

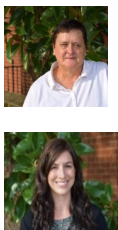


PROGRAM

Welcome to the fourth NCME special conference on classroom assessment! We are excited about our virtual format that will bring together researchers, K-12 practitioners, measurement specialists, and faculty to engage in dialogue, discussion and learning to strengthen the practice and potential of classroom assessment. In our initial planning for the conference we brought together resources from four Virginia universities to establish the theme and organization for the conference, making a special effort to include practitioners who are critical to the successful implementation of effective classroom assessment. Our team includes the following:



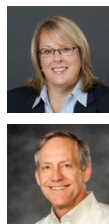
Dr. Tonya Moon
Michelle Hock



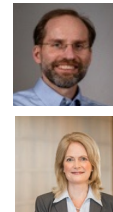
Dr. Divya Varier



Dr. Lisa Abrams
Dr. Jim McMillan



Dr. Chris Gareis
Dr. Leslie Grant



The conference is made possible with the generous support of NCME, Talley administrative services, and our sponsor, [edCount](#):



edCount supports federal, state, and local leaders in building and maintaining rigorous assessment systems. Services include strengthening of standards and assessments, as well as professional development, with a particular focus on serving students with disabilities and English learners.

edCount Contact: Lisa Rose (lrose@edCount.com)

The NCME Classroom Assessment Committee provided guidance and support for the conference. Members of the committee include:

Alison Bailey, Univ of California, Los Angeles
Caroline Wylie, Educational Testing Service
Mark Wilson, Univ of California, Berkeley
Neal Kingston, Univ of Kansas
Jade Caines Lee, Clark Atlanta Univ
James McMillan, Virginia Commonwealth Univ
K. Renae Pullen, Caddo Parish (LA) Public Schools
Michele Carney, Boise State Univ
Dustin Van Orman, Washington State Univ
Debbie Durrence, Gwinnett County (GA) Public Schools

We also appreciate the commitment of the following proposal reviewers:

Lisa Abrams Virginia Commonwealth Univ	Angela Lui Rutgers Univ
Heidi Andrade Univ at Albany	Scott Marion Center for Assessment
Shirley Auguste Jasaron Learning Institute	Jessica Marotta Marymount Univ
Susan Brookhart Brookhart Enterprises	Rob McEntarffer Lincoln (NE) Public Schools
Michele Carney Boise State Univ	James McMillan Virginia Commonwealth Univ
Carlos Chavez Univ of Minnesota	Tonya Moon Univ of Virginia
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Bryan Drost Rocky River City (OH) Schools	John Poggio Univ of Kansas
Debbie Durrence Gwinnett County (GA) Public Schools	Kendra Pullen Caddo Parish (LA) Public Schools
Steve Ferrara Cogna	Edward Roeber Michigan State Univ
Larue Fitch L. M. Fitch Consultants	Holly Rutledge Cobb County (GA) School District
Chris Gareis William & Mary	Natalie Schelling Indiana Univ Kokomo
Chad Gotch Washington State Univ	Madeline Schellman Univ of Georgia
Leslie Grant William & Mary	Colt Turner The Bay Academy
Mary Hansen Robert Morris Univ	Dustin Van Orman Washington State Univ
Melissa Jenkins Univ of Mary Washington	Divya Varier George Mason Univ
Mark Johnson Cogna	Sarah Wellberg Univ of Colorado Boulder
Darin Kelberlau Millard (NE) Public Schools	Mark Wilson Univ of California, Berkeley
Neal Kingston Univ of Kansas	Caroline Wylie ETS
Jade Caines Lee Clark Atlanta Univ	Rongchun Zhu Savvas Learning Co.

Conference Overview

- The conference begins Thursday, October 21 at 10:00 am EDT, and continues on Friday, October 22, until 3:30 pm. Please note that the last session on Friday will include a conversation with the NCME Classroom Assessment Committee. This important session will provide participants the opportunity to discuss future directions for this conference.
- Like the 2021 NCME Annual Conference, [Pathable](#) is the virtual platform to host the conference. This Zoom-based system will be available to conference registrants on October 18th, and will allow you to become familiar with the system, build your conference agenda and personal profile, and create downloadable calendar invites.
- The link to the conference evaluation form will be sent to participants following the meeting – your input is needed!

There are five types of sessions:

- **Keynote Addresses** formatted as plenary session webinars; two on day one, one on day two.
- **Symposia** consisting of several concise, oral presentations on a common topic with contrasting or complementary points of view and audience discussion.
- **Panel Discussions** consisting of a planned conversation involving dialogue and/or debate on a common topic by 3-6 presenters, with audience discussion.
- **Paper Sessions** consisting of 10-12 minute individual paper presentations grouped together by a common topic or theme, with audience discussion.
- **Posters** featuring brief individual presentations of a research project or program, with audience interaction.

Participants will select symposia, panel, and paper sessions that occur during one-hour concurrent blocks.

Posters are presented at the end of the first day of the conference. *We encourage everyone to attend one or more poster presentations to support these researchers.*

Every session, with the exception of Poster Presentations, will be recorded and available to registrants within 48 hours for two months following the end of the conference.

In addition, the platform will allow for scheduling of meetings with other registrants at designated times over the two days of the conference.

At-a-Glance Schedule pages 4-9

Full Schedule* Day One: pages 10-24
Day Two: pages 25-29

*Note: The full schedule contains all presenter/author names; the virtual program only includes presenters who have registered for the conference.

At-a-Glance Schedule

DAY 1: THURSDAY, OCTOBER 21

Note: All Times are Eastern Daylight Times (EDT)

CONFERENCE WELCOME & KEYNOTE PLENARY SESSION (10:00 a.m. – 11:15 a.m.)

Welcome

James McMillan, Virginia Commonwealth Univ | Derek Briggs, Univ of Colorado Boulder

Keynote: Rethinking Assessment Literacy

Chris DeLuca, Queen's Univ | Peggy Chen, Hunter College, CUNY | Dan Farley, Oregon Dept. of Education

10-Minute Break

CONCURRENT SESSION I (11:25 a.m.-12:25 p.m.)

Symposium: Helping Local Educators to Use Formative Assessment

Edward Roeber | Jennifer Wojcik | Kim Young | Dan Farley | Caroline Wiley

Panel Presentation: Illuminating Preservice Teachers' Development of Assessment Literacy

Chad Gotch | Dustin Van Orman | Reanna Holycross | Emma McCain | Katie Taisey | Kristi Tippett | JT Torres

Individual Paper Session A: Exploring Validity Evidence and Frameworks for Classroom Assessment

- **Centering Teachers: Alignment as the Functional Perspective**
Gabriel Reich | Kimberly Bowman
- **Changing the Face of Accountable Assessment**
Richard Lehrer | Mark Wilson
- **Social Thinking Assessment: An Instrument for the Social Studies Classroom**
Nicole Abricot Marchant
- **Measuring English Learners' Writing Development Using Written Expression CBMs**
Patrick C. Kennedy

Individual Paper Session B: Challenges and Opportunities for Assessment in Science Classrooms

- **Balancing Tensions between the NGSS Vision and Realities of Classroom Assessment**
Gregg Bluth | Brian Gane | Amanda Gonczi | Jackie Huntoon | Stephanie Tubman | Barb McIntyre
- **Disrupting Conventional Science Task Development to Reduce Costs and Maintain Quality**
Paul Nichols
- **Co-design and Evaluation of a Learning Map-Based Dashboard to Support Formative Assessment**
Robert P. Dolan | Kim Ducharme

10-Minute Break

CONCURRENT SESSION II (12:35 p.m.-1:35 p.m.)

Symposium: Uses, Advantages, and Challenges of Scenario-Based Assessment

Eowyn Winchester | Leslie Nabors Oláh | Jesse Sparks

Panel Presentation: Evidence-Centered Classroom Assessment

Russell G. Almond | James Hernandez | Jeannine Turner

Individual Paper Session C: Supporting Teacher's Data Use – The Role of Coursework, Culture, and Leadership

- **Virginia Secondary Preservice Teacher Preparation for DDDM**
Tonya R. Moon | Coby Meyers | Jillian McGraw | Jen Pease | Stephanie van Hover
- **Assessment Courses for ESOL Teachers: Aligning Professional Standards, Research, and Practice**
Lorraine V. Pierce | Thuy Tu
- **Impact of Schools' Culture of Assessment on Teachers' Data-Driven Decision Making**
Natalie Schelling
- **Data Use Processes in Rural Schools Undermining Instructional Change**
Coby Meyers | Tonya R. Moon | Jane Patrick | Catherine Brighton

Individual Paper Session D: Advancing Equity in Assessment Practice

- **Perspectives on the Standards of Learning and the 5 C's: State Policies in Action**
Sarah Beach
- **A Study of Virginia Educators' Equity-Oriented Assessment Practices**
Divya Varier | Marvin Powell | Stephanie Dodman | Elizabeth DeMulder | Jenice View
- **Remodeling Classroom Assessment in Postcolonial Nation State: The Challenge of Praxis**
Jerome De Lisle | Carla Kronberg | Tracey Lucas | Nalini Ramsawak-Jodha | Murella Sambucharan-Mohammed
- **The Role of Hip Hop Pedagogy in Antiracist Classroom Assessment Practices**
Jade Caines Lee

30-Minute Break

KEYNOTE PLENARY SESSION (2:05 p.m.-3:05 p.m.)

Keynote: Expanding the Evidence of Learning to Promote Equity Through Formative Classroom Assessment

Lorena Llosa, New York Univ

10-Minute Break

CONCURRENT SESSION III (3:15 p.m.-4:15 p.m.)

