and whether or not these context effects can be measured.

#### **Developmental Education: Whose Development Counts?** (Poster Slot #7)

First Author: Yevgeniya Rivers, University of New Haven

Higher education institutions and their students shoulder the financial burden of developmental education, the costs of delivering instruction far outweigh spending on placement, and yet the literature rarely acknowledges the role of faculty development in reforms. I will present a variety of options and conclude with a call to action.

Discussant: Jade Lee, Clark Atlanta University

Dialogic Reading with Integrated Vocabulary Enrichment: Case Study of a Second-Grade Student in Special Education (Poster Slot #1) First Author: Cheryl Durwin, Southern Connecticut State University Secondary Authors: Dina Moore, Matthew LaPorta, Dayana Lituma-Solis, Southern Connecticut State University

We present a case study of Ben, a second grader receiving special education for a speechlanguage impairment. To address his reading comprehension and vocabulary impairments, we used our shared book-reading intervention called DRIVE. We document Ben's academic progress and motivational changes as a result of our 9-week individual intervention.

**The Relationship Between i-Ready Formative Assessment and End-Of-Year Maryland High-Stakes State Summative Assessment** (Poster Slot #2) First Author: Freddie Smith, Notre Dame of Maryland University

School districts are implementing data-driven decision-making tools to improve instruction aligned to the Common Core State Standards. Investigating the relationship between I-Ready a formative assessment and the Maryland College and Career Readiness Standards end-of-year state summative assessment, may yield evidence that I-Ready formative assessments can influence student achievement outcomes.

**Evaluating Treatment Fidelity of EMPOWERED Strategies in a Kindergarten Dialogic Reading Intervention** (Poster Slot #3) First Author: Stephanie Kaesmann, Southern Connecticut State University

We evaluate the treatment fidelity of Research Assistants utilizing our developed EMPOWERED strategies during our shared book-reading intervention, DRIVE, while reading with kindergarteners. Overall treatment fidelity was not as high as our previous work with first and second graders. Implications for future research with this younger population are discussed.

#### Privileging Nehiyaw Language & Knowledge: Assessment Pedagogy as Lifting Up the Wholeness & Wellbeing of Children (Poster Slot #4) First Author: Janice Huber, University of Alberta Secondary Authors: Patsy Steinhauer, Trudy Cardinal, University of Alberta

Our presentation shows insights from how our learning Indigenous wisdom and ethical relationality alongside Indigenous Elders and Knowledge and Language Keepers is centering the wholeness and wellbeing of teacher education students and ourselves, and in turn children and teachers, as key in relationally ethical assessment pedagogy.

Discussant: Tabitha Bellamy, New Jersey Department of Education

#### edTPA Perspectives: Connecticut's Novice Teachers Reflect (Poster Slot #9) First Author: Kathleen Wallace, University of Bridgeport

This collective case study utilized survey and qualitative data to address the gap in edTPA literature by exploring new teachers' perceptions of the edTPA as an efficacious tool and ascertaining the degree that the edTPA process influences current professional practices.

## **Student Success in a Master of Public Health Program: A Study of Predictors** (Poster Slot #10)

First Author: Tania Rachkoskie, George Washington University

In 2018, 70,000 of the 2 million graduate students were enrolled in public health graduate study (ASPPH, 2020; Okahana & Zhou, 2019). The 2020 pandemic brought public health into focus and accelerated growth of public health programs. The research question is, what admissions factors predict success within public health programs.

## Utilizing Mobile Technology as a Tool to Supplementing Literacy Education For Underserved Children in Kenya (Poster Slot #11)

First Author: John Jongho Park, Penn State University

Secondary Authors: Mumbe Mwangangi, Masinde Muliro University of Science and Technology (MMUST); Mihee Park, Penn State University; Nathan Hyungsok Choe, George Washington University

To promote children learning in Eastern Africa, there are unavoidable challenges involved in reforming literacy education. We attempted to utilize mobile technology in literacy education to see whether it can be a viable option to address critical educational challenges that are ultimately associated with a nation's workforce development and economy.

#### Examining The Impact Of Covid-19 On Student's Reading Performance In Kindergarten-

**2nd Grade** (Poster Slot #12) First Author: Raffala Wolf, Lexia Learning Systems

This study is an exploration of student reading gain scores in Kindergarten through 2nd grade for the 2017, 2018, 2019, 2020 school years. Data was collected using a computer adaptive assessment. Overall results indicated that this sample of students did not experience learning loss during the pandemic.

