A Sociocultural Approach for Building Classroom Assessment Literacy Across Multiple Contexts

Scott Marion[1], Nathan Dadey[1], Monica Ousley[2], Carla Evans[1], Kadie Wilson[3], Jeri Thompson[1], & Wendy Stewman[4]

Center for Assessment[1], Alabama Mathematics and Science Teaching Initiative[2], SAU 9 (NH) School District[3], & Polk County (FL) School District[4]

National Council on Measurement in Education Classroom Assessment Conference

Boulder, CO: September 18, 2019

Center for Assessment

A Sociocultural Approach for Building Classroom Assessment Literacy Across Multiple Contexts: Introduction

Scott Marion

National Center for the Improvement of Educational Assessment

National Council on Measurement in Education Classroom Assessment Conference

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Assessment Literacy

The knowledge and skills associated with designing, selecting, interpreting, and using high-quality assessments to improve student learning and to serve other important educational and policy purposes

Building Assessment Literacy

- Developing **assessment literacy** among educators and leaders has been an **unmet** challenge for more than 50 years

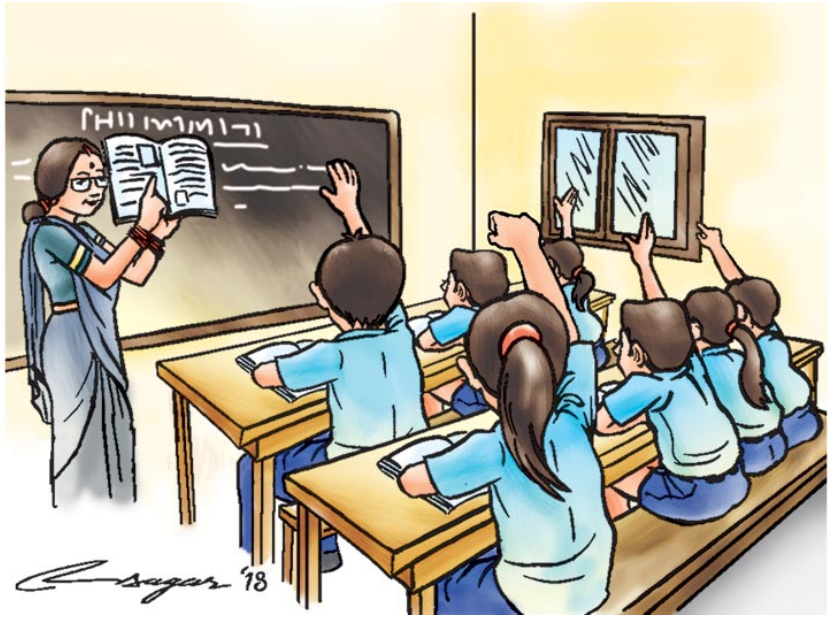
Now we are raising the stakes with complex content standards and deeper learning reforms such as the Common Core State Standards, Next Generation Science Standards, competency-based education systems and the push for balanced systems of assessment

Stuck in the Past!

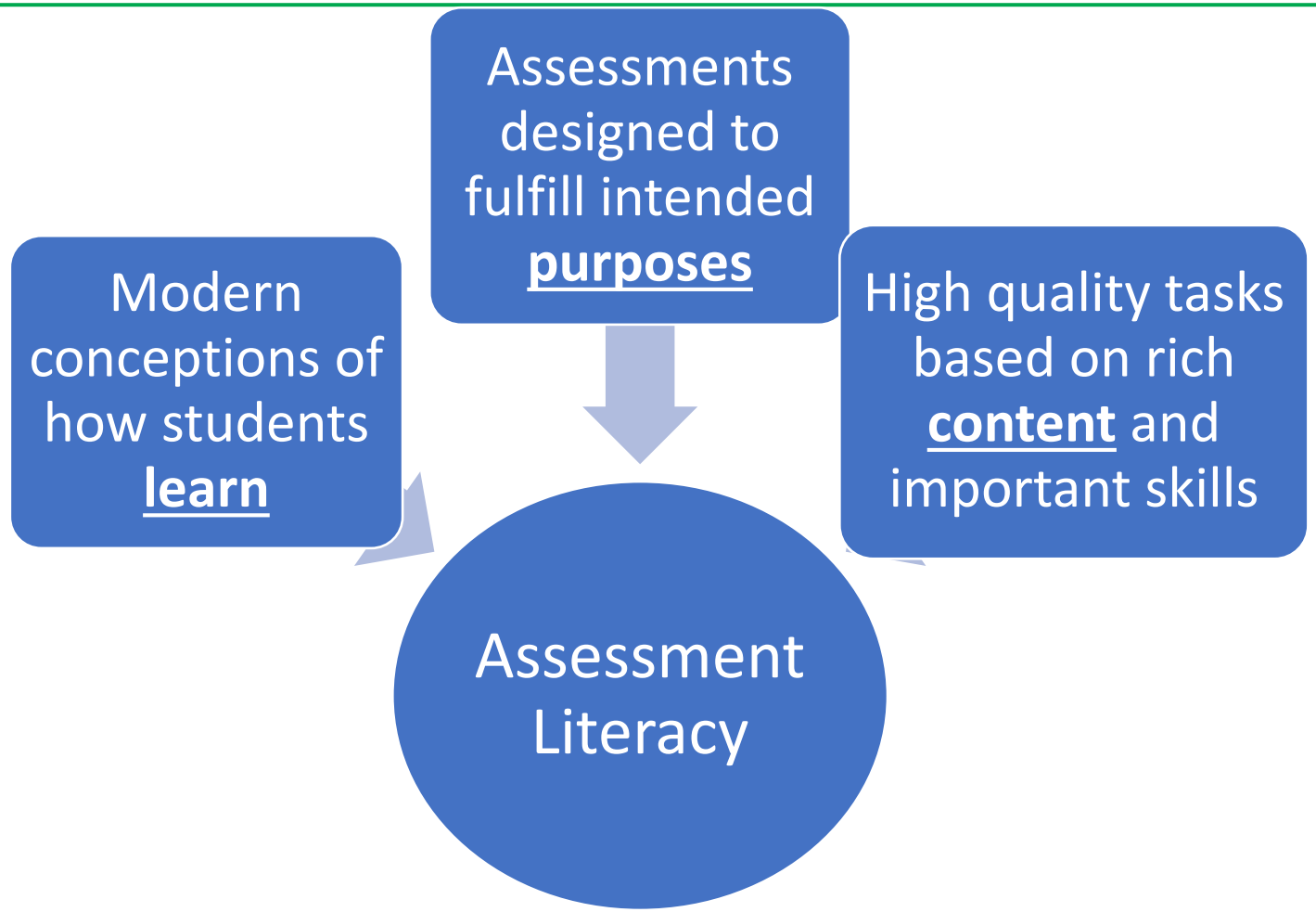
Many of the barriers to assessment literacy are due to outdated methods and practices.

Weak Classroom Assessment Training for U.S. Teachers

- Little training in classroom assessment.
- Tests and measurements courses teach reliability, validity, and test format.
- Classroom tests imitate standardized tests.
- Formal assessments are used to justify grades.
- Informal assessments, used to direct instruction, are underdeveloped.



Moving to Modern Conceptions of Assessment Literacy



We Can Learn from Research on Teaching

- Teachers are most likely to make and sustain fundamental changes in instructional (and assessment) practices if provided:
  - Time
  - Conceptual and strategic support
  - Opportunities to try new practices in the context of their own teaching

Putnam & Borko (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29, 1, 4-15.