Symposium: The Reciprocal Relationship Between Resource Development and Practical Implementation

Edward Roeber | Lindsey Howe | Kristy Walters | Tara Kintz | Kimberly Young | John Lane

Symposium: Leveraging Formative Assessment in Virginia using Just in Time Mathematics Quick Checks

Melody Bushley | Tina Mazzacane | Donna Meek | Angela Byrd-Wright | Lynn Meade

Panel Presentation: Moving Towards a Model for a Balanced, Comprehensive Anti-racist Assessment System

Susan Lyons | Sarah Jay | Dawn Schearer-Cohen | Fiona Hinds

Individual Paper Session E: New Directions in Assessment Theory and Practice

- **Assessing Student Learning by Design: Principles and Practices for Teachers and School Leaders**
Steve Ferrara | Jay McTighe
- **Secondary Mathematics Teachers' Use of Computational Items before and during Distance Learning**
Sarah Wellberg
- **Shifts in Classroom Assessment during the COVID-19 Pandemic**
Suzanne Shelburne

10-Minute Break

CONCURRENT SESSION IV (4:25 p.m.-5:25 p.m.)

Symposium: Implications of Research on 21st-Century Skills for Classroom Instruction, Assessment, and Grading

Carla Evans | Jeri Thompson | W. Chris Brandt | Valerie Greenhill

Symposium: Using Classroom Assessment to Promote Civic Learning

Dante Cisterna | Laura Hamilton | Caroline Wylie | Gregory Vafis | Lei Liu | Tamara (TJ) Heck

Panel Presentation: Using Language Learning Progressions to Guide Assessment Modifications for New Speakers of English

Alison L. Bailey | Laureen Avery | Heather Brown | Christine Butler | Gavi Ziu-Pires | Sandy Chang

Individual Paper Session F: Assessment Strategies and Tools in English and Mathematics Classrooms

- **Feedback Strategies, Learning Progressions, and Formative Assessments for Improving Pedagogy**
Ye Yuan
- **Using Rubrics as an Instructional Tool for Teaching Writing to Grade 3 Female Students**
Susan Gwee | Joanne Khaw | Fanny Chan
- **Making Inferences about Quantitative Understanding/Construction in a Classroom Setting**
Catherine Kaduk

10-Minute Break

CONCURRENT SESSION V (5:35 p.m.-6:35 p.m.)

POSTERS

- **Supporting Instruction and Student Learning through Interaction Maps**
Eric Ho | Minjeong Jeon
- **Automatic Story Generation for Reading Comprehension**
Seyma N. Yildirim-Erbasli | Okan Bulut
- **Leveraging Performance Assessment to Engage All Learners and Inform Instruction**
Kelley Aitken | Annie Evans
- **Designing Technology-Enhanced Science Assessment Tasks for Students to Demonstrate Knowledge-in-Use**
Brian Gane | Samuel Arnold | Diksha Gaur | Daniel Damelin

- **Adapting Assessments on the Fly: An Example of a Classroom Teacher Meeting the Needs of Students**
Lisa Keller
- **The Communication Conundrum: Clarifying Comparable Assessment Terminology among Teachers**
Robyn Pinilla
- **Control Rater Effects to Compare Mathematics Teaching Performance**
Chunling Niu
- **Analyzing Strategies for Teaching Assessment Design to Preservice Teachers**
Bryan Drost
- **Resources and Support That Impact Teachers' Capacity to Conduct Data-Driven Decision-Making**
Natalie Schelling
- **The Impact of the Changes in Provincial Assessments on Teachers' Summative Assessment Practices**
Yan (Lizzie) Yan
- **The Effects of Including Conflicts in Contextual Mathematics Assessment Items**
Madeline Schellman | Laine Bradshaw
- **Daily Formative Assessment Practice Effects on Student Agency and Achievement in a High-Poverty District**
Barbara Jones | Nancy Gerzon
- **Case Studies of Three Science Teachers' Efficacy and Assessment Practices in Manitoba High Schools**
Monsurat Raji
- **Exploring Validity of Automated Essay scoring among English Language Learners**
Yue Huang | Joshua Wilson
- **An Investigation of Teachers' Perceptions of Assessment Tasks**
Megan Schmidt | Michele Carney | Angela Crawford
- **Opportunity or Crisis: Teachers' Experiences with Classroom Assessment during the Pandemic**
Carla Kronberg | Jerome De Lisle | Tracey Lucas | Nicola Mark | Murella Sambucharan-Mohammed | Nalini Ramsawak-Jodha | Vivian Alexander
- **What's in a Name? Selected Secondary English Teachers' Experiences of Engaging in Formative Assessment**
Sarah P. Hylton

DAY 2: FRIDAY, OCTOBER 22

KEYNOTE PLENARY SESSION (10:00 a.m.-11:00 a.m.) (EDT)

Keynote: Strengthening Links Between Classroom Assessment and State Summative Assessment in Mathematics

Gabby Cárdenas, Para Los Niños Charter Elementary School, Los Angeles | Dan Farley, Oregon Dept. of Education | Molly Faulkner-Bond, WestEd | Christine Harrison, King's College London | Caroline Wylie, ETS | Eric Crane, WestEd | Deborah Sigman, WestEd | Alison Bailey, UCLA

10-Minute Break

CONCURRENT SESSION VI (11:10 a.m.-12:10 p.m.)

Symposium: Advancing Beyond Multiple-Choice? Classroom Assessment in Secondary History Education

Stephanie van Hover | David Hicks | Suzanne Shelburne | Mike Gurlea | Gabriel Reich

Symposium: Implementing Formative Assessment Practices: The Role of Multiple Layers of Sustained Support

Edward Roeber | Kimberly Young | Tara Kintz | John Lane

Symposium: The Ins and Outs of Classroom Assessment: Specific Examples and Applications

Carolina Lopera-Oquendo | Anastasiya A. Lipnevich | Jeff Smith | Jonathan Gutterman | Javier Fernández Ruiz | Ernesto Panadero

Symposium: Application of Needs Models to Support Sociocultural Approaches to Improving Assessment Literacy

Carla Evans | Erika Landl | Jeri Thompson | Charlie DePascale

10-Minute Break

CONCURRENT SESSION VII (12:20 p.m.-1:20 p.m.)

Symposium: Using Technology-Enhanced Tasks to Assess Three-Dimensional Science Sense-Making

Laura Wright | Heather Harkins | Linda Malkin | Amelia Gotwals

Symposium: Including Classroom Assessments as a Critical Contributor in the Coherence of an Assessment System

Christina Schneider | Melissa Fincher | Jan Blose | Rhonda True | Ellen Forte

Invited Panel Presentation: The Magic that Happens when Teachers Understand their Subject matter and Apply Formative Assessment Strategies in their Classrooms

Heidi Andrade | Sue Brookhart

Panel Presentation: Principles, Not Standards, for Classroom Assessment

Scott Marion | Lorrie Shepard | Erin Furtak | James Pellegrino

30-Minute Break

CONCURRENT SESSION VIII (1:50 p.m.-2:50p.m.)

Symposium: Exploring Reporting and Sense-Making: Teacher Supports for Scenario-Based Assessments

Caroline Wylie | Leslie Nabors Oláh | Sharon Slater | Christine Lyon

Symposium: Critical and Sociocultural Approaches to Classroom Assessment in STEM Learning Environments

Erin Furtak | Clarissa Deverel-Rico

Panel Presentation: Redefine the Student Role in Classroom Assessment: Policies and Practices to Strengthen Learner Agency

Nancy Gerzon | Lorrie Shepard | Sean Ross | Larissa Peru | Angelica Duddlestone | William Kotter | Anissa Jimenez

Panel Presentation: Why We Must Have Culturally & Linguistically Responsive and Sustaining Classroom Assessments

Kristen Huff | Michael Rodriguez | Jennifer Randall | Maria Hamdani | Mya Poe | Billy Green

10-Minute Break

FINAL PLENARY SESSION (2:55 p.m.-3:30 p.m.)

Wrap Up and Future Directions Conversation

NCME Classroom Assessment Committee

Full Schedule

DAY 1: THURSDAY, OCTOBER 21

Note: All Times are Eastern Daylight Times (EDT)

CONFERENCE WELCOME & KEYNOTE PLENARY SESSION (10:00 a.m. – 11:15 a.m.)

WELCOME

James McMillan, Virginia Commonwealth Univ | Derek Briggs, Univ of Colorado Boulder

KEYNOTE: RETHINKING ASSESSMENT LITERACY

Chris DeLuca, Queen's Univ | Peggy Chen, Hunter College, CUNY | Dan Farley, Oregon Dept. of Education

In this presentation, our speakers will provoke a multi-perspective conversation on the current state of the assessment literacy field to rethink the role and purpose of assessment literacy in contemporary education.

10-Minute Break (11:15-11:25)

CONCURRENT SESSION I (11:25 a.m.-12:25 p.m.)

Symposium: Helping Local Educators to Use Formative Assessment

Dan Farley, Oregon Dept. of Education | Edward Roeber, Michigan Assessment Consortium | Caroline Wiley, ETS | Jennifer Wojcik, Maryland Dept. of Education | Kim Young, Michigan Dept. of Education

Several states are engaging educators in learning about the formative assessment process, based on the CCSSO FAST SCASS (2017) formative assessment definition. Efforts include workshops, material resources, and online learning opportunities. Maryland, Michigan, and Oregon have approached the challenge of providing educator professional learning in different ways, leading the panel and the audience to consider the advantages and challenges of each approach, and how others can apply the best of the different approaches to their work in promoting educator use of the formative assessment process. The symposium will address the following questions: How can state education agencies encourage the use of the formative assessment process in its classrooms? What different approaches to promoting the formative assessment have been tried and how have these efforts fared? What can we learn about promoting teacher use of the formative assessment process from a comparative analysis of different state approaches?