### Friday, October 15, 11:00 – 11:50 AM

#### Session 18.5: ADDRESS BY EDUCATOR-AS-RESEARCHER AWARD RECIPIENT

Plenary

Merritt North

Address by Britany Kuslis, W. F. Kaynor Technical High School

Teacher perceptions of their principal are an important element for how teachers view both their profession and their own self-efficacy. This study was used to examine the relationship between teachers' perceptions of their principal's support and teacher self-efficacy. A mixed-methods, convergent parallel design utilizing a multiple linear regression analysis was used to study these factors. Three surveys were used to investigate the relationship between teacher perceptions of principal support and teacher self-efficacy. Additional qualitative analyses were used to examine teachers' perspectives of these constructs. This study contributes to the growing recognition of the importance that teacher perceptions of principal support play in teacher self-efficacy.

### Friday, October 15, 12:00 – 1:00 PM

#### Session 19: NERA BUSINESS MEETING

Plenary

Ballroom

All NERA members are welcome to attend the annual NERA business meeting. This year we will be voting on an update to the NERA mission statement, so make sure to attend and have your voice heard.

As we face unprecedented times in this country, the NERA Board of Directors have taken time to evaluate our current mission statement to ensure that it encompasses the intended spirit of inclusion that NERA desires. At a special NERA board meeting this May, a few of the members proposed a new mission statement to be voted upon by the membership. It reads as follows:

The mission of the Northeastern Educational Research Association (NERA) is to encourage and promote high quality educational research and to create a venue for experienced and new researchers. NERA members come from all areas of education (e.g., academics, research and development, training and technical assistance agencies, public schools and state departments of education) and diverse backgrounds. NERA membership is open to individuals from all walks of life who have a commitment to excellence in the field of educational research.

### Friday, October 15, 1:00 – 1:30 PM

#### Session 20: PRESIDENTIAL ADDRESS

Plenary

Ballroom

Steven Holtzman, Educational Testing Service

NERA 2021 President

Join NERA 2021 President, Steven Holtzman, Educational Testing Service, for his presidential address, where he will discuss the importance of data in the education field today, specifically through the lenses of data literacy and student data footprints.

### Friday, October 15, 1:30 – 2:00 PM

Session 21: NERA CLOSING SESSION	
Plenary	Ballroom
Facilitators: Stoven Holtzman NEP & 2021 President: Hank Johnson Haife Mates	Flicaboth

Facilitators: Steven Holtzman, NERA 2021 President; Hank Johnson, Haifa Matos, Elisabeth Spratto, and Jonathan Steinberg, NERA 2021 Conference Co-Chairs; Kate Nolan, Frank Padellaro, Beth Ann Perkins, Duy Pham, NERA 2022 Conference Co-Chairs Join us as we wrap up the 2021 conference and present a preview from the 2022 conference cochairs!

### Friday, October 15, 2:00 – 4:00 PM

#### Session 22: CULTURALLY RESPONSIVE DATA LITERACY

Workshop

Merritt North

Facilitators: Ellen Mandinach, WestEd; Saroja Warner, WestEd

#### Culturally Responsive Data Literacy: A Necessary Skill Set for Educators' Professional Learning Trajectory

Data literacy has been a topic of interest and confusion for over a decade, often conflated with assessment literacy. Data literacy firmly espouses that the data educators need to make informed decisions are more diverse than simply student performance indices (sic, test scores). With the growing complexity of students and the more recent events that have surfaced inequities to the most challenged students, data literacy has become even more importantly which is why the construct or construct has transitioned into culturally responsive data literacy (CRDL). CRDL assumes an asset model, seeks a comprehensive understanding of students, and takes a whole child perspective to better address the interests, strengths, and backgrounds students bring to the classroom. This workshop will address the importance of CRDL and why educators learn to use data effectively and responsibly, beginning in educator preparation and being sustained and reinforced throughout their careers. The workshop will describe the skill set and dispositions of CRDL, what it means for educators to implement such knowledge, and the roles that educator preparation programs and school districts can and must play to help all educators to become data literate. The workshop will explore the foundational research and theory and the translation into practice. It will challenge educators to consider diverse sources of data and implicit biases that may lead to confirmation bias and unintentional inferences. The objective is to build awareness about the importance of CRDL and data ethics, made even more essential in the events of the past year in terms of better serving all students.