Changing Classroom Assessment Practices

- Teachers are already swamped with a multitude of assessment-related demands, therefore:
  - Efforts to enhance assessment literacy must be woven into **professional learning opportunities for curriculum development**
  - Teachers need better access to **materials that model teaching for understanding** that rely on extended instructional activities, formative tasks, scoring rubrics, and summative assessments used to evaluate learning of competencies
  - Educators **need extended support** while attempting to use these materials to teach in new ways

From Putnam & Borko (2000)

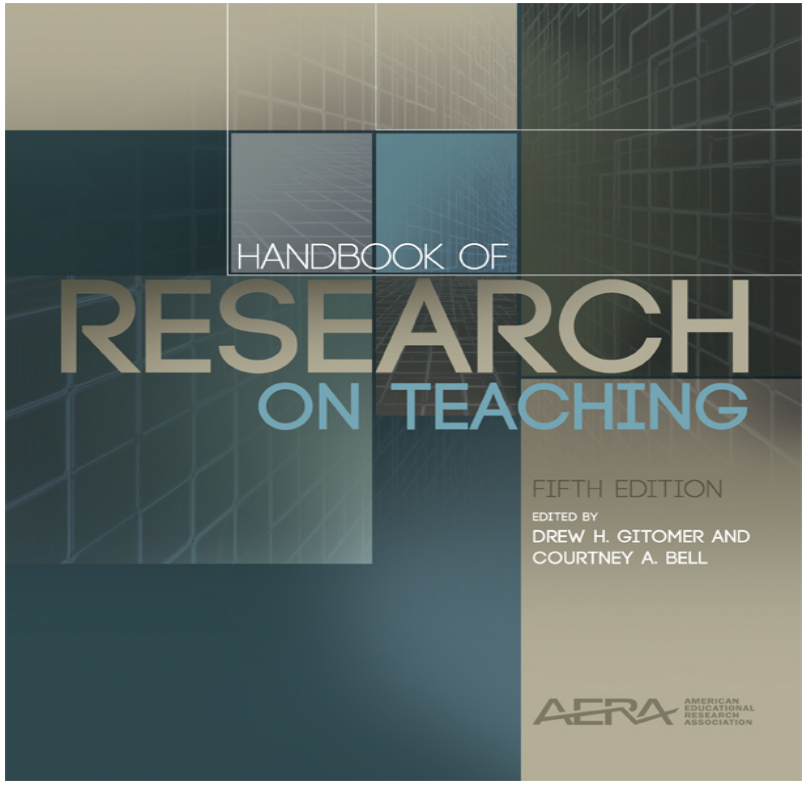
How Do We Spread the Word to the Masses?

- Building assessment literacy is challenging on many levels
- It is hard enough to support meaningful improvements in assessment literacy at the school or district level
- The challenge is magnified when trying to increase assessment literacy on a large-scale

Assessment and Teaching (2016)

Penuel & Shepard offered a classification scheme for formative assessment interventions

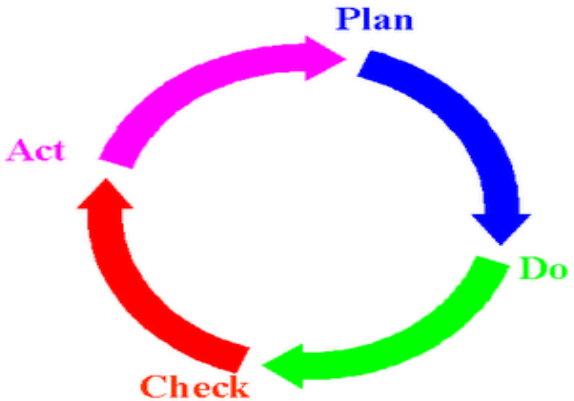
- Data-Driven Decision Making
- Strategy-Focused
- Sociocognitive
- Sociocultural



We highlight one common framework to illustrate the challenges of improving learning without a clear, research-based model of learning

Data-Driven Decision Making and Deming's Total Quality Management

Deming Wheel



- DDDM has an organizational-change *theory of action* but does not have a specific theory of learning – nor does it have research evidence of effectiveness.
- In business, continuously improving organizations identify measures of quality, search for problems, and innovate to improve.
- DDDM assumes teachers will know what to do, which is not always true in under-resourced schools (Elmore, 2003).
- DDDM invites extrinsic rewards and punishments as means to motivate students and teachers.

Stop Training the Trainers!

For far too long educational leaders and consultants have pushed a "train the trainers" approach for scaling reforms

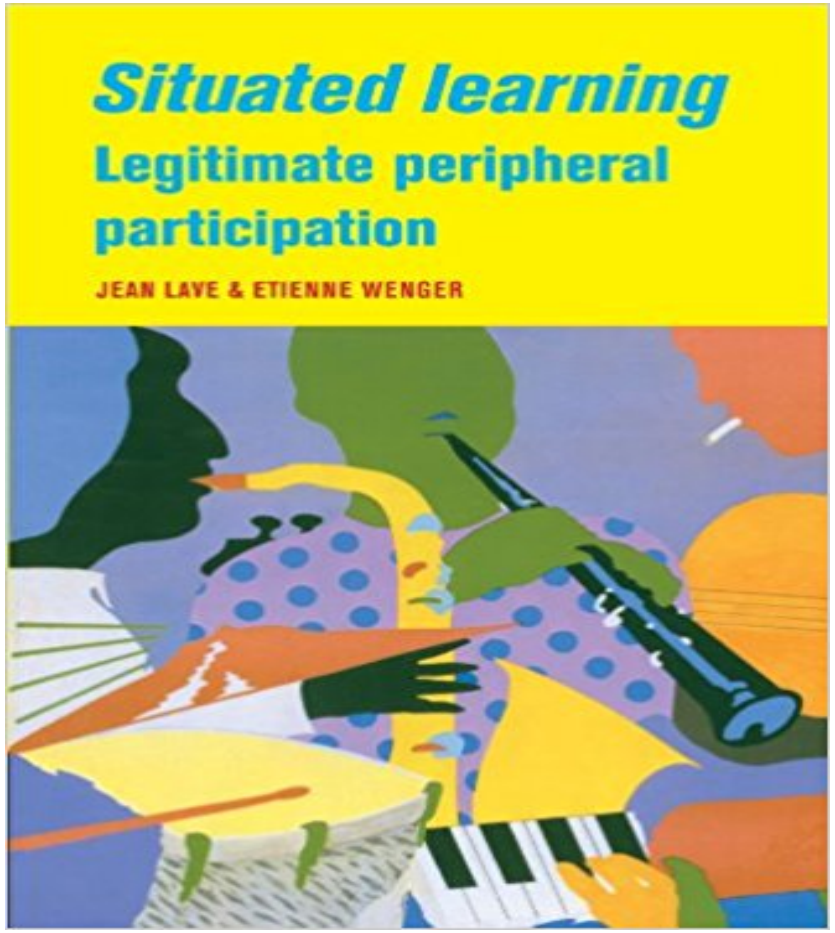
It is about as effective as the children's game of "telephone" in terms of accurately convening the original message

Why? The ones responsible for spreading the message simply do not have the expertise necessary to teach others.

Creating Expertise

- We need more than just “literacy”
- We need real expertise—perhaps not for everyone, but at least for core groups of educators and leaders
- We acknowledge that supporting improvements in assessment literacy is a challenge, so why are we raising the stakes by asking for expertise?
- We are convinced the assessment demands are so immense that there must be a substantial number of local educators with true assessment expertise
- This expertise will also support “spreading the word” to other educators

Research-Based Approaches



- We have chosen to employ a sociocultural framework for building expertise
- A deeper, **research-based approach** is based on Lave and Wenger's (1991) study of how "apprentices" become "masters"
- We've used this framework to support "cadres of experts" who then helped sustain and lead the work

Where has this been done?

- The Center for Assessment has been using this approach for creating assessment expertise for about 20 years:
  - Wyoming
  - New Hampshire
  - Rhode Island
  - Alabama
  - Pennsylvania
  - Polk County, FL

How Does It Work?

- The specific approach is tailored to each context, but the general approach involves facilitating “apprentices” becoming “masters” via the following:
  - Identifying an initial core group of potential experts
  - Providing the core group with increasingly more sophisticated assessment learning opportunities
  - Engaging the core group to co-develop resources used to support assessment literacy activities
  - Supporting the core group in leading professional learning activities for other educators
  - Relinquishing responsibility to the core group to lead assessment literacy activities
  - Identifying the next set of “apprentices” to be “masters”

Examples from the Field

- We're now going to hear three examples of this approach from different contexts:
- Supporting science content leads in creating an understanding of 3-dimensional NGSS science standards through performance task design
  - Nathan Dadey, Center for Assessment & Monica Ousley, Alabama Mathematics and Science Teachers Initiative
- Building a leadership team to support the development of a high-quality local assessment system in NH
  - Carla Evans, Center for Assessment & Kadie Wilson, SAU 9 School District
- Moving to the 2nd generation cadre of experts in Polk County, FL
  - Jeri Thompson, Center for Assessment & Wendy Stewman, Polk County School District

Supporting Alabama Regional Science Specialist in Developing Three Dimensional Science Assessment Expertise