Panel Presentation: Illuminating Preservice Teachers' Development of Assessment Literacy

Chad Gotch, Washington State Univ | Dustin Van Orman, Washington State Univ | Reanna Holycross, Washington State Univ | Emma McMMain, Washington State Univ | Katie Taisey, Washington State Univ | Kristi Tippett, Washington State Univ | JT Torres, Quinnipiac Univ

This moderated panel discussion will provide a 360-degree exploration of preservice assessment education. Teacher educators, researchers, and preservice teachers will discuss conceptual approaches to assessment, first-hand experiences with assessment education, a synthesis of research on formative assessment in teacher education,

preservice teachers' assets and areas of need, and structural affordances and barriers in preservice programs. The panel will elaborate on challenges in preparing teachers for assessment literate practice, and provide unique insight into assets and efforts that can rise to meet the challenges. In line with the conference theme, they will discuss tensions between knowledge gained through research and knowledge gained through experience as instructors. Panel discussion will also highlight overlap between these sources of knowledge, such as success with modeled practices, feedback on teacher approaches, and dialogue around assessment purposes and uses.

Individual Paper Session A: Exploring Validity Evidence and Frameworks for Classroom Assessment

Session Chair: James McMillan, Virginia Commonwealth Univ

- **Centering Teachers: Alignment as the Functional Perspective**

Gabriel Reich, Virginia Commonwealth Univ | Kimberly Bowman

In this presentation, we will propose a framework that draws on empirical research with teachers to flesh out what Kane and Wools (2020) called the functional perspective on classroom-assessment design and validation. The functional perspective refers to teachers' criteria for assessment design and validation, defined by Kane and Wools (2020) as: "how well the assessment serves its intended purposes" (p. 11). The paper describes validity as a quality that emerges from assessment-design practice that includes consideration of the appropriateness of an assessment design, and its effectiveness in reference to an analysis of student work. That framework emerged from analysis of a year-long professional development (PD) project with secondary social studies teachers in a Virginia district. The framework focuses practitioners on the alignment of an assessment to teachers' learning goals, the content, the pedagogy, and their institutional context.

- **Changing the Face of Accountable Assessment**

Richard Lehrer, Vanderbilt Univ | Mark Wilson, Univ of California, Berkeley

We describe an innovative approach to assessment in K-5 mathematics that blends the productive characteristics of summative and formative assessment to generate an assessment system that is accountable to students and teachers in terms of actionable information for improving classroom instruction, but one that also meets the demands of psychometric quality for purposes of system accountability. In this approach, assessments across multiple levels of the system, ranging from evidence of student learning noticed by teachers during moments in the classroom to formative assessments to end-of-year summative tests, are integrated by employing a common set of constructs to characterize student thinking. During the course of a multi-year researcher-teacher partnership, teachers developed a shared, construct-centered vision of learning. Consistent with teachers' common vision, Rasch analysis provided evidence for the validity of the hypothesized construct maps, and also revealed coordination between in-classroom observations and the more traditional, summative estimates of student learning.

- **Social Thinking Assessment: An Instrument for the Social Studies Classroom**

Nicole Abricot Marchant, Pontifical Catholic Univ of Chile

A Social Thinking instrument was analyzed regarding its validity's evidence to support the social science classroom assessment. 175 recent high school graduate's students wrote a speech based on a social controversy. Their responses were scored using a designed scoring guide. Interjudge and internal consistency reliability analyses, multidimensional IRT and Structural Equation Modelling were applied. Inter-judge reliability was acceptable and the "Explanation", "Sources Analysis", and "Argue and Propose" dimensions presented acceptable internal consistency indices. However, the reliability was lower for the "contextualization" dimension. A Multidimensional model with these four dimensions fits better than a Unidimensional Model. Finally, a positive relationship between Social Thinking and school achievement was expected, however it was not confirmed by the evidence. Our findings support an authentic task for social studies classroom assessment and the viability of measuring social thinking as a multidimensional construct. Ideas to improve the instrument are presented.

- **Measuring English Learners' Writing Development Using Written Expression CBMs**

Patrick C. Kennedy, Univ of Oregon

Curriculum-based measures (CBMs) are widely used to assess student risk and monitor progress in many content areas, but little research exists regarding the utility of these measures for English learners (ELs). This presentation reports on analyses of writing CBMs administered to second grade ELs in both English and Spanish at multiple times during the school year to demonstrate that these measures (a) reliably discriminate ELs writing skills, and (b) are sensitive to growth. Measures of both productivity and accuracy showed substantial, relatively normally distributed variability at all administrations. Average scores for English indices increased across administrations at a rate consistent with normative rates of growth observed among English proficient students and increased more quickly than the same indices in Spanish. This suggests that teachers can use brief, easily administered measures of writing to differentiate Spanish speaking English learners (ELs) along a wide range of productivity and accuracy indices.

Individual Paper Session B: Challenges and Opportunities for Assessment in Science Classrooms

Session Chair: Chris Gareis, William & Mary

- **Balancing Tensions between the NGSS Vision and Realities of Classroom Assessment**

Gregg Bluth, Michigan Technological Univ | Brian Gane, Univ of Illinois Chicago | Amanda Gonczi, Michigan Technological Univ | Jackie Huntoon, Michigan Technological Univ | Stephanie Tubman, Michigan Technological Univ | Barb McIntyre, Michigan Technological Univ

The Mi-STAR project has developed a Grade 6–8 curriculum that covers the middle school NGSS Performance Expectations. The Mi-STAR curriculum, which includes three dimensional, integrated assessments, is used by 1000+ teachers and 100,000+ students across Michigan. During pilot and field testing, we encountered tensions between our commitment to developing NGSS-aligned assessments while maintaining flexibility for teachers to use and/or adapt assessments to work with their classroom realities. Teachers need support because adaptations risk breaking NGSS alignment. We will share some current approaches: strategic use of varied item formats to reduce student and teacher time; additional scaffolding of 3-D sense-making within item bundles; a Professional Learning program to improve teacher awareness of the vision, demands, and value of NGSS-aligned curricula and assessments. Key issues remain which we would like to explore with this community, including adapting assessments for diverse classrooms and ensuring assessments meet teachers' needs.

- **Disrupting Conventional Science Task Development to Reduce Costs and Maintain Quality**

Paul Nichols, Planful Learning and Assessment

The Phenomenation app supports teachers in writing Next Generation Science Standards (NGSS) -aligned assessments for NGSS classroom implementation. The NGSS has resulted in dramatic growth in development time and cost of science assessment using conventional test development practices. Districts and states are unable to afford enough science tasks to support classroom needs. Phenomenation reduces brainstorming churn for teachers writing science assessments by offering hundreds of standards-aligned phenomena ideas and draft questions identified by an automated web search algorithm employing natural language processing and principled assessment design. This technology-supported approach preserves teachers' role, versus an automated approach which replaces teachers, while improving velocity and reducing cost of science assessment development. Examples of phenomena ideas, draft questions, and metadata will be shared.

- **Co-design and Evaluation of a Learning Map-Based Dashboard to Support Formative Assessment**

Robert P. Dolan, CAST | Kim Ducharme, CAST

We will report on the usability and utility of a prototype teacher dashboard designed to provide instructionally embedded, NGSS-aligned science task results contextualized within dynamic learning map (DLM) models to support fine-grained instructional decision-making. The dashboard was created through a rigorous co-design process with teachers and applied Universal Design for Learning (UDL) principles. The dashboard's potential for

supporting effective formative assessment was evaluated through a small-scale usability and utility study with elementary, middle, and high school teachers. Teachers found that the dashboard, and in particular the learning map model-based presentation of student results, effectively conveyed data in a means conducive to informing instructional decision-making. In particular, the ability to alternate between familiar, table-based data representations and novel, learning-map overlay views enhanced teachers' understanding of the dashboard, its usability, and its perceived utility. Furthermore, teachers believed the dashboard would greatly improve effective communication with students, parents/guardians, other teachers, and administrators.

10-Minute Break (12:25-12:35)

CONCURRENT SESSION II (12:35 p.m.-1:35 p.m.)

Symposium: Uses, Advantages, and Challenges of Scenario-Based Assessment

Eowyn Winchester, ETS | Leslie Nabors Oláh, ETS | Jesse R. Sparks, ETS

Scenario-based assessments (SBAs) provide students with a purpose and context for engaging in cognitive tasks. We used various methods to investigate the uses, advantages, and challenges of interim SBAs designed for middle school. Three papers describe results from (1) a randomized experiment evaluating the impact of scenarios on mathematics assessment, (2) a classroom study examining teacher and student use of SBAs for English language arts (ELA), and (3) discussion groups tasked with exploring design considerations for scenarios that are culturally relevant for diverse groups of students. Experimental results show that scenarios did not increase difficulty or cognitive load. Classroom study results indicate that teachers valued SBAs for classroom use but experienced some challenges in using them to support instructional decision-making. Discussion groups highlighted that current and culturally relevant topics may broaden engagement in SBAs but may be in tension with fairness guidelines. Student, teacher, and developer perspectives are discussed.

Panel Presentation: Evidence-Centered Classroom Assessment

Russell G. Almond, Florida State Univ | James Hernandez, Florida State Univ | Jeannine Turner, Florida State Univ

Evidence-centered assessment design (ECD) has proved useful for developing formal assessments. This hands-on workshop applies ECD principles to informal and semi-formal assessments in the classroom. Evidence-centered Classroom Assessment (ECCA) involves four worksheets: (1) skill maps, (2) evidence rubrics, (3) activity guides, and (4) assessment plans, an extension of the weekly plans many teachers must already create. Participants will learn how to use the worksheets through exploring examples and small group activities. The key assumption of ECCA is that both good assessment and good instruction lie in the liminal space between what a student can and cannot yet do. Identifying factors that make an activity more or less difficult provides the teacher with opportunities for adapting lessons. Identifying observations that provide good evidence primes a teacher to know when to make those adaptations.