### **Workshop Presenters**



**Dr. Aronté Bennett** is an Associate Professor of Marketing and the Associate Department Chair of the Marketing & Business Law Department at Villanova University's School of Business (VSB). She received her BS and MBA from Florida A&M University, and her Ph.D. from New York University. For more than a decade, she has offered undergraduate and graduate courses on market research and consumer behavior. Her research focuses on marketplace access, race in the marketplace and vulnerable consumers; the findings from which have been published in the Journal of Consumer Psychology, the Journal of Public Policy and Marketing and the International Marketing Review. Dr. Bennett also serves as a Faculty Director in VSB's Office of Diversity, Equity, and Inclusion and as a Liaison for the Center of Marketing and Consumer Insights.

Aronté firmly believes that civic engagement is a responsibility to which we are each beholden. She is the President of The Junior League of Philadelphia, Inc. (JLP). Founded in 1912, JLP has more than 700 members and is dedicated to the development of women and community improvement. Dr. Bennett is also a member of the Board of Directors of the Fund for the Water Works, an organization committed to instilling an appreciation for the connections between daily life and the natural environment at the historic site of Fairmount Water Works, the nation's first urban water supply system.



**Felice D. Billups** is a Professor in the Educational Leadership Doctoral Program at Johnson & Wales University, where she teaches educational research and organizational behavior courses, specializing in qualitative and mixed methods research applications, and organizational culture studies.

Billups earned her Ed.D. in Higher Education Administration from George Peabody College at Vanderbilt University; her M.A. in Higher Education Administration from RI College; and her B.A. in Fine Arts History from Tufts University.

Dr. Billups is the author of *Qualitative Data Collection Tools: Design, Development, and Applications*, released by Sage Publications in January, 2020.



**Sergio Castro** (he/him) is a Ph.D. student in the Department of Educational Psychology, College of Education, at the University of Arizona. Sergio is minoring in statistics and is a graduate teaching assistant for introductory and advanced statistics graduate courses. The entry-level course utilizes a mix of R and SPSS (primarily R) to instruct students in t-tests, regression, and data management. The more advanced course focuses on factor analysis, canonical correlation, and discriminant function analysis using R. Sergio's research varies but includes identifying the effectiveness of learning strategies such as example generation, exploring academic entitlement measures and academic entitlement's underlying mechanisms, and non-traditional student success and access to/in higher education. He seeks to explore the academic entitlement and other measures' measurement invariance across groups to ensure equitable representation and interpretation in research.



**Monica Erbacher** (she/her) is an Assistant Professor in the Department of Educational Psychology, College of Education, at the University of Arizona. Trained as a quantitative psychologist, Monica teaches introductory (e.g., t-test, regression) through advanced (e.g., HLM, factor analysis, measurement theories) graduate statistics courses, all of which use R. Her research explores common attitudes in current generations of college students, such as academic entitlement, and how those attitudes may be misunderstood. More recently, Monica has taken interest in critical quant methods, using quantitative methods more responsibly by incorporating principles and techniques common in diversity, inclusion, equity, and critical research.



**Heather Harris** is a Data Scientist/Psychometric/Statistical Consultant working in the entertainment and education technology industries. While serving as a consultant for Solstice Studios, she worked on building statistical models for microtargeting audiences using various social media platforms for the movie Unhinged, which was the first widely released film following the onset of the pandemic. Currently, she works to coordinate similar microtargeting efforts for several entertainment brands and maximize social media brand interactions.



Ellen Mandinach is a Senior Research Scientist and a leading expert in the area of data-driven decision making at the classroom, district, and state levels. Her work over the past 20 years has focused on understanding how educators are using data to inform practice. She has written and spoken widely on the topic, and has served on a number of technical working groups and advisory boards on data use. Dr. Mandinach served as an expert panelist on the Institute of Educational Sciences practice guide for data-driven decision making and a National Center for Educational Statistics technical working group to understand how researchers can better use the statewide longitudinal data systems. She has been funded by the Spencer, Gates, Dell, and Kauffman Foundations to conduct a variety of research projects about data use. She led discussions, funded by the Spencer Foundation, about how schools of education can provide courses to build data literacy and what is needed to build a research agenda for data-driven decision making, as well as developed assessments of data literacy. She directed a project funded by the Dell Foundation to conduct the survey of the schools of education around how they prepare educators to use data. She led a study funded by the Gates Foundation, to create a definition of data literacy and another to examine data use in personalized learning environments. Dr. Mandinach is working with the Regional Education Laboratories in the West, Northeast and Islands, and Mid-Atlantic regions on data use. She is working with schools of education, teacher preparation programs, and professional organizations to help them integrate culturally responsive data literacy and data ethics into their work. She had advised the Data Quality Campaign about data literacy, served on an expert committee for the National Board of Professional Teaching Standards on teacher assessment and data literacy, and on the Advisory Council for the Data Use Standards Work Group. Most recently, she is helping to build the data infrastructure at the Nevada Department of Education, in districts throughout Vermont, and is developing materials on data privacy and data ethics for educator preparation. Dr. Mandinach has authored a number of publications for academic journals, technical reports, and five books. Recent books, Data Literacy for Educators: Making it Count in Teacher Preparation and Practice and Transforming Teaching and Learning Through Data-Driven