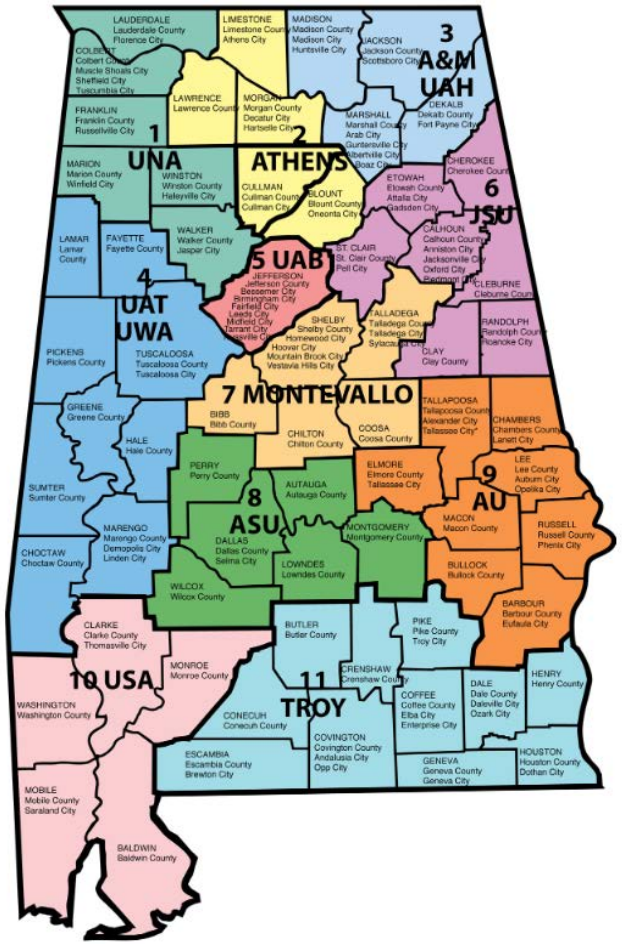
Nathan Dadey[1] & Monica Ousley[2]
[1]*The National Center for the Improvement of Educational Assessment*
[2]*Alabama Math, Science, and Technology Initiative*

September 18, 2019
NCME Classroom Assessment Conference
Boulder, CO

Context – AMSTI

Alabama Math, Science, and Technology Initiative (AMSTI):

- Is an Alabama Department of Education initiative.
- Is designed to improve K-12 STEM instruction statewide.
- Equips teachers and students through the work of 11 regional sites.
- Has been supporting the implementation of three dimensional science standards since 2015.

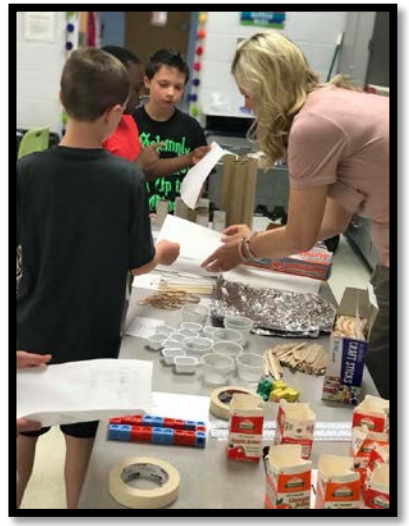


Context – AMSTI Specialists

Each regional site consists of a team of grade band specialists:

These teams:

- Work to develop their expertise.
- Consist of at least one specialist focused on each grade band (K-2, 3-5, 6-8, 9-12).
- Provide **professional development**; **materials and resources**, and **on-site support**.



Context – Supporting Standards Implementation

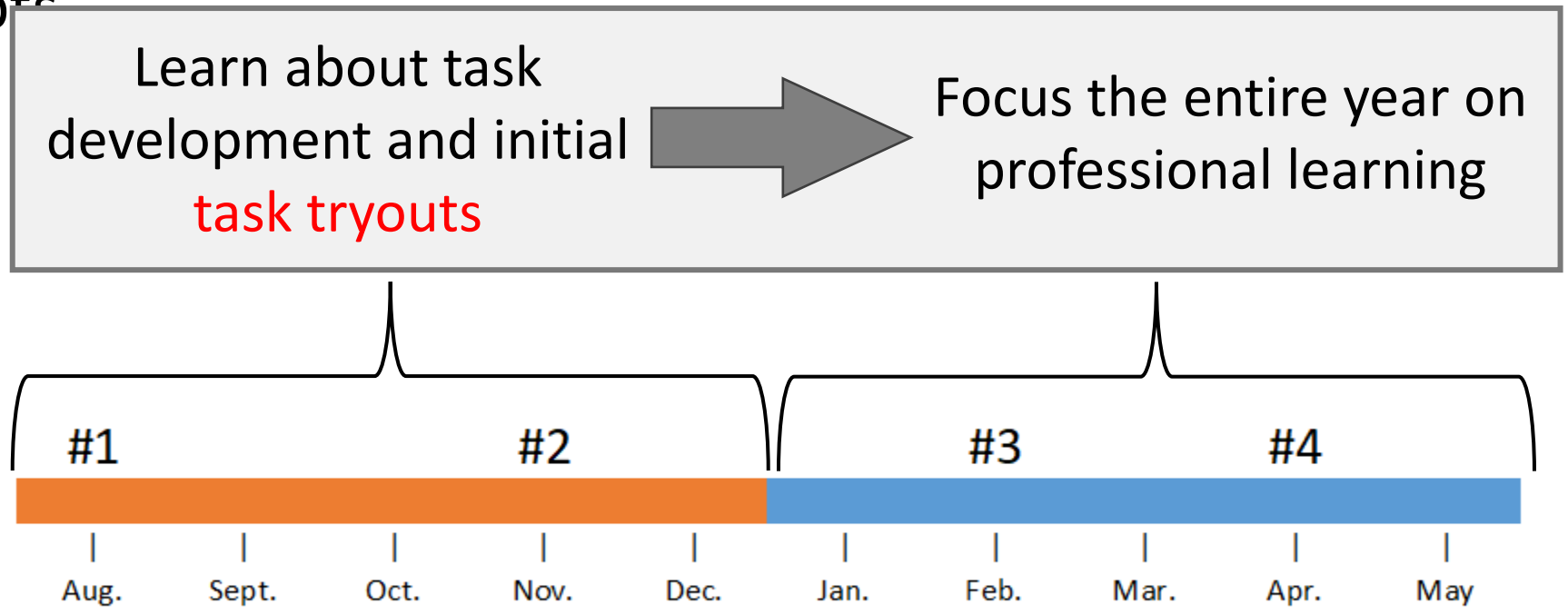
- The implementation of the three dimensional standards has coincided with a shift from a highly structured model of support to a flexible model of support.
- This shift was sparked, in part, by the state's early attempts to train specialists using the STEM teaching tools professional development module in assessment.
  → Specialists needed to build their conceptual understanding of the standards to have something to "hang" their understanding on as well as have the time and space to develop assessment expertise.

Project Overview

- **Goal**: To support specialists in their development of deep three dimensional science assessment expertise, with particular emphasis on performance assessment.
- **Approach**: provide specialists the time and space to *learn by doing* through a series of two day workshops with support provided between workshops.
- **Challenges**:
  - Complexities of Performance Assessment
  - Complexities of Three Dimensional Science Standards
  - Providing consistent support to specialists, ensuring similarity across grade-bands and regions.

Project Evolution

Year 1. Our original approach was to support specialists through the development of performance tasks using an Evidence Centered Design approach that incorporated three dimensional science assessment concepts