Individual Paper Session C: Supporting Teacher's Data Use – The Role of Coursework, Culture, and Leadership

Session Chair: Dustin Van Orman, Washington State Univ

- **Virginia Secondary Preservice Teacher Preparation for DDDM**

Tonya R. Moon, Univ of Virginia | Coby Meyers, Univ of Virginia | Jillian McGraw, Univ of Virginia | Jen Pease, Univ of Virginia | Stephanie van Hover, Univ of Virginia

There continues to exist little understanding of how preservice teacher candidates are prepared to step into the role of data user upon graduation (Mandinach et al., 2015). What is clear is that their curricular vision and use of strategies and tools are shaped by their program experiences (e.g., Kang & Windschitl, 2018). If data use is considered to be a pillar for responsive instruction to address student needs, a systemic, comprehensive, and strategic plan across institutions of higher education for preparing preservice teachers to use data should exist

rather than a piecemeal approach by individual institutions that ultimately results in inconsistent or varied levels of progress (Mandinach et al., 2015). This presentation will share study findings on the degree to which data literacy is incorporated into existing coursework in the preparation of Virginia preservice teacher candidates and offer recommendations for future training of preservice teachers in the area of data literacy.

- **Assessment Courses for ESOL Teachers: Aligning Professional Standards, Research, and Practice**

Lorraine V. Pierce, George Mason Univ | Thuy Tu, George Mason Univ

This presentation reports on a descriptive mixed-methods study of assessment courses offered by nationally recognized teacher preparation programs for pre-service English as a second language (ESOL) teachers in Grades PreK-12. Courses were examined to determine alignment of content and performance requirements with professional standards and research on teacher assessment literacy, as well as to identify commonalities and differences among courses. Forty-eight assessment course instructors across 22 states were invited to complete an online survey, participate in an interview, and submit a course syllabus for review. Results indicate that most courses are aligned with professional standards calling for knowledge of principles of validity and reliability and practical classroom-based and formative assessment strategies, such as using assessment data to make instructional decisions. However, gaps were identified between course content, professional standards, and research on teacher assessment literacy. Implications for ESOL assessment course design will be discussed.

- **Impact of Schools' Culture of Assessment on Teachers' Data-Driven Decision Making**

Natalie Schelling, Indiana Univ - Kokomo

This presentation examines the influences of schools' culture of assessment on elementary teachers' data-driven decision making (DDDM) practice by addressing two research questions: 1) What individuals or groups impact teachers' DDDM practice? and; 2) How do schools' culture of assessment impact teachers' perceptions about their capacity to conduct DDDM? The study utilized an exploratory sequential mixed methods design, which allowed the research to be grounded in teachers' actual realities rather than researchers' assumptions. In focus groups, Teachers discussed the impact of their schools' culture of assessment on their engagement with DDDM. A quantitative survey then investigated the relationship between teachers' perceptions of their schools' culture of assessment on their capacity to conduct DDDM and their intention to conduct DDDM. The presentation will argue that schools' culture of assessment should be addressed in order to support teachers use of DDDM.

- **Data Use Processes in Rural Schools Undermining Instructional Change**

Coby Meyers, Univ of Virginia | Tonya R. Moon, Univ of Virginia | Jane Patrick, inquirED | Catherine Brighton, Univ of Virginia

Data use has become a priority in educational systems throughout the world under the belief that rational instructional decisions can be tailored to individual learner needs. In this study, we analyze interview and observational data collected over the period of one academic year in four elementary schools in one rural school district. We consider results through a conceptual framing of collective leadership to understand how leaders across district, school, and classroom levels do or do not support data use in the school system. Among our findings, data use is espoused and portrayed but generally unsupported. Data team meetings and structures are embedded in school cultures, but they are mostly managed and routine, prioritizing expediency and process over instructional adaptation or response. As a result, we conclude that the establishment of data team meetings and related structures is critical but insufficient to improve instruction and increase student learning.

- **Effects of Teaching Experience and Schools' Professional Development Program on Classroom Assessment**

Roti Chakraborty, Georgia State Univ | Phylcia Thompson, Georgia State Univ

Teachers' classroom assessment practices are influenced by various factors, such as their experiences, beliefs, assessment literacy, and school assessment policies. Using the PISA 2018 US dataset, we examined the effects of teaching experiences and schools' professional development programs on two specific classroom assessment practices: i) teachers develop and administer their own assessment and ii) teachers

provide written feedback on student work in addition to a mark, i.e., numeric score or letter grade. A multilevel logistic regression approach was used for the analysis, where level-1 unit of analysis was 1,812 teachers and level-2/cluster unit was 158 schools. Findings show that school's initiative of involving their teachers in professional development programs had a significantly positive effect on teachers' practice of providing written feedback ($p = 0.039$). Teachers provided written feedback more frequently in schools that involved teachers in professional development programs.

Individual Paper Session D: Advancing Equity in Assessment Practice

Session Chair: Neal Kingston, Univ of Kansas

- **Perspectives on the Standards of Learning and the 5 C's: State Policies in Action**

Sarah Beach, Univ of Virginia

Virginia policy mandates that teachers instruct on the Standards of Learning, assessed by standardized, high-stakes tests, and the 5 C's: collaboration, communication, citizenship, creative thinking, and critical thinking skills. This case study investigates the implementation and meaning-making of these two policies by stakeholders to illuminate the differences between policy-in-intention and policy-in-action.

- **A Study of Virginia Educators' Equity-Oriented Assessment Practices**

Divya Varier, George Mason Univ | Marvin Powell, George Mason Univ | Stephanie Dodman, George Mason Univ | Elizabeth DeMulder, George Mason Univ | Jenice View, George Mason Univ

Traditional approaches to preparing educators for assessment emphasize measurement principles without adequate consideration for classroom realities. We argue that effective assessment practice requires teachers to develop a critical awareness of the influence of contextual factors on assessment and their own conceptions about the purposes of assessment (Xu & Brown, 2016; Pastore & Andrade, 2019). We explored the connection between teachers' perceptions about equity and assessment in a survey of approximately 600 Virginia Prek-12 educators. The aim of the project was to understand educators' attitudes and perceptions toward a variety of assessments and their readiness to apply an equity-oriented approach to assessment use. Findings will help identify professional learning needs in the area of assessment, particularly as a lever for equity as states begin to attend more intentionally to equity and changing student populations.

- **Remodeling Classroom Assessment in Postcolonial Nation State: The Challenge of Praxis**

Jerome De Lisle, Univ of the West Indies | Carla Kronberg, Univ of West Indies | Tracey Lucas, Univ of the West Indies | Nalini Ramsawaj-Jodha, Univ of West Indies | Murella Sambucharan-Mohammed, Univ of the West Indies

There is growing awareness of the difficulty in implementing formative assessment. The trend is worldwide although there might be greater difficulty in achieving change in contexts of the global South. The role of professional learning is critical. In postcolonial contexts, we argue for a design that emphasizes the processes of learning, unlearning, and relearning (LUR) to provide both motivation and cognitive change. This paper discusses the efficacy of a postgraduate course designed to promote LUR through collaboration, expert support, self-reflection and opportunities to implement assessment tasks. Assessment praxis centers on implementation of a classroom assessment model, the FPSI, which emphasizes Formative, Performance, 21st Century skills and Integrated Learning. To judge efficacy, we analyze focus group and individual interviews from three cohorts of students. We examine teachers' experiences as well as their journey of cognitive change and praxis. Stronger theory on the kind of professional learning that fosters change is critical.

- **The Role of Hip-Hop Pedagogy in Antiracist Classroom Assessment Practices**

Jade Caines Lee, Clark Atlanta Univ

The purpose of this paper is to theoretically explore how hip hop pedagogy can be utilized and implemented in K-12 classroom assessment practices. As a conceptual paper, there are four sections. The first section explores the importance of formative assessment in the PreK-12 classroom, both brick-and-mortar and virtual spaces. The second section defines culturally relevant sustaining pedagogy and highlights hip hop pedagogy as an

example. The third section details several examples of formative assessment techniques that align with the principles of hip-hop pedagogy including call and response, cyphers, and battling (verbal and kinesthetic). The paper ends with a call to action for the educational measurement community, particularly for classroom assessment researchers and practitioners.

30-Minute Break (1:35-2:05)

KEYNOTE PLENARY SESSION (2:05 p.m.-3:05 p.m.)

EXPANDING THE EVIDENCE OF LEARNING TO PROMOTE EQUITY THROUGH FORMATIVE CLASSROOM ASSESSMENT

Session Chair: Chris Gareis, William & Mary

Lorena Llosa, New York Univ

Dr. Llosa will illustrate the importance of expanding both how we elicit students' ideas and what counts as evidence of learning through formative assessment to fully recognize and support multilingual learners' participation in the science classroom.

10-Minute Break (3:05-3:15)

CONCURRENT SESSION III (3:15 p.m-4:15 p.m.)

Symposium: Learning from Resources, Using them in Practice: The Reciprocal Relationship Between Resource Development and Practical Implementation

Tara Kintz, Michigan Assessment Consortium | John Lane, Michigan Assessment Consortium | Edward Roeber, Michigan Assessment Consortium | Kristy Walters, Corunna (MI) Public Schools | Kimberly Young, Michigan Dept of Education

This symposium focuses on the relationship between research and development of learning resources, and how these resources are used by educators as they enact the formative assessment process. This symposium will focus on three different resources: 1) providing formative feedback to students, 2) student peer assessment, and 3) student self-assessment. Each presentation will describe the development of the resource and how it is being used by practitioners. Both researchers and practitioners will present. Several questions are focused on in the presentation: How do resource developers determine which learning resources are needed? How do they develop them? How do instructional leaders introduce these new resources to educators in their schools? What strategies and activities are used to engage the educators in schools in learning to use the resource contents? What is the relationship between teacher learning about content through resources and enactment of formative assessment practices in their classrooms?