Decision Making, are volumes that help educators to make better use of data. Her most recent book is Data for Continuous Improvement: Steps Colleges of Education Must Take to Because a Data Culture. A forthcoming book focuses on data ethics in education. She has regularly presented at international, national, and regional conferences on education and psychology. She received the 2015 Paul D. Hood Award for Distinguished Contribution to the Field from WestEd. She has served as the President of the American Psychological Association's Division of Educational Psychology. She created the Data-Driven Decision Making in Education Special Interest Group of the American Educational Research Association and is serving as its first chair. She is a Fellow of APA and AERA. She received an AB in psychology from Smith College and a Ph.D. in educational psychology from Stanford University.



**James Smith** (he/him) is a doctoral candidate in the Department of Teaching Language and Sociocultural Studies, College of Education, and a Masters student in Data Science and Statistics at the University of Arizona. His interdisciplinary research leverages insights from the cognitive sciences to explore current methods and new approaches to investigate teaching, in particular mathematics teaching practice. Currently, James is working on his dissertation exploring evidence for interpretation and validity arguments of a novel measure of primary and secondary mathematics teaching practices.



**Christine Stevens** is Professor and Department Chair of Business Management at New England Institute of Technology. After an early career in sales and marketing for companies including NCR Corporation and GE Lighting, she transitioned into higher education. For the past several years, she has designed and taught marketing courses, among other business-related subjects, to share her practical experience with students.



Saroja Warner, NBCT, Ph.D., is a nationally recognized expert in educator workforce initiatives and culturally responsive teaching, leading and school cultures. She currently serves as the Director for Talent Development and Diversity at WestEd. In this role she provides strategic leadership for WestEd's technical assistance, research and policy work with state education agencies, district leaders and school-based educators focused on developing and retaining an effective, culturally responsive, and racially and linguistically diverse educator workforce and increasing educators' and leaders' use of policies and practices that promote successful and equitable learning outcomes for each student. Dr. Warner has also served as co-director of two Comprehensive Centers, federally funded education services centers, run by WestEd serving states in the mid-Atlantic and northeast regions of the U.S. Prior to joining the WestEd team she was the Director of Teacher Workforce Initiatives at the Council of Chief State School Officers (CCSSO). There she led several national initiatives including the Network for Transforming Educator Preparation (NTEP) and the Diverse and Learner-Ready Teachers Initiative (DLRT). Prior to that she served as the Chief for Educator Preparation Program Approval at the Maryland State Department of Education and as Senior Director for Performance, Measurement and Research at the American Association of Colleges for Teacher Education (AACTE). Dr. Warner started her career as a high school social studies teacher, earning national board certification in 2004 and renewing that certification in 2014. She also serves as faculty in the graduate teacher preparation program at the University of Maryland, College Park since 2008, teaching in the very program that prepared her to be a teacher and where she earned her doctorate, to support the development of tomorrow's culturally responsive teachers.

### **Invited Symposium**

#### Developing Intercultural and Global Competencies for Teachers through Global Education



**Helen A. Marx** is Professor of Curriculum and Learning, College of Education, Southern Connecticut State University in New Haven, CT. Her research focuses on the design of study abroad program design to support intercultural development for pre-service teachers. Marx has worked on a number of initiatives with NAFSA: Association of International Educators to support efforts to internationalize teacher education.



**Dr. Laura Baecher** is Professor of TESOL at Hunter College, City University of New York. Her research interests and publications relate to teacher education including educational technology in teacher learning, observation and coaching for English language teaching, and professional development in TESOL. Her recent books are *Study Abroad for Pre- and In-Service Teachers* and *Video in Teacher Learning: Through their Own Eyes.* She has served as the TESOL International's Teacher Education Interest Section Chair, The AERA Division K Classroom Observation SIG Chair, and as an English Language Specialist for the US Department of State.