Year 1 – Approach

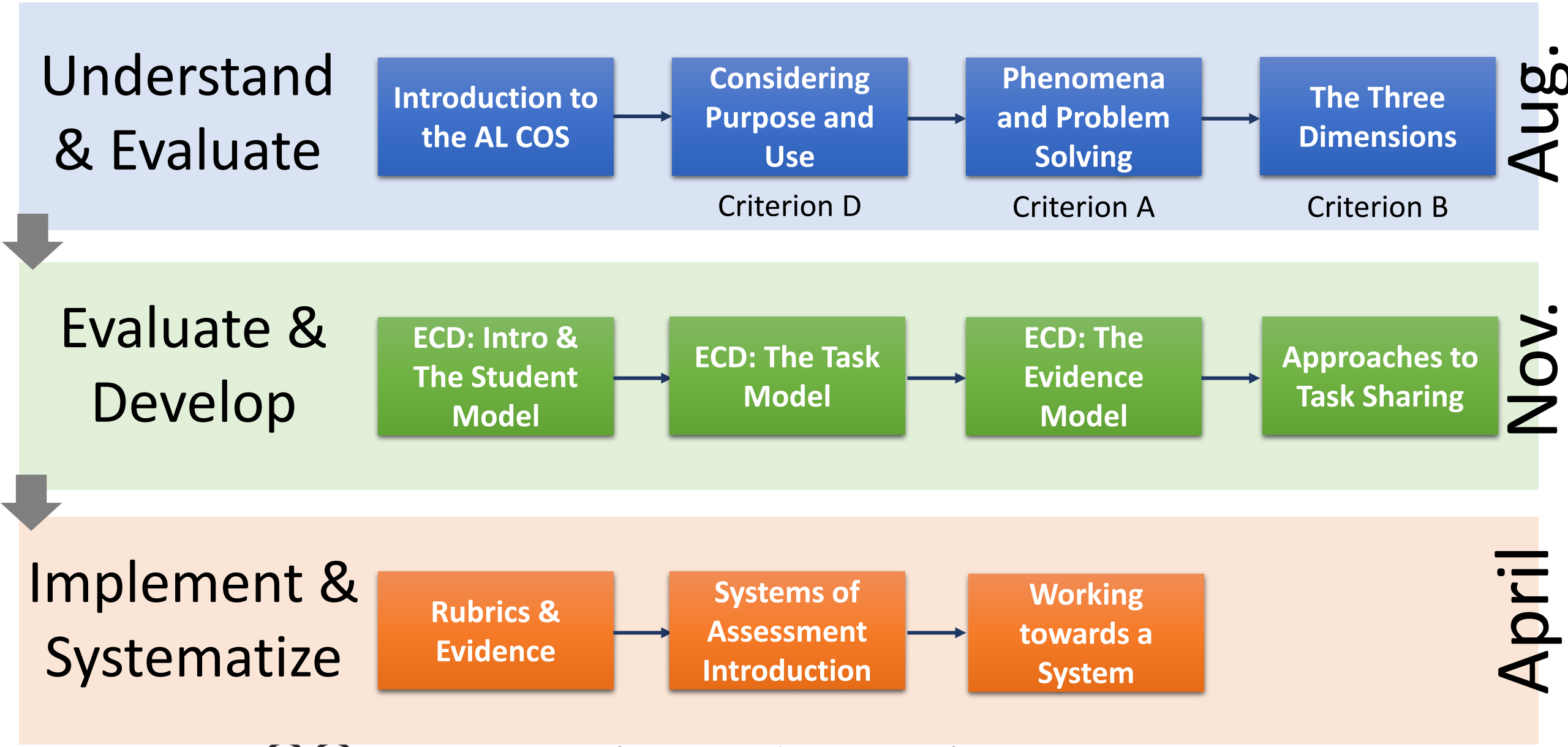
- Four workshops, two days each.
- Structured around task development that captures the conceptual assessment framework of Evidence Centered Design (ECD)
  - Student Model
  - Evidence Model
  - Task Model
- Three dimensional science content woven in and iteratively identified.

Project Evolution

Year 2. After refocusing year 1 to be extensively about professional learning through task development, year 2 was designed to provide the specialists with a flexible and customizable set of learning materials with numerous access points.

These materials were designed to follow AMSTI's vision of sustainable transformation.

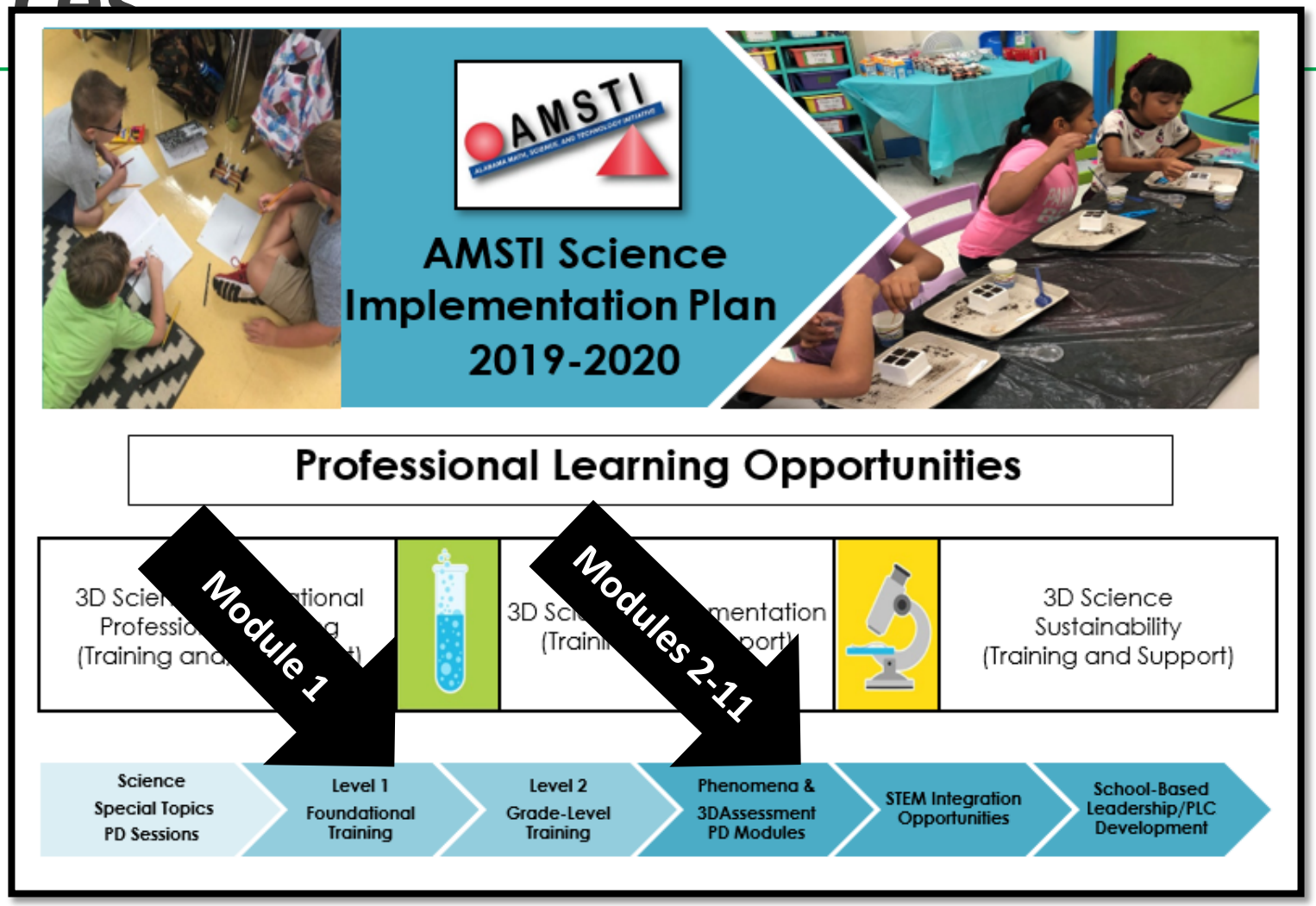
Scope & Sequence of Learning Modules



Workshop Structure

- Use of exit ticket surveys as well as add hoc-surveys to guide the workshops.
- Materials provided on and collaboration facilitated by Google drive.
- Direct presentation and group work, with a focus on group work.
- Year 1: Focused on task development
- Year 2: Focused on material development and “customization”.
- Materials situated within the ecosystem of Materials

How AMSTI will Shift Using these Resources



Lessons Learned (AMSTI)

- **Facilitate Productive Struggle.** Specialists needed to feel comfortable to express what they know and don't know, with adequate **scaffolding**.
  - Timing - Introducing things when the desire and readiness occur
  - Formative process – Meeting specialists where they are, making connections, and building on prior knowledge and skills over time
  - Tiered Support Approach – Pre-planning, feedback, grouping, new learning, practice, feedback, repeat

Lessons Learned (Center)

- **Additional Scaffold for Learning**. Provide greater structure and access points throughout the first year.
  - Ultimately, this is about finding an optimal access point.
- **Provide the Time**. Developing three dimensional science assessment requires a substantial time commitment → four two day workshops across the first year provided just enough time to develop a foundation.