Symposium: Leveraging Formative Assessment in Virginia using Just in Time Mathematics Quick Checks

Melody Bushley, VA Dept. of Education | Tina Mazzacane, VA Dept. of Education | Donna Meeks, VA Dept of Education | Angela Byrd-Wright, Hampton (VA) City Schools | Lynn Meade, Henrico County (VA) Public Schools

The Just in Time Mathematics Quick Checks were developed by a team of mathematics educators from more than 70 school divisions led by the Virginia Department of Education. Just in Time Mathematics Quick Checks are formative assessments that have been created to align to each standard and bullet in the Virginia Standards of Learning in Kindergarten through Algebra II. These resources serve the purpose of identifying and diagnosing each student's unfinished learning, regardless of the reason. By identifying and filling potential learning gaps "just in time," students will be able to learn new grade level content while strengthening skills from prior grades. Teachers from 92 school divisions also participated in professional development to learn how to incorporate these resources into their lessons. This session

will provide information on how Quick Checks support instructional planning, target specific prerequisite skills, and provide opportunities for students to explain their thinking.

Panel Presentation: Moving Towards a Model for a Balanced, Comprehensive Anti-racist Assessment System

Susan Lyons, Lyons Assessment Consulting | Sarah Jay, Boston (MA) Public Schools | Dawn Schearer-Coren, Center for Collaborative Education | Fiona Hinds, Cognia

This session is intended to highlight the successes and stumbling blocks that Boston Public Schools (BPS) has faced in moving towards a comprehensive, balanced, and anti-racist assessment system. Susan Lyons will facilitate a panel discussion among Sarah Jay, the Assessment for Learning Director at Boston Public Schools, and key assessment partners who have helped the district move towards envisioning and implementing this kind of assessment system. Sarah Jay will share the steps BPS has taken to audit its current assessment landscape and move towards a systems-thinking approach. Dawn Schearer-Cohen, a Senior Associate at the Center for Collaborative Education will discuss her work with BPS teachers in developing performance tasks that measure content standards as well as develop critical consciousness. Matt Ball, a K-12 Solutions Specialist at Cognia, will offer insight on how his team has worked with BPS to select more culturally-responsive passages for their benchmark assessments.

Individual Paper Session E: New Directions in Assessment Theory and Practice

Session Chair: Mark Wilson, Univ of California, Berkeley

- **Assessing Student Learning by Design: Principles and Practices for Teachers and School Leaders**
Steve Ferrara, Cognia | Jay McTighe, McTighe & Associates

Steve and Jay will describe and illustrate the classroom Assessment Planning Framework and its three main planning templates. The Framework is intended to help teachers plan sound assessments of learning—by design—based on a deliberate consideration of Key Questions (about targeted learning goals, assessment purposes, and audiences for the assessment information); a Framework of Assessment Methods; and Evaluation and Communication Methods. This new handbook provides a practical, proven, and principled assessment planning framework that offers a wide range of approaches to classroom assessment activities, including performance-based and process-focused assessments. The Framework examines four different types of learning goals, various purposes and audiences for assessment information, five categories of classroom assessment methods, and options for communicating actionable results. The book is based on an underlying premise—that the primary purpose of classroom assessment is to inform teaching and learning, rather than simply to assign grades.

- **Secondary Mathematics Teachers' Use of Computational Items before and during Distance Learning**
Sarah Wellberg, Univ of Colorado Boulder

Mathematics teachers typically rely upon computational, constructed response items in their summative classroom assessments, but distance learning created technological obstacles to their use because the available online assessment platforms did not easily allow teachers and students to enter mathematical symbols. This research investigates teachers' reasons for using these items before the pandemic and how they adapted this practice for distance learning. I interviewed six high school mathematics teachers, observed two teachers as they co-designed a unit test, and collected sample assessments that seven teachers had given before and during distance learning. In my analysis, I noted three primary motivations for using computational items during in-person learning. While six of the seven teachers continued to have students show their written computations on summative assessments during distance learning, only one of the three original reasons for doing so remained relevant. Implications of these findings and future directions are discussed.

- **Shifts in Classroom Assessment during the COVID-19 Pandemic**

Suzanne Shelburne, Virginia Tech Univ

This study examined the driving forces for changes in provincial large-scale assessment (LSA) programs and explored the impact of these changes on secondary teachers' summative assessment practices. Documents, interviews, and classroom summative assessment samples from provincial LSA informants and secondary teachers were used to address the research questions. The findings demonstrated that within different contexts, educational authorities depended on a variety of rationale to make the changes in provincial LSA. The changes in provincial LSAs impacted some teachers' practices of developing and marking their summative assessments. Teachers also expressed a feeling of freedom in their summative assessment practices. However, teachers expressed several challenges to change their summative assessment practices in relation to the changes in provincial LSA, such as the lack of resources and professional development, the misalignment of the curriculum competencies assessed in classroom summative assessments and those in the new provincial LSAs.

10-Minute Break (4:15-4:25)

CONCURRENT SESSION IV (4:25 p.m.-5:25 p.m.)

Symposium: Implications of Research on 21st-Century Skills for Classroom Instruction, Assessment, and Grading

Carla Evans, NCIEA | Jeri Thompson, NCIEA | W. Chris Brandt, NCIEA | Valerie Greenhill, Batelle for Kids

The purpose of this symposium is to examine the implications of 21st century skills research (e.g., complex communication, self-directed learning, collaboration, and critical thinking) on classroom instruction, assessment, and grading/reporting practices. Many have argued that 21st century skills are essential for academic and workplace success (Almlund et al., 2011; NRC, 2012; Rios et al., 2020). However, classroom educators often do not have the information needed to instruct and provide opportunities to practice applying the 21st century skills (NRC, 2011), let alone know how to assess or provide feedback on students' level of sophistication related to these competencies. To address these gaps, the presenters will share their research-based insights that synthesize findings from a series of papers written about 21st century skills. The symposia will be divided into five, 15-minute sections: three presentations, discussant remarks, and an audience engagement section. The three presentations will end with a set of recommendations for classroom practice and questions for future exploration or research.

Symposium: Using Classroom Assessment to Promote Civic Learning

Dante Cisterna-Albuquerque, ETS | Laura Hamilton, ETS | Caroline Wylie, ETS | Gregory Vafis, ETS | Lei Liu, ETS | Tamara (TJ) Heck, Michigan Dept. of Education

Civic learning takes place in a variety of contexts in and outside of school. This symposium emphasizes the role of classroom assessments to facilitate civic teaching and learning and the importance of providing evidence-based guidance to inform future research. The presentations of this symposium highlight both the importance of making civic-related knowledge, skills, and dispositions visible in multiple disciplinary contexts and the potentials to make civic learning meaningful for students. The presentations address several key questions: (1) How do teachers promote civic learning and measure students' civic competencies across the curriculum? (2) In what ways can a scenario-based civics assessment task support teaching, learning, and formative assessment? (3) How can assessment integrate civics and science in ways that promote science learning as envisioned by NGSS? Together, each presentation contributes to visualize civics-based formative and classroom assessment in ways that engage students in learning and provide actionable data to teachers.

Panel Presentation: Using Language Learning Progressions to Guide Assessment Modifications for New Speakers of English

Alison L. Bailey, Univ of California – Los Angeles | Laureen Avery, ExcEL Leadership Academy | Heather Brown, ExcEL Leadership Academy | Christine Butler, UCLA | Gavi Ziu-Pires, ExcEL Leadership Academy | Sandy Chang, ExcEL Leadership Academy

The presentation will inform participants about the work of communities of practice to build teacher expertise in the use of learning progressions to guide modifications to classroom assessment, making probes accessible to elementary-aged new speakers of English (English learners). Communities of practice comprising classroom teachers, ESL specialists, professional development specialists and language researchers were formed with support from a National Professional Development grant (USDOE). Guided by language learning progressions and theoretical underpinnings from assessment accessibility principles, culturally responsive and sustaining pedagogies, and convergent-divergent assessment, the team will report on a six-step procedure for modifying tasks and probes as a model of support for non-specialist teachers working with English learners. This will be an interactive presentation with ongoing engagement between the audience and presenters to illustrate the process of modifying classroom assessments so that student responses to probes can convey content knowledge (e.g., mathematics, ELA) at a student's current language proficiency.

Individual Paper Session F: Assessment Strategies and Tools in English and Mathematics Classrooms

Session Chair: Leslie Grant, William & Mary

- **Feedback Strategies, Learning Progressions, and Formative Assessments for Improving Pedagogy**

Ye Yuan, Univ of Georgia

The study discusses the importance of examining effective feedback strategies with learning progressions within the formative assessment literature. One weakness in past research is the lack of support for identifying zones of proximal development (ZPD; Vygotsky, 1978) that teachers can link to a range of feedback strategies to improve student learning. The study reviews the literature on the relationships among feedback strategies, learning progressions, and formative assessment in science, mathematics, and language arts. The purpose of the study is to develop and validate a conceptual framework of the key constructs and contribute to the overarching goals of (1) evaluating the framework within a middle school writing assessment context, and (2) proposing and testing a potential measurement model for identifying and improving the effectiveness of teacher feedback strategies linked to levels of student achievement.

- **Using Rubrics as an Instructional Tool for Teaching Writing to Grade 3 Female Students**

Susan Gwee, National Institute of Education, Nanyang Technological Univ | Joanne Khaw, Ministry of Education, Singapore | Fanny Chan, Independent Consultant

This study seeks to examine the relationship between the use of instructional rubrics and quality of student writing and self-efficacy of female third-grade students. The intervention for two intervention classes and one comparison class lasted three months. Rubrics and exemplars were validated by intervention group teachers and a master teacher. Intervention and comparison group teachers were observed during lessons. Student assignments and examinations were collected before and after the intervention. After the intervention, students completed a survey on self-efficacy in writing, and 12 were interviewed. The intervention classes had higher writing scores than the comparison class but differences were only significant for class assignments. Intervention group students had significantly higher writing self-efficacy scores than comparison group students. Student interview data revealed that ten out of twelve students felt that the intervention rubric improved their writing in the following areas: content, vocabulary, organization of ideas, writing conventions, and sentence fluency.

