Welcome!

Please take the Zoom poll while we wait for the webinar to begin.

Question: What role do you play in student learning?

Implementing competency-based education strategies: From research to practice

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REL Midwest

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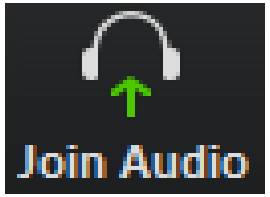
IES Institute of Education Sciences

Using the Zoom platform



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Click on the Chat box to introduce yourself, ask the presenters questions, or let us know about any technical issues.

We have live closed captioning available during the webinar—to see the captions, click on Closed Caption.

Join our live Twitter chat

- Use the Zoom Chat box to ask the presenters questions OR
- Tweet your questions to the REL Midwest Twitter account using the hashtag **#competencybased**

Meet our presenters

Susan Burkhauser, PhD
Researcher, REL Midwest

Kristina Zeiser, PhD
Senior Researcher, American Institutes for Research

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Agenda

Welcome and overview

Looking under the hood of competency-based education

School-level perspective on implementing competency-based instructional strategies

State-level perspective on supporting competency-based education in alternative and online learning