Lessons Learned, Part II (Center)

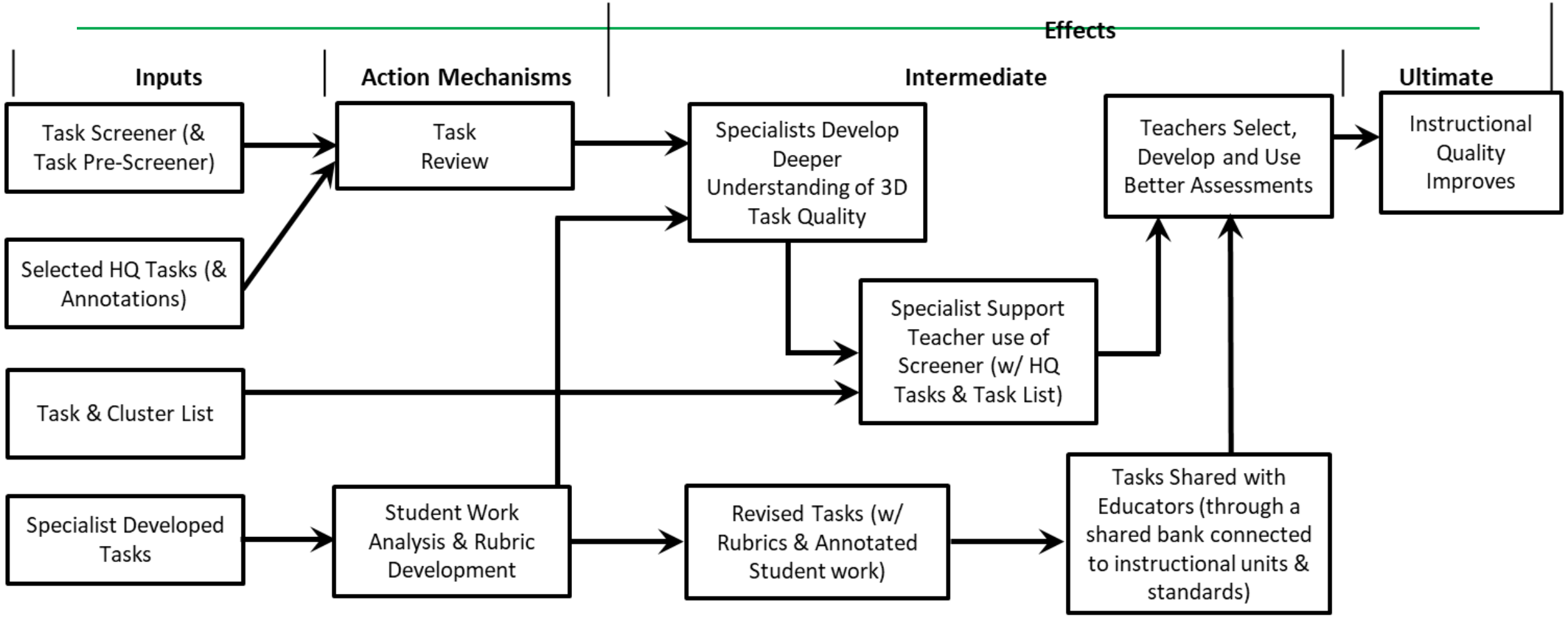
- **Focus on Small Groups**. Whole group presentation is far less effective than small group presentation → running concurrent sessions provided greater opportunity for interactions.
- **Facilitate Productive Struggle.** Specialists needed to feel comfortable to express what they know and don't know, with adequate scaffolding.

Supplemental Slides

Original High-Level Theory of Action

Specialists will become experts in three dimensional science assessment and by doing so able to support teachers and administrators and their own professional development.

Original Theory of Action (for the Program Effects)



Center for Assessment

Building a leadership team to support the development of a high-quality local assessment system in New Hampshire

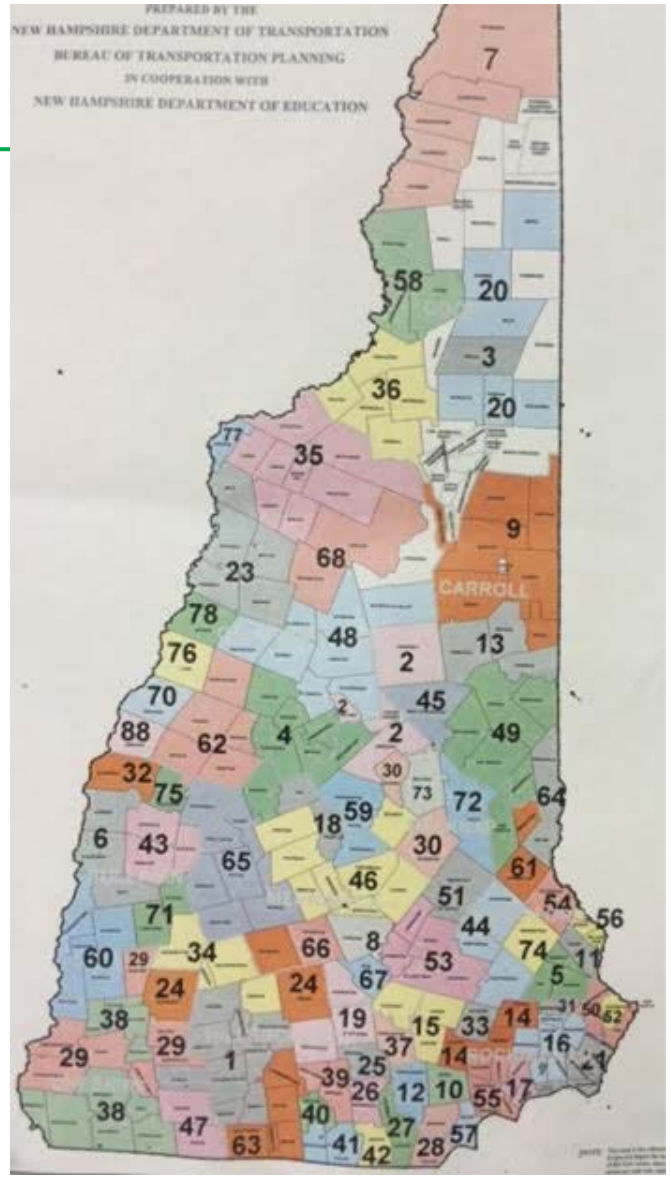
Carla Evans, *Center for Assessment*

Kadie Wilson, *SAU 9 Assistant Superintendent*

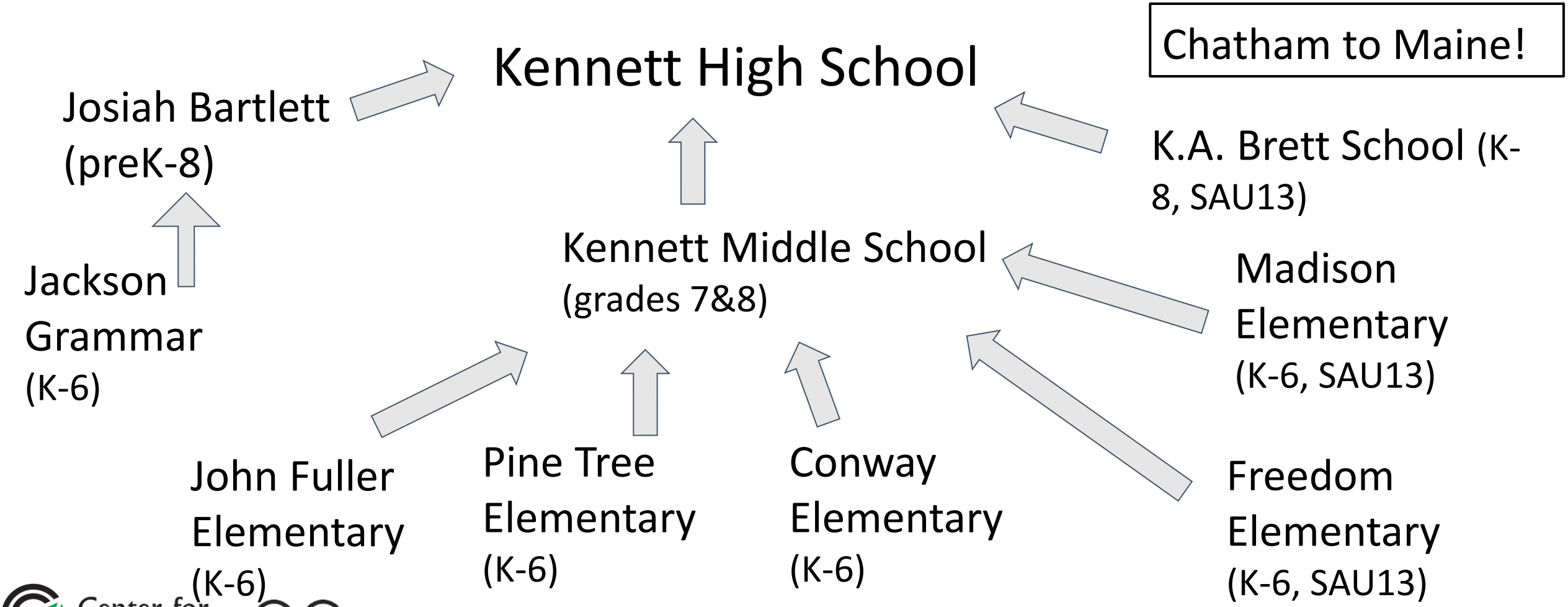
NCME Classroom Assessment Conference
Boulder, CO: September 18, 2019