- **Making Inferences about Quantitative Understanding/Construction in a Classroom Setting**

Catherine Kaduk, North Central College

Teachers may benefit from using observations of students completing common classroom array multiplication problems. These observations support making inferences about number construction (units understanding) or making inferences about additive vs multiplicative reasoning. The analysis of video and student work from 64 protocol interviews of fourth-grade students' gestures, explanations, and written work using a coding system based on prior unit coordination studies led to the development of a teacher observational tool for this purpose. Research study findings include that gestural evidence as students find rectangle side lengths or present an explanation is informative. Also, asking students to provide a different way to solve the array problem can help determine if a student's responses are based on a memorized set of steps. Examples of classroom inference-making and related insights for classroom use are shared.

10-Minute Break (5:25-5:35)

CONCURRENT SESSION V (5:35 p.m.-6:35 p.m.)

POSTERS

- **Supporting Instruction and Student Learning through Interaction Maps**

Eric Ho, UCLA | Minjeong Jeon, Univ of California, Los Angeles

A problem of practice is that educators may not know how to identify students who require more support based on assessment data at the item-level. Another issue is that standard IRT models tend to only account for respondent and item effects and fail to account for this heterogeneity due to independence assumptions. To address these issues, we introduce a novel statistical approach that supplies an interaction map which is a window into classroom performance. An interaction map places students along with test items in a two-dimensional geometric space. The interaction map helps assess the strengths and weaknesses of students and offer more interpretative and prescriptive feedback to support their learning and progress. We apply the proposed approach to real-life assessment datasets and also present a prototype of a user-friendly web-based program that allows researchers and practitioners to upload their assessment data and create the interaction map and strength-profiles of students.

- **Automatic Story Generation for Reading Comprehension**

Seyma N. Yildirim-Erbasli, Univ of Alberta | Okan Bulut, Univ of Alberta

Reading is the key ability that students master during the first few years of their formal education and make the transition from "learning to read" to "reading to learn." Given the frequent use of reading passages to develop reading comprehension, teachers continuously look for new reading passages. The recent developments in machine learning and natural language processing allow us to generate reading passages that can mimic human-generated reading passages. Our study aimed to leverage the potential of digital reading materials to foster student reading comprehension for grades 1 to 4 by designing a language model for automatic story generation. We used a hybrid decoding model with transformers and fine-tuned the pre-trained transformer model using the children's stories, consisting of 3,700 text files. The model achieved producing fluent, coherent, grammatical, logical, and human-sounding stories. The story generation model can be a flexible tool in education and allow teachers to create authentic texts and share them with their students easily.

- **Leveraging Performance Assessment to Engage All Learners and Inform Instruction**

Kelley Aitken, Frederick County (VA) Public Schools / VaSCL | Annie Evans, Univ of Richmond

The Virginia Consortium of Learning (VaSCL) is an organization of approximately 70 school divisions across the state established to provide support and guidance in improving instruction and assessment in Virginia. Virginia has tasked school divisions to embrace a balanced assessment model and move away from traditional multiple choice standardized tests. Throughout this process, VaSCL has been a leader in providing professional development and high quality

performance assessments to their partner divisions. This session explores how VaSCL supported divisions as they transitioned from traditional multiple-choice-based only assessment towards balanced assessment models that rely on multiple assessment formats including authentic performance assessments, designed to inform instruction. Through VaSCL, divisions across the state collaborated together to develop and build balanced assessments which utilized student data to inform task development and instructional needs. Sample tasks will be showcased with examples of student work and how these assessments are used to guide instruction.

- **Designing Technology-Enhanced Science Assessment Tasks for Students to Demonstrate Knowledge-in-Use**

Brian Gane, Univ of Illinois Chicago | Samuel Arnold, Univ of Illinois Chicago | Diksha Gaur, Univ of Illinois Chicago | Daniel Damelin, The Concord Consortium

The NRC Framework and NGSS are multi-dimensional: they require students to use conceptual knowledge—disciplinary core ideas (DCI) and crosscutting concepts (CCC)—by engaging in science and engineering practices (SEP). Technology-enhanced performance assessments can enable students to demonstrate their knowledge-in-use, but their design requires coordinating measurement, cognition, and human-computer interaction perspectives. Moreover, there are particular dimensional intersections which are necessitated by specific NGSS performance expectations that are challenging to assess (e.g., SEP: Using Math & CT; DCI: Role of Water in Earth’s Surface Processes; CCC: Scale, Proportion, & Quantity in Grade 5). We use NGSS dimensional intersections as a lens to describe challenges in developing multi-dimensional, instructionally-supportive assessment tasks. Our interactive poster illustrates our retrospective analysis of this work for PE 5-ESS2-2, including early stage task designs and final versions. The poster will focus on dimensional intersections for this PE, but we are interested in discussions about generalizing to other dimensional intersections.

- **Adapting Assessments on the Fly: An Example of a Classroom Teacher Meeting the Needs of Students**

Lisa Keller, Univ of Massachusetts Amherst

During the pandemic, and with remote learning, classroom teachers are being asked to adapt their teaching practices to meet the diverse needs of their students. While remote teaching is challenging for many teachers, the challenges are especially difficult for special needs students that are not able to interact with technology in the way that their typical peers might. The purpose of this project is to highlight an experience of a speech language pathologist adapting an individualized assessment to measure a non-verbal student at home. The assessment was an expressive language assessment, which would be difficult to administer to a non-verbal student that does not have independent communication skills.

- **The Communication Conundrum: Clarifying Comparable Assessment Terminology among Teachers**

Robyn Pinilla, Southern Methodist Univ

Teachers assess students in their classroom often, but rarely share a common language about assessment. This study explores the language teachers use when discussing assessment practices to clarify their similar and dissimilar meanings when their words do and do not match. In this study, we examine how teachers describe their classroom assessment practices, what words they use when talking about the alignment of curriculum, instruction, and assessment in instructional decision making, and provide evidence of similarity in meanings behind inconsistencies in the words educators use. We inductively analyzed multiple data sources and artifacts collected through the Measuring Early Mathematical Reasoning Skills project (NSF Grant #1721100) to capture language used by our Teacher Advisory Panel of kindergarten through second-grade teachers. This in-progress research will illuminate phrasal variations with similar meanings versus assessment practices that vary in classrooms, while calling for additional research on a common language of classroom assessment.

- **Control Rater Effects to Compare Mathematics Teaching Performance**

Chunling Niu, Univ of Kentucky

Rater-mediated classroom observation protocols are increasingly being used for teaching performance assessments, which makes identifying and controlling for various rater effects a central issue to ensure the rating quality. Due to the methodological limitations of the CTT approach for rater-mediated assessments, it is imperative to examine the 16-item Mathematics Classroom Observation Protocol for Practices (MCOP2) validity and reliability using the MFRM modeling technique to implement dimensionality analysis, item-level analysis, rater effects control, and ratee and rater ability level calibration. To that end, a sample of the MCOP2 classroom observation data were analyzed under the MFRM framework,

using Facets 3.83.3. Results showed that both the MCOP2 subscales (i.e., Student Engagement & Teacher Facilitation) were valid, unidimensional, and highly reliable rater-mediated performance measures across raters, ratees, and study samples. However, rater-item bias analyses revealed a type of intra-rater inconsistency, where some raters tended to rate more severely than other raters on certain items while more leniently on some other items.

- **Analyzing Strategies for Teaching Assessment Design to Preservice Teachers**

Bryan Drost, Rocky River (OH) City Schools / John Carroll Univ

Research consistently shows that solid assessment designs lead to better student learning outcomes. The development of well-designed assessments presents a challenge to preservice teachers in their attempts to master the process and to the teacher educators who instruct them. Drost and Levine (2021 in press) examined strategies for teaching assessment design utilized by 87 professors in the United States via survey and semi-structured interview. In this interactive poster session, the presenter will share some of the strategies that were learned in this empirical study and discuss next steps for research. Analysis of the results showed that expository, collaborative, and hands-on approaches were used, with assessment approaches aligning to structured or unstructured approaches. Data also revealed that the participants tended to focus more on the vocabulary related to assessments rather than the strategies for design.

- **Resources and Support That Impact Teachers' Capacity to Conduct Data-Driven Decision-Making**

Natalie Schelling, Indiana Univ Kokomo

This poster investigates the classroom resources and sources of support that influence teachers' data-driven decision making (DDDM) practice by addressing the research questions: 1) What situational factors (i.e., resources and support) impact teachers' ability to conduct DDDM? What is the nature of this impact?; 2) How helpful are these factors in teachers' assessment and DDDM practice? and; 3) To what extent are these factors available to teachers? This study utilized an exploratory mixed methods design, ensuring that teachers' voices were represented. During focus groups, teachers discussed situational factors that impacted their DDDM practice. A quantitative survey examined the relationship between the helpfulness and availability of these factors and teachers' perception of their capacity to conduct DDDM. The poster will present implications of this research on future research and on teachers' assessment and DDDM practice.

- **The Impact of the Changes in Provincial Assessments on Teachers' Summative Assessment Practices**

Yan (Lizzie) Yan, Queen's Univ

This study examined the driving forces for changes in provincial large-scale assessment (LSA) programs and explored the impact of these changes on secondary teachers' summative assessment practices. Documents, interviews, and classroom summative assessment samples from provincial LSA informants and secondary teachers were used to address the research questions. The findings demonstrated that within different contexts, educational authorities depended on a variety of rationale to make the changes in provincial LSA. The changes in provincial LSAs impacted some teachers' practices of developing and marking their summative assessments. Teachers also expressed a feeling of freedom in their summative assessment practices. However, teachers expressed several challenges to change their summative assessment practices in relation to the changes in provincial LSA, such as the lack of resources and professional development, the misalignment of the curriculum competencies assessed in classroom summative assessments and those in the new provincial LSAs.