**David M. Moss**, Ph.D., is an Associate Professor on the faculty of the Neag School of Education at the University of Connecticut. Specializing in curriculum studies and internationalizing U.S. teacher education, his current research interests are in the areas of education abroad program design & assessment and culturally sustaining pedagogies. As a scholar, he has published numerous articles and reform-minded books, including *Preparing Classroom Teachers to Succeed with Second Language Learners* (Routledge, 2014); *Reforming Legal Education: Law Schools at the Crossroads* (IAP, 2012); *Critical Essays on Resistance in Education* (Peter Lang, 2010); *Interdisciplinary Education in an Age of Assessment* (Routledge, 2008); *Portrait of a Profession: Teachers and Teaching in the 21st Century* (Praeger, 2005, 2008); and *Beyond the Boundaries: A Transdisciplinary Approach to Learning and Teaching* (Praeger, 2003). He was named a Teaching Fellow at the university, the highest honor awarded for instructional excellence and leadership. Dr. Moss has served as a keynote and featured speaker at scholarly societies, universities, and national/international conferences. He has extensive curriculum development and assessment experience and directs the Neag School of Education London Study Abroad program.



**Jon Simmons** is a doctoral student at the University of Connecticut, Neag School of Education, Department of Curriculum and Instruction. His research interests include internationalization of teacher education and the development of intercultural competence, human rights education in elementary schools, and discussion and dialogue in the classroom. He has worked as an elementary school teacher both in the United States and abroad and brings his extensive international experience to his instruction and research.



**Elizabeth Laura Yomantas** is a teacher educator and qualitative researcher. Her research interests include critical allyship and culturally responsive experiential education. Elizabeth enjoys conducting arts based research, particularly narrative inquiry.



**Ellie Holliday** is a lecturer and Coordinator of International Partnerships at the University of Kentucky College of Education. She earned her B.A. (International Studies) from the University of Kentucky and her M.A. (Diplomacy and International Commerce) from the Patterson School at UK. She is currently pursuing a Ph.D. in Educational Leadership at UK.



Sharon Brennan is an Associate Professor in the Department of Curriculum and Instruction in the College of Education at the University of Kentucky. She is a former Director of the Consortium for Overseas Student Teaching (COST). Her academic focus is globally competent teaching practice, teacher assessment, mentoring novice teachers and curriculum development.



**Danielle M. Carrier** is a Ph.D. candidate in the Department of Educational Theory and Practice in the Mary Frances Early College of Education at the University of Georgia. Her research interests include the theory and practice of culturally responsive teacher preparation at the intersection of U.S. history, politics, and policy. Prior to doctoral study, Danielle worked as an elementary teacher in a variety of settings and has won numerous teaching awards. She served in various leadership capacities with educators in Connecticut, the District of Columbia, Singapore, Cambodia, and Texas. Danielle earned her certificate in K-12 educational administration in 2016 from the University of St. Thomas in Houston. She most recently served as the Senior Graduate Student Representative for the American Educational Research Association (AERA) Division K, which connects U.S. and international scholars' research involving the role of teaching and teacher education in cultivating more equitable and just education systems.

Additional Speakers:

Clara Bauler, Adelphi University Devin Thornburg, Adelphi University Xiao-Lei Wang, Adelphi University

### **Invited Symposium**

#### **Inquiry Strategies for Life-Long Learning**

Moderator: Marcia A. B. Delcourt



#### Data-Driven Feedback and Coaching to Improve Inquiry Skills of Preservice Teachers within a Mixed-Reality Simulation

Wes J. DeSantis



and Marcia A. B. Delcourt

#### Music Teacher Perceptions of Inquiry-Based Learning in the Secondary School Music Ensemble Classroom

**Douglas** Coates



Frank LaBanca and Joseph Abramo

#### An Exploration of Student-Directed and Teacher-Directed Inquiry Learning on Creative Problem Solving, Critical Thinking, and Civic Responsibility

Stephanie L. Bell



and Marcia A. B. Delcourt

## Inquiry in Music Education: Theory and Practice Joseph Abramo



Rex Sturdevant



#### Developing an Inquiring Community of Practice with a Focus on STEM and Global Studies

Frank LaBanca



## **Invited Symposium**

#### **Habits of Mind**

Moderator: Bena Kallick



#### The Impact of Habits of Mind: An Exploratory Study



## The Relationship Between Habits of Mind and Performance Task Achievement in an International School in South-east Asia

Philip G. Muscott



# STAR: Supporting Teachers as Researchers (Fostering data-informed reflection in a pandemic)

Authors: Priscila Torres



#### Damian Bebell



### **Invited Panelists**

#### Perspectives on Incorporating Institutional Data into P-20 Infrastructure, Research, and Policy



**Dr. Kate Shirley Akers** joined the State System in January of 2019 as the Assistant Vice Chancellor for Advanced Data Analytics. In this role, she serves as an advisor to the Chancellor and oversees the work of the Advanced Data Analytics Shared Service team. She and her team work closely with university staff and faculty to collect accurate, timely data and create actionable research and reports for the System.