Setting the Context

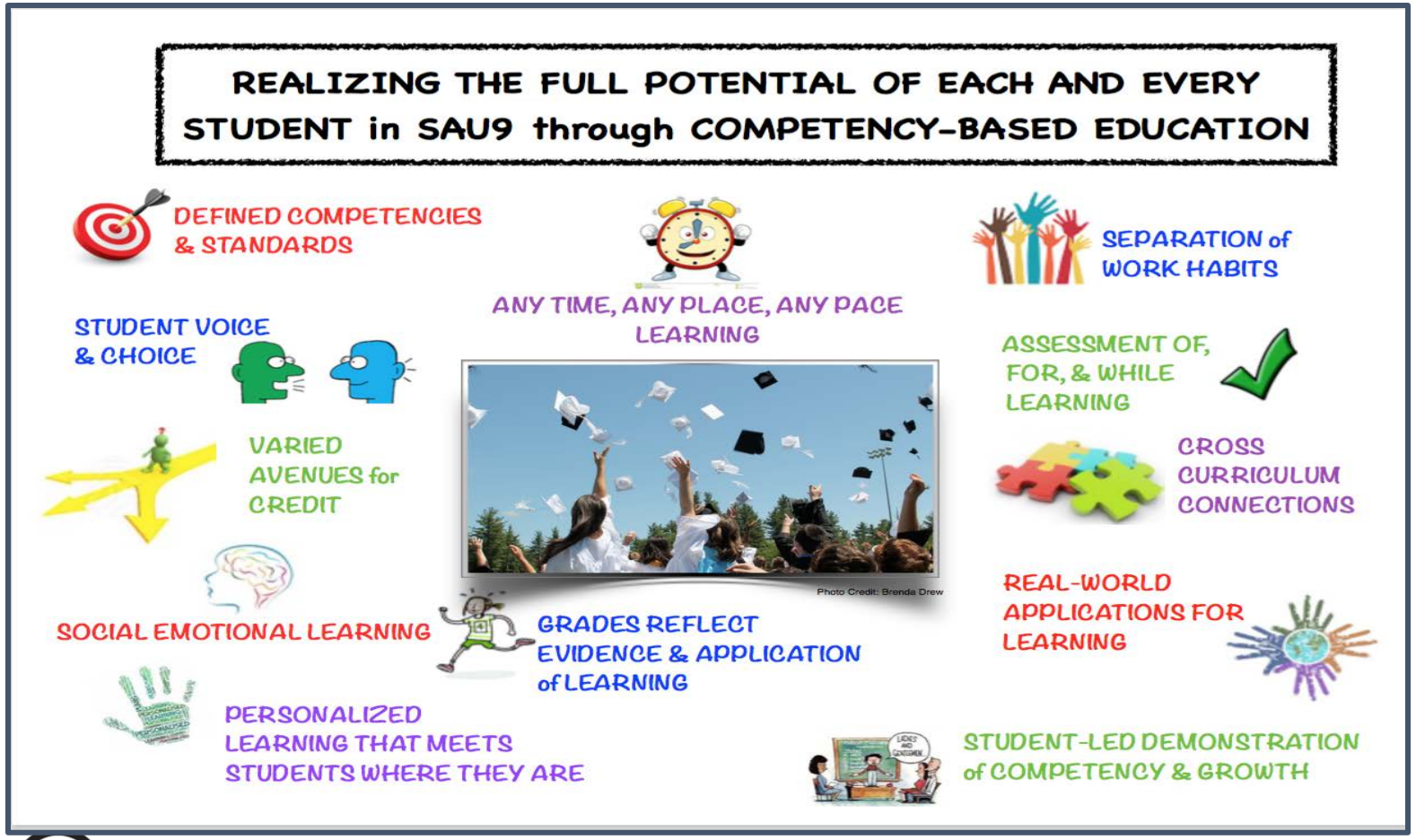
- SAU9 is a complex system located in the Mount Washington Valley of New Hampshire
- 7 towns (3 more from another SAU at KHS)
- 7 schools
- 10 school boards
- 2000 students
- over 500 staff

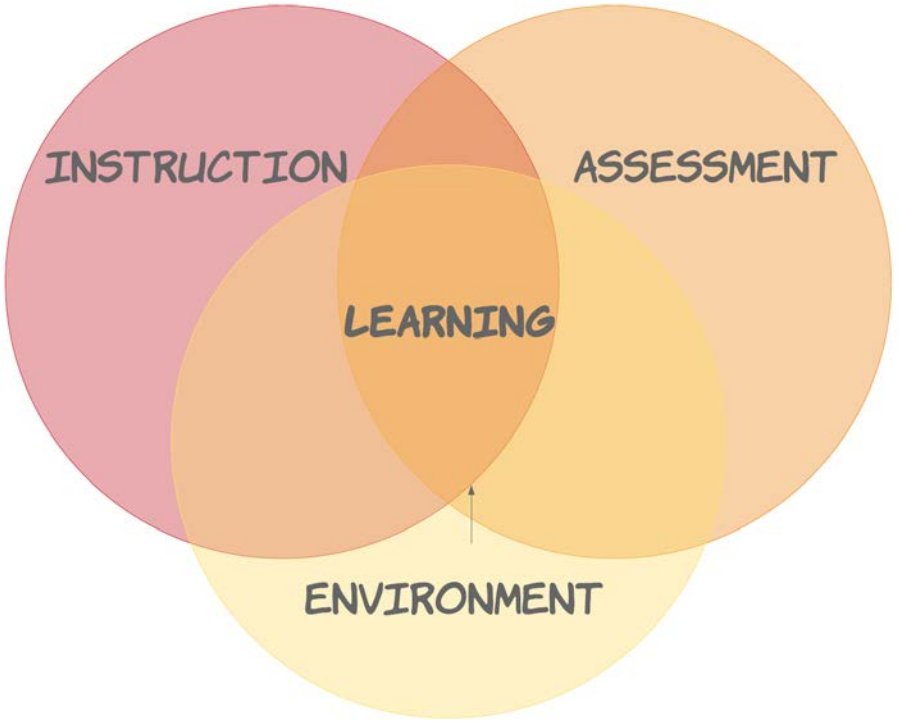


Setting the Context

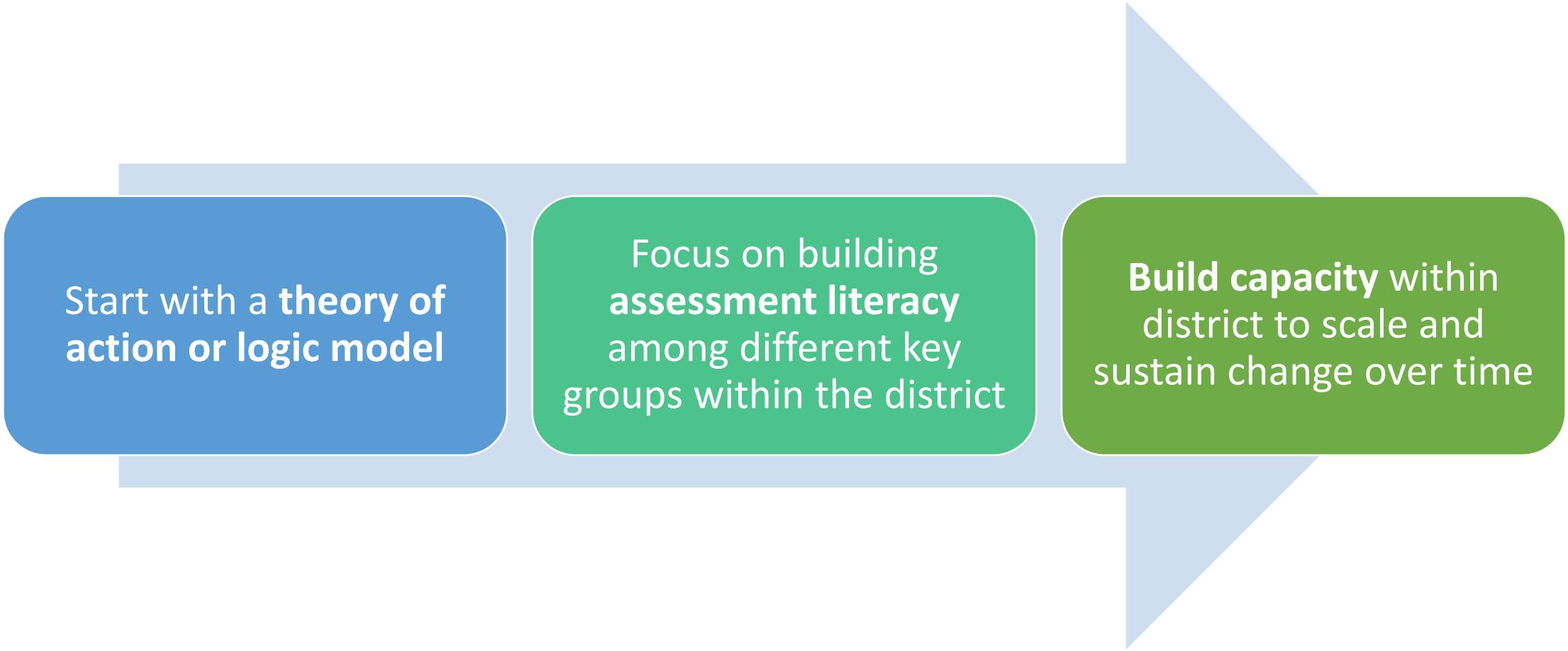


Our Why...