- **The Effects of Including Conflicts in Contextual Mathematics Assessment Items**

Madeline Schellman, Univ of Georgia | Laine Bradshaw, Univ of Georgia

In mathematics assessments, some items use real-world contexts to demonstrate ability to apply mathematical knowledge. In reviewing published assessments, we found many real-world items that do not provide a real-world reason for answering the question. This study addresses the research question: Does student performance change when conflict is added to contextual mathematics items? To empirically evaluate whether contextual items perform differently in the presence of conflict, we experimentally assessed the difference in student performance on two versions of a contextual item: one with conflict (treatment item) and one without conflict (control item). Results showing that student performance is significantly better for the treatment than control items may indicate a benefit for providing meaningful reasons to solve mathematics problems in context. Conversely, results showing that including conflict does not impact or improve student performance may indicate a benefit for omitting conflict and instead streamlining the context to reduce reading load.

- **Daily Formative Assessment Practice Effects on Student Agency and Achievement in a High-Poverty District**

Barbara Jones, WestEd | Nancy Gerzon, WestEd

Tremendous resources go into preparing for, implementing, and acting on high stakes assessment data. But are we reaping rewards from this investment in the form of increased, equitable learning opportunities and achievement? A study with the Sunnyside Unified School District (SUSD) in Tucson, AZ gives insight into the intersection of agency, formative assessment, and achievement. SUSD has engaged in a multi-year effort building the capacity of students and teachers to implement formative assessment as a daily practice of inquiry. This session examines the correlation between teachers' formative assessment implementation levels with student achievement, measuring instructional quality through observation ratings of self-assessment, peer feedback, culture, discourse, questioning strategies, and tasks that elicit evidence of learning. Findings address a vision of classroom assessment in support of student agency, equity, and achievement, and the impact of specific dimensions of formative assessment on student achievement.

- **Case Studies of Three Science Teachers' Efficacy and Assessment Practices in Manitoba High Schools**

Monsurat Raji, Univ of Ottawa

The complexities inherent in classroom assessment point towards the need for careful consideration of the educational context of teachers' practices, as well as the numerous factors influencing teachers' assessment practices. The purpose of this multiple case study research was to provide insights into three Manitoban high school science teachers' classroom assessment practices, and their perceived self-efficacy in developing and using contemporary assessments in their science classrooms. Data from one-on-one interviews with the three teachers and the assessment artifacts they shared were analyzed using qualitative content analysis. A cross-case analysis suggest that the three science teachers practiced classroom assessment for different purposes and have varied understandings of sound assessment. The three teachers' self-reported efficacy to develop assessment tools also differed. Implications of this study for science teachers' assessment practices are offered as well as some recommendations for education stakeholders and researchers.

- **Exploring Validity of Automated Essay Scoring among English Language Learners**

Yue Huang, Univ of Delaware | Joshua Wilson, Univ of Delaware

The present study examined the predictive power of automated essay scores from an automated writing evaluation (AWE) system called MI Write on both the standardized state writing performance and the language proficiency writing performance of elementary-aged English language learners (ELLs). Furthermore, we investigated whether automated scores from AWE equally predicted the state writing performance for ELLs and non-ELLs. The participants included 2832 students in Grades 3-5 and 191 writing teachers from 14 elementary schools in a mid-Atlantic school district in the US. Results from hierarchical linear models showed that automated scores from AWE predicted both ELLs' state writing test scores and ELLs' language proficiency writing test scores to similar degrees. However, automated scores from AWE better predicted non-ELLs' performance on the state writing test than ELLs.

- **An Investigation of Teachers' Perceptions of Assessment Tasks**

Megan Schmidt, Boise State Univ | Michele Carney, Boise State Univ | Angela Crawford, Boise State Univ

This presentation examines teachers' choice of mathematics assessment items when creating end-of-unit assessments within the context of a large-scale teacher-researcher partnership. To reduce the differences between approaches in work of researchers and teachers in the context of our researcher-practitioner project, the research team provided teachers with the option to select high-quality items from Smarter Balanced Assessment Consortium (SBAC) Smarter Content Explorer to assess the results of the teaching studies. However, we also wanted to honor their knowledge and expertise in developing assessments, and teachers were welcome to prepare their own items. The teachers' selection and/or creation of assessment items was analyzed to better understand the selections they made, potential reasons for these selections, and for the teacher-sourced items, to better understand the cognitive demand of the items.

- **Opportunity or Crisis: Teachers' Experiences with Classroom Assessment during the Pandemic**

Carla Kronberg, Univ of the West Indies | Jerome De Lisle, Univ of the West Indies | Tracey Lucas, Univ of the West Indies | Nicola Mark, Univ of the West Indies | Murella Sambucharan-Mohammed, Univ of the West Indies | Nalini Ramsawak-Jodha, Univ of the West Indies | Vivian Alexander, Univ of the West Indies

During the COVID-19 pandemic teachers attempted to implement assessments for, of and as learning in unplanned, imposed, and unfamiliar modalities. In exam-oriented nation states, the pandemic might have disrupted and facilitated different sets of practices, requiring further study. This qualitative case study explored K-12 teachers' classroom assessment experiences during the pandemic and its impact on teachers' assessment literacy. It unearthed beliefs about assessment opportunities and challenges in their remote learning environments. The study employs thematic analysis and constant comparison on text from on interviews and documents. Findings revealed that teachers used multiple assessment strategies. However, some teachers 'refused to budge.' Some also complained about 'external interference'. Practice was shaped by assessment literacy and beliefs, network support, and societal perceptions. This study theorizes on the relationships between assessment practices, assessment literacy and data-driven decision-making at the classroom level. It adds to the global discourse on K-12 classroom assessment at a critical time of uncertainty.

- **What's in a Name? Selected Secondary English Teachers' Experiences of Engaging in Formative Assessment**

Sarah P. Hylton, William & Mary

This presentation shares the methodology, findings, and implications of a descriptive phenomenological study that explored how secondary English teachers experience formative assessment and the meaning they ascribe to it. Grounded by a conceptual framework that highlights purpose, process, timing, and agents, this study generated data through lived experience descriptions and in-depth, semi-structured interviews. Findings reveal that participants experience formative assessment as serving multiple purposes, chiefly to inform their instruction and to determine where students are. Although they do not label it as a process, they practice it as a series of actions. For them, formative assessment is integral to instruction and often accomplished through informal formative interactions. They consider positive class culture essential and have concerns that grading, district-mandated formative assessments, and the term itself may be impediments to effective formative assessment. These findings offer support for the study's conceptual framework and have implications for policy, practice, and leadership.

DAY 2: FRIDAY, OCTOBER 22

KEYNOTE PLENARY SESSION (10:00 a.m.-11:00 a.m.)

STRENGTHENING LINKS BETWEEN CLASSROOM ASSESSMENT AND STATE SUMMATIVE ASSESSMENT IN MATHEMATICS

Gabby Cárdenas, Para Los Niños Charter Elementary School, Los Angeles | Dan Farley, Oregon Dept. of Education | Molly Faulkner-Bond, WestEd | Christine Harrison, King's College London | Caroline Wylie, ETS | Eric Crane, WestEd | Deborah Sigman, WestEd | Alison Bailey, University of California, Los Angeles

This session brings together teacher, administrator, and researcher perspectives on the disconnect between classroom assessment (interim summative, formative) and a state summative assessment in mathematics with particular attention to English learners and other underserved students.

10-Minute Break (11:00-11:10)

CONCURRENT SESSION VI (11:10 a.m.-12:10 p.m.)

Symposium: Advancing Beyond Multiple-Choice? Classroom Assessment in Secondary History Education

Stephanie van Hover, Univ of Virginia | David Hicks, Virginia Tech Univ | Suzanne Shelburne, Virginia Tech Univ | Mike Gurlea, Univ of Virginia | Gabriel Reich, Virginia Commonwealth Univ

The purpose of this session is for a group of history educators to present research that explores classroom assessment in United States and World History. The context is the Commonwealth of Virginia, where the high-stakes multiple-choice Standards of Learning examinations are being replaced by division/teacher-created assessments. This symposium will a) establish the assessment context of Virginia; b) present a series of research studies that explore classroom assessment (before/during COVID) as well as the performance assessments that teachers are enacting in their classrooms. The papers highlight the need for additional collaboration between teachers, division leaders, teacher educators, and measurement experts.

Symposium: Implementing Formative Assessment Practices: The Role of Multiple Layers of Sustained Support

Lindsay Howe, Michigan Great Lakes Virtual Academy | Nicole Kantz, Michigan Great Lakes Virtual Academy | Tara Kintz, Michigan Assessment Consortium | John Lane, Michigan Assessment Consortium | Edward Roeber, Michigan Assessment Consortium | Kimberly Young, Michigan Dept of Education

These presentations will describe how the Formative Assessment for Michigan Educators (FAME) program flourished for the past 14 years, despite changing priorities and political leadership. FAME program design evolved over time to increase teacher support structures and opportunities for teacher learning, including: Interactions with national, state, and local experts; Opportunities to learn through numerous professional learning sessions; School-level professional learning communities expected to learn about the formative assessment process over several years; Many print and video resources. Several questions frame this session: How is the formative assessment process defined and explained? How should professional learning opportunities be structured? What supports do educators need to learn to implement these practices? How has FAME promoted the use of a formative assessment process? How might a state education agency and other organizations sustain such innovative programs? How can research and development support use of a formative assessment process?

Symposium: The Ins and Outs of Classroom Assessment: Specific Examples and Applications

Carolina Lopera-Oquendo, CUNY | Jonathan Gutterman | Javier Fernández Ruiz, Universidad Autónoma de Madrid, Spain | Leire Pinedo, Univ of Deusto, Spain

Chair: Anastasiya A. Lipnevich, City University of New York, Queens College

Discussant: Jeff Smith, Univ of Otago, New Zealand

This session brings together junior and senior scholars from the United States, Spain, and New Zealand to share new findings into the complex processes and mechanisms of classroom assessment. The four presentations will discuss both the theory and areas of application, combining various methodological approaches and focusing on various aspects of assessment. The participants will cover topics related to individual differences on scoring and grading practices in pre-service teachers, role of praise on student psychosocial characteristics and achievement, design of the evaluation methods by Univ and lecturers' assessment literacy, and patterns of the self-assessment process in high-school students. Jeffrey Smith, one of the leading scholars in classroom assessment, will serve as a discussant and move the collective thinking forward.