Prior to joining the State System, Dr. Akers led the work of the Kentucky Center for Statistics (KYStats), Kentucky's comprehensive, centralized, longitudinal data system. KYStats is responsible for producing meaningful, actionable statistics on Kentucky's education and workforce system. She received national recognition as an education data strategist and thought leader in the areas of longitudinal data and data governance.



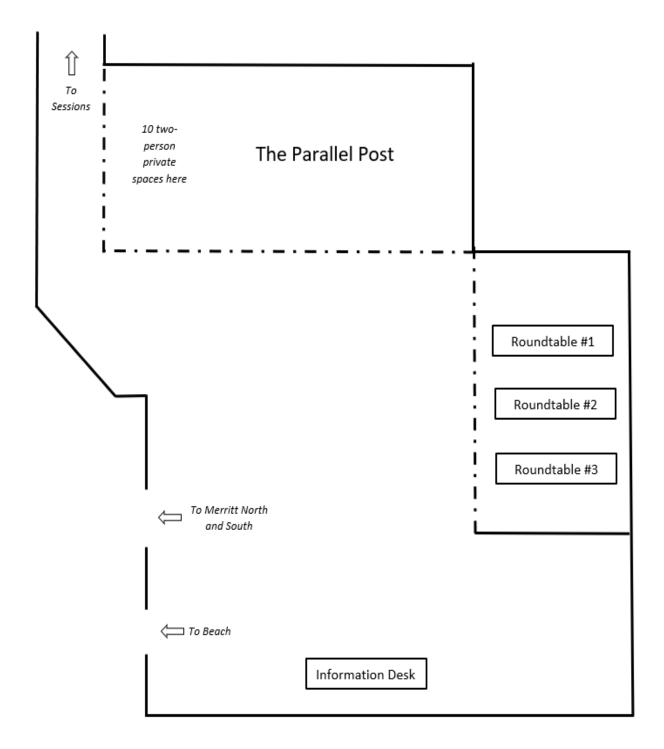
**Heather Kelly** has been with the University of Delaware since 1998. Her areas of expertise include institutional effectiveness and faculty workload. She has published four chapters on the latter topic including a chapter in The Handbook of Institutional Research. She has taught graduate level courses focusing on Planning, Governance, and Finance in Higher Education and Analyzing Faculty Workload, Performance and Compensation. She serves as the Accreditation Liaison Officer (ALO) and an Evaluator for the Middle States Commission on Higher Education (MSCHE). She is the President of the Association for Institutional Research (AIR), past Board Treasurer of AIR, and past President and Treasurer of the North East Association for Institutional Research (NEAIR). She was the recipient of the 2015 NEAIR Distinguished Service Award. She received a doctoral degree in Educational Leadership from the University of Delaware, a master's degree in Higher Education Administration from the University of the HERS (Higher Education Resource Services) Bryn Mawr Summer Institute.



**Lynn Letukas** is Director of Global Academic Programs and Certifications at SAS Institute. She leads an organization that develops and delivers scalable academic and workforce solutions, including supporting postsecondary programs and faculty in teaching and learning analytics as well as working to align college-career pathways in data science and analytics and help improve student outcomes. Lynn also leads the SAS' global certification program which develops credentials and exams to validate analytics skills.

Prior to joining SAS, Lynn was a research scientist at the College Board where she led largescale evaluations and impact and content validity studies for the SAT and Advanced Placement programs, and faculty at the University of Wisconsin-La Crosse. She is co-editor of *Measuring Success: Testing, Grades and the Future of College Admissions* (2018) and author of *Primetime Pundits: How Cable News Covers Social Issues* (2014). She received her PhD from the University of Delaware in Sociology with a focus on quantitative research methods and statistics.

## Virtual Hotel Layout in Gather.town



## Virtual Hotel Layout in Gather.town (Cont.)