REALIZING THE FULL POTENTIAL OF EACH AND EVERY STUDENT in SAU9 through COMPETENCY-BASED EDUCATION
DEFINED COMPETENCIES & STANDARDS
ANY TIME, ANY PLACE, ANY PACE LEARNING
SEPARATION of WORK HABITS
STUDENT VOICE & CHOICE
ASSESSMENT OF, FOR, & WHILE LEARNING
VARIED AVENUES for CREDIT
CROSS CURRICULUM CONNECTIONS
Photo Credit: Brenda Drew
SOCIAL EMOTIONAL LEARNING
GRADES REFLECT EVIDENCE & APPLICATION of LEARNING
REAL-WORLD APPLICATIONS FOR LEARNING
PERSONALIZED LEARNING THAT MEETS STUDENTS WHERE THEY ARE
STUDENT-LED DEMONSTRATION of COMPETENCY & GROWTH


INSTRUCTION
ASSESSMENT
LEARNING
ENVIRONMENT

Our Plan in SAU 9



Simplified Theory of Action

Assessment Literacy

- Needs vary among different groups—school board members, school/district leaders, and teachers.
- Yet there are some common elements of assessment literacy that span the needs of both school/district leaders and teachers—this is where we started.

Assessment Literacy 101

Features of high-quality local assessment systems

- Discussions with school/district leaders and teachers

Assessment system audit (assessment mapping)

- Local assessment system review tool (strengths, weaknesses, gaps, and redundancies)

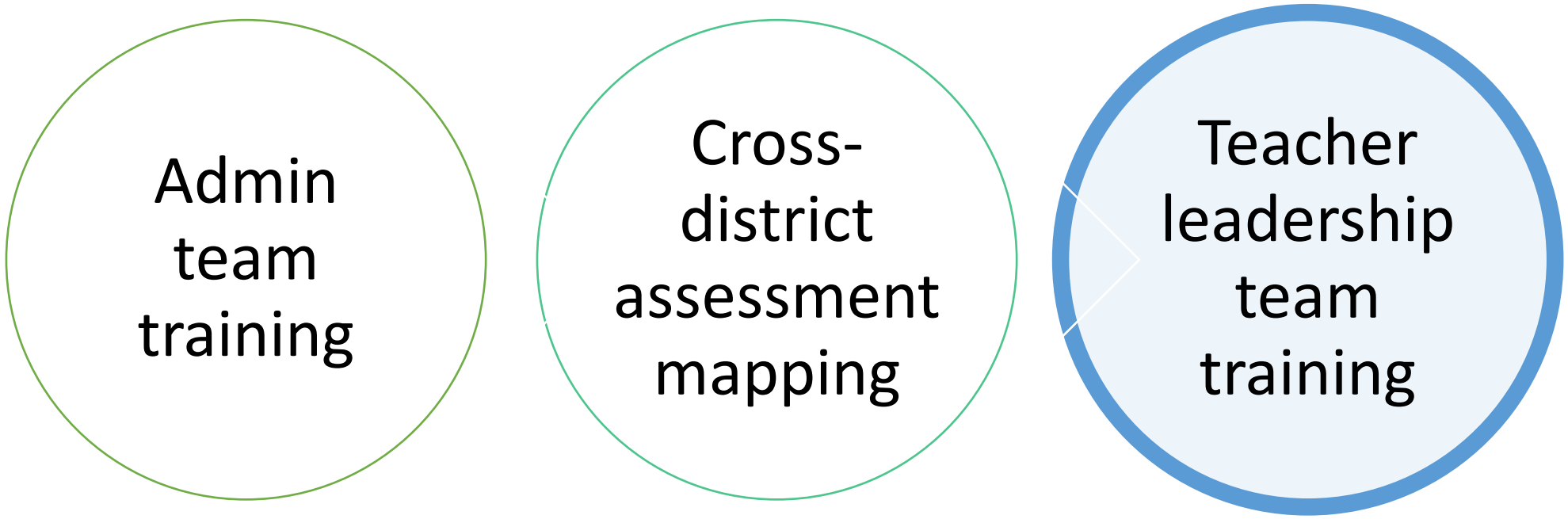
Summative assessment quality review

- Deep dive into the assessments on the assessment maps using review tool

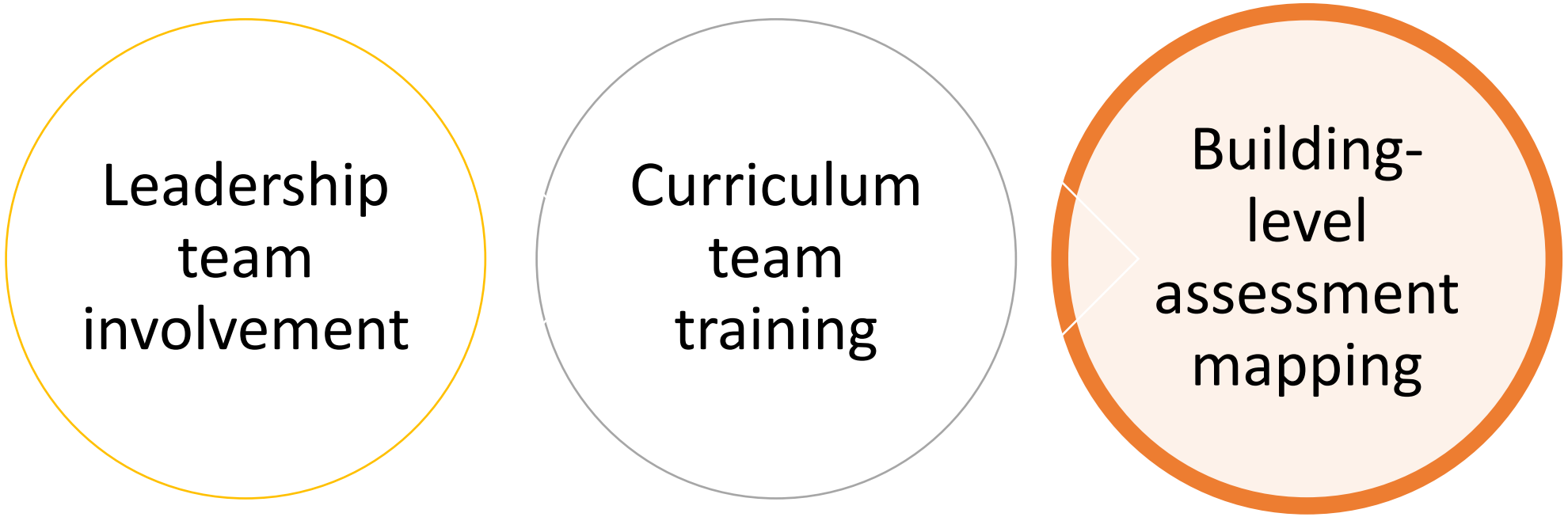
Performance assessment design, implementation and evaluation

- Using student work analysis to inform and improve instruction and improve the quality of tasks over time

Build Capacity to Scale and Sustain:
A multi-pronged approach in 2018-19



Build Capacity to Scale and Sustain:
A multi-pronged approach in 2019-20



What Has Gone Well?

- **Leadership team** seems well-prepared to lead assessment mapping and performance assessment design work.
- **Co-designed** a set of materials with the leadership team for use within district
  - Performance task template
  - Performance task validation and review tool
  - Teacher resource library with FAQs and videos
- **General support and feedback** from the school/district leaders and teachers regarding assessment mapping activities

What Has Been Challenging?

- Understanding around ***why*** this work is critical for our students
- Building understanding of the **interconnected nature** of curriculum, instruction and assessment
- Lack of a cohesive, comprehensive **current local assessment system** (the pile of bricks)
- **Consistency** in messaging from principals to staff; prior culture
- Making this work **not another "thing"**
- **Time** is always a challenge
- **Different** schools on different timelines and stages of implementation
- **Technology**

Future Plans

- **Technological solution** to performance task bank and teacher resource library
- Building-level **professional development**
- **Slowing down** and making sure assessment maps are complete in all major subject areas
- Providing opportunities to and **support leadership team** as they train their peers in performance task design, implementation and evaluation
- Work towards **second generation** leadership team
- **Staying the course**…

Questions?