Symposium: Application of Needs Models to Support Sociocultural Approaches to Improving Assessment Literacy

Carla Evans, NCIEA | Erika Landl, NCIEA | Jeri Thompson, NCIEA | Charlie DePascale, NCIEA

The purpose of this symposium is to explore a needs-based assessment model (Leigh, Watkins, Platt, & Kaufman, 2000) approach to identify, support, and sustain the development of K-12 educators' assessment literacy capacities in ways that are situated and differential (DeLuca et al., 2019). To do so, we will explore the assumptions underlying traditional models of professional learning and knowledge-based supports/resources provided to educators around assessment literacy. We will examine how those assumptions are potentially at odds with a sociocultural understanding of assessment literacy, as well as best practices around adult learning and professional development (Borko, 2004; Coombs et al., 2018; Koellner & Jacobs, 2014). We will draw on the needs-based assessment models to explore the importance of matching assessment literacy professional learning design to the specific and contextual needs of participants. The symposium is organized into five, 15-minute sections: three presentations, discussant remarks, and an audience engagement section.

10-Minute Break (12:10-12:20)

CONCURRENT SESSION VII (12:20 p.m.-1:20 p.m.)

Symposium: Using Technology-Enhanced Tasks to Assess Three-Dimensional Science Sense-Making

Laura Wright, Univ of Wisconsin - Madison | Heather Harkins | Linda Malkin, Univ of Wisconsin - Madison | Amelia Gotwals, Michigan State Univ

Contemporary views of science proficiency under the Next Generation Science Standards (NGSS; NGSS Lead States, 2013) call for students developing three-dimensional science abilities: understanding of disciplinary core ideas, and mastery of science and engineering practices, and crosscutting concepts. However, assessing students' three-dimensional abilities has been a challenge since the inception of NGSS (Alonzo & Ke, 2016; Pellegrino, 2012; 2013; Pellegrino et al., 2014; Songer & Ruiz Primo, 2012). Reviews of pre-NGSS assessments indicate that most tests were unidimensional, focused disciplinary core ideas, and test formats were multiple choice, limiting abilities to make inferences about other NGSS dimensions (Sawchuk, 2019). This group presentation addresses the question of how to design accessible, three-dimensional, NGSS-based assessments for classroom use. Presentations will showcase materials and provide pilot findings from a project that recently completed a suite of technology-enhanced, NGSS-based classroom assessment tools to measure middle school students' three-dimensional science abilities.

Symposium: Including Classroom Assessments as a Critical Contributor in the Coherence of an Assessment System

Christina Schneider, NWEA | Melissa Fincher, edCount, LLC | Jan Blose, Georgia Dept. of Education | Rhonda True, Nebraska Dept. of Ed | Ellen Forte, edCount, LLC

Learning progressions are descriptions of more sophisticated ways of reasoning in the content domain as students learn. Progressions and tasks work together. They serve instruction and assessment. They not only describe how students learn, optimally they are an interpretive aid for teachers in analyzing student understanding. Therefore, the process of developing tasks specifically to progressions and aligning student work to progressions requires a principled approach to assessment design. Presenters in this session overview the work of two different states to create an educational ecosystem that supports coherent curriculum, instruction, and assessment connections through principled assessment design based in learning progressions for teachers. Researchers, teachers, item writers and state policy makers collaborated to develop learning progressions in both places. Learning science literature, assessment data, national expertise, and feedback from teachers were key components of the processes. Research, policy considerations, and student work evidence for supporting teachers will be discussed.

Invited Panel Presentation: The Magic that Happens when Teachers Understand their Subject Matter and Apply Formative Assessment Strategies in their Classrooms

Heidi Andrade, Univ at Albany | Sue Brookhart, Brookhart Enterprises, LLC

The panelists will utilize an online NCME resource, Formative Assessment for Classroom Teachers (FACT), to describe the relationship between formative assessment and the regulation of learning and illustrate its use in two teachers' classrooms where formative assessment scaffolds students' self-regulation and self- and peer assessment. to support formative assessment.

Panel Presentation: Principles, Not Standards, for Classroom Assessment

Scott Marion, NCIEA | Lorrie Shepard, Univ of Colorado Boulder | Erin Furtak, Univ of Colorado Boulder | James Pellegrino, Univ of Illinois Chicago

This session highlights the importance of using criteria, principles, and approaches grounded in a sociocultural framework to design and evaluate classroom assessment activity systems that are different from the standards used to evaluate large-scale standardized tests. To be clear, we are not opposed to quality guidelines for classroom assessment. Rather, we stress that individual classroom assessments should be evaluated within the context of the larger classroom assessment activity system in terms of the ways in which the system supports deeper student learning and ambitious teaching practices. The paper and presentation offered at this session will provide specific examples of projects where these ideas are being implemented. Further, we offer recommendations for the reauthorization of ESEA to make room for such district and state curriculum/assessment innovations without trying to impose them from the top down.

30-Minute Break (1:20-1:50)

CONCURRENT SESSION VIII (1:50 p.m.-2:50p.m.)

Symposium: Exploring Reporting and Sense-Making: Teacher Supports for Scenario-Based Assessments

Caroline Wylie, ETS | Leslie Nabors Oláh, ETS | Sharon Slater, ETS | Christine Lyon, ETS

We explore the needs of teachers and opportunities to support their use of learning progression-based assessments through (1) an analysis of six teachers' understanding of learning progressions, (2) teacher interviews to understand whether and how they value process data in score reports, and (3) a theoretical investigation using a theory of action focused on developing teachers' assessment literacy to explore how interim assessment fits within a broader system of assessment literacy. We first report how teachers initially interpret and use a learning progression and the supports they

would need to use it to support classroom assessment. Then we report on teachers' perspectives on process data. Finally, we discuss implications of the theory of action, recognizing that assessments alone are insufficient to inform classroom practices. Collectively the work highlights the importance of schools' learning culture, teachers' prior knowledge and experience, and how reports can support translating assessment information into action.

Symposium: Critical and Sociocultural Approaches to Classroom Assessment in STEM Learning Environments

Erin Furtak, Univ of Colorado Boulder | Clarissa Deverel-Rico, Univ of Colorado Boulder

This group symposium features five projects that take critical and sociocultural approaches to designing and conceptualizing assessments in STEM education. The projects include empirical studies as well as conceptual pieces that illustrate the ways that culturally responsive and sustaining pedagogies and assessment can center student identities, languages, and experiences and push against the ways that classroom assessment has been historically conceptualized in education. Collectively, we ask (a) how can we design assessments around what young people can do and know? (b) how can assessments build upon young people's cultural and linguistic assets and resources? (c) how can science teachers enact and reflect upon these assessments in ways that transform students' opportunity to learn?

Panel Presentation: Redefine the Student Role in Classroom Assessment: Policies and Practices to Strengthen Learner Agency

Nancy Gerzon, WestEd | Lorrie Shepard, Univ of Colorado Boulder | Sean Ross, Arizona Dept. of Education | Larissa Peru, Sunnyside (AZ) Unified Schools | Angelica Duddleston, Sunnyside (AZ) Unified Schools | William Kotter, Sunnyside (AZ) Unified Schools | Anissa Jimenez, Sunnyside (AZ) Unified Schools

Implementing formative assessment to support key tenets of sociocultural learning requires that students, teachers and leaders establish a shared vision of how students learn. While teachers and students are primary players, these shifts require support at every level. This panel explores what state, district and school leaders and teachers in Arizona are learning as they collaborate to establish a shared vision, align policy and increase coherence to strengthen formative assessment in Arizona. Perspectives and findings will address: (1) How the state department of education has applied key learnings from formative assessment demonstration site visits to strengthen programs and policies related to classroom assessment, (2) District- and school-level approaches to creating an aligned vision of classroom assessment in support of student agency and equity, and (3) Ways that students and teacher voices can inform and strengthen policy.

Panel Presentation: Why We Must Have Culturally & Linguistically Responsive and Sustaining Classroom Assessments

Kristen Huff, Curriculum Associates | Michael Rodriguez, Univ of Minnesota | Jennifer Randall, Univ of Massachusetts | Maria Hamdani, Curriculum Associates | Mya Poe, North Eastern Univ | Billy Green, New York City Dept. of Education

As classrooms shift toward more culturally and linguistically responsive and sustaining instruction so too must assessment. Currently accepted assessment design principles must be reconsidered to better account for the disciplinary knowledge and skills students bring to classrooms that are rooted in race, ethnicity, language, and culture. To create assessments that are more culturally and linguistically responsive and sustaining, as well as anti-racist, (CLRSA) the assessment field must evolve current bias, fairness, and sensitivity guidelines. This will move us beyond token representation of culture in test items, to embody deeper aspects of culture in meaningful, authentic, and construct appropriate ways. In this session, we will focus on defining whiteness, culturally and linguistically responsive, culturally and linguistically sustaining, and anti-racist with examples. Our hope is that this is the beginning of moving us beyond token representation of culture in test items, to embody deeper aspects of culture in meaningful, authentic, and construct-appropriate ways.

5-Minute Break (2:50-2:55)

WRAP UP AND FUTURE DIRECTIONS CONVERSATION

NCME Classroom Assessment Committee

Alison Bailey, Univ of California, Los Angeles | Caroline Wylie, ETS | Mark Wilson, Univ of California, Berkeley | Neal Kingston, Univ of Kansas | Jade Caines Lee, Clark Atlanta Univ | James McMillan, Virginia Commonwealth Univ | K. Renae Pullen, Caddo Parish (LA) Public Schools | Michele Carney, Boise State Univ | Dustin Van Orman, Washington State Univ | Debbie Durrence, Gwinnett County (GA) Public Schools