Carla Evans (cevans@nciea.org)
Kadie Wilson (k_wilson@sau9.org)

Embedded Assessment Literacy in Student Achievement Objectives (SAO): Developing a Cadre of Experts

Jeri Thompson, National Center for the Improvement of Educational Assessment

Wendy Stewman, Polk County Public Schools

National Council on Measurement in Education Classroom Assessment Conference

Boulder, CO: September 18, 2019

Context

Student Achievement Objectives (SAOs) for teacher evaluation

- Embedded assessment literacy

Directions for Establishing a Learning Goal: Use the planning information to refine an description of the learning goal.

Learning Goal: a description of the specific knowledge and skills that support the enduring un that students will possess at the end of the course or grade based on course- or grade-level conten curriculum.	
Learning Goal for this SAO:	
Describe the **learning goal** for this SAO. This learning goal should clearly describe student expectations by the end of the instructional period.	

Directions for Documenting Assessments and Scoring: Use the planning information to refine and tailor the description and use of assessments you described.

Assessments and Scoring: Assessments should be of high quality and designed to best measure the knowledge and skills found in the learning goal of this SAO. The assessment should be accompanied by clear criteria or rubrics to describe what students have learned.	
Assessments for this SAO	
Describe the summative and formative **assessments** that measure students' understanding of the learning goal[1]. Include a possible prompt or prompts that align to the learning goal and the identified depth of knowledge required by the standard(s).	
Explain how student performance is defined and scored using the assessments. Describe the levels of performance and the specific criteria that will be measured through the rubric or scoring guide.	

Context

Polk County Public Schools

- Approximately 100,000 students
- Approximately 6,000 teachers (both classroom and non-classroom
- Began the use of SAOs 3 years ago as the student achievement aspect of the teacher evaluation system for non-tested subjects and grades and where no Value-Added Measure (VAM) is available
- Teachers with a VAM could opt in for using a SAO as part of their district evaluation

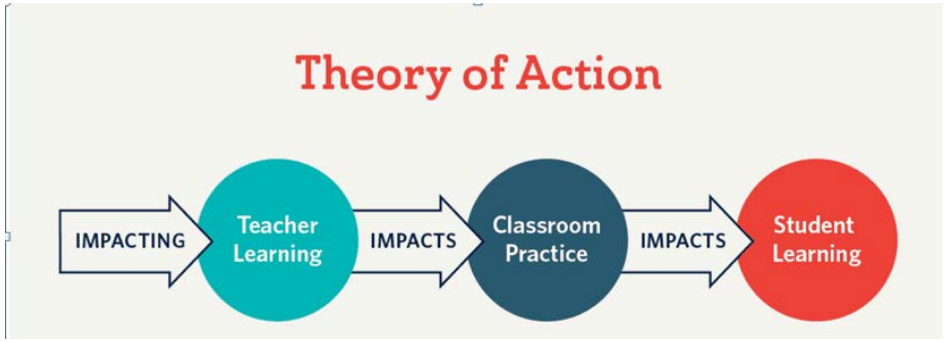
Context

Polk County Public Schools

- Multiple initiatives including:
  - Student Achievement Objectives (SAOs)
  - Marzano Instructional Framework (standards based classrooms)
    - ✓Learning Targets
    - ✓Success Criteria
    - ✓Aligned tasks
    - ✓Student Teaming
  - High quality PLCs (Professional Learning Centers)

Theory of Action

- **If** Polk County School District teachers and administrators receive high quality professional learning on designing and implementing SAOs and on how to inform and support their colleagues on SAO design and implementation…
- **then** the implementation of SAOs by teachers will be **high quality** and **student learning will improve**.



Goals for utilizing a Cadre of Experts

Build deep understanding of instructional or program content, selecting and/or creating high quality assessments and rubrics or scoring criteria

Enable deeper understanding of using data to drive instructional decision-making and to demonstrate deeper understanding of the knowledge and skills required from the content standards

Background

Sociocultural framework for building expertise – **BY DESIGN!!**

- A deeper, **research-based approach** is based on Lave and Wenger's (1991) study of how "apprentices" become "masters"

Year 1 –

- **Cadre of Experts Cohort 1-Classroom Teachers; approximately 40 classroom teachers**
- Cadre of Experts Cohort 1-Building Level Administrators; approximately 40 administrators

Attended 6 face-to-face meetings and 4 Webex meetings in order to deepen their knowledge of SAOs, including the deepening of assessment literacy

Responsibilities:

- Implement an SAO in the classroom
- Voluntarily share SAO information in their school
- Co-facilitate evening informational sessions for teachers across the district

Background

<u>Year 2 –</u>

Cadre of Experts Cohort 1-Classroom Teachers continuation

- Cadre of Experts Cohort 1-Buildiung Level Administrators continuation
- Cadre of Experts Cohort 2-Classroom Teachers
- Cadre of Experts Cohort 2-Building Level Administrators
- Cadre of Experts Cohort 1-Non-classroom Teachers

Cohort 1 meetings focused on deepening work on assessment literacy and teacher leadership by attending 3 face-to-face meetings

Responsibilities:

- Implement SAOs in the classroom
- <u>Voluntarily</u> share SAO information in their school
- Facilitate informational sessions at their school and across the district at the beginning of the year, middle of the year, and the end of the year

Background

Year 3 –

Cadre of Experts Cohort 1-Classroom Teachers continuation

Cadre of Experts Cohort 2-Classroom Teachers continuation

Cadre of Experts Cohort 1-Non-classroom Teachers

Cadre of Experts Cohort 2-Building Level Administrators-continuation

- Cohort participants applied for positions of facilitating their own cadres; occurred summer 2019
- Continued support provided in the form of 3 face-to-face meeting during the year

Benefits of using the Cadre of Experts model

- Critical for deeper understanding
- Ensure confidence for cadre members to facilitate their own cadres
- Creates a culture of engagement rather than compliance
  - Planned and purposeful learning sessions over the course of multiple years from program expert with ongoing feedback and support
  - Built a foundation of knowledge over time allowing for deep understanding
  - Continued, multi-tiered support throughout every level of implementation
  - Allowed for collaboration with peers/facilitators
  - Increased assessment literacy through application in every phase
  - Active engagement and problem-solving during implementation
  - Specialized roles based on their strengths and interest (auditors, delivery of PD, Cadre Leaders) and paired cadre members
  - Gradual release of ownership

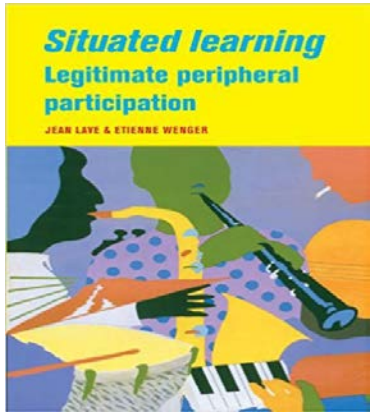
Results of using the Cadre of Experts model

- All teachers and administrators have been trained in understanding, developing, and implementing SAOs
  - Teacher cadre members facilitating learning at their schools and in evening sessions
  - Administrator cadre members facilitating learning for other administrators
- There are 10 second generation cadres currently in session; 2 SAO cadre experts facilitate the cadres in a team approach
- Other cadre experts review and annotate SAOs to provide feedback for improvement

Results of using the Cadre of Experts model

We have conducted an audit of SAOs in the district and based on the audit, we are beginning work on training teachers and administrators on improving the quality of the SAOs.

We believe that we were able to begin this work in Year 3 due to the use of this sociocultural framework for building expertise!



Continuation and Next Steps

Continuing to improve the quality of SAO learning goals, use of data, and assessment literacy.

Polk County Public Schools continues to use SAOs and Marzano's Instructional Framework to deepen assessment literacy.

The use of the Cadre of Experts model will serve them well to move this good work forward!

Questions, Thoughts, Wonders?

Center for Assessment

A Sociocultural Approach for Building Classroom Assessment Literacy Across Multiple Contexts: Discussion

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Panel Discussion

- We noted the general approach of moving from “apprentice” to “master” includes:
  - Identifying an initial core group of potential experts
  - Providing the core group with increasingly more sophisticated assessment learning opportunities
  - Engaging the core group to co-develop resources used to support assessment literacy activities
  - Supporting the core group in leading professional learning activities for other educators
  - Relinquishing responsibility to the core group to lead assessment literacy activities
  - Identifying the next set of “apprentices” to be “masters”
- In your experience and in your contexts, what have been the struggles related to the above and how have your tried surmounting them?

Scale????

Given the massive needs for improving assessment literacy, how can we take what we're learning to scale?

What are your questions and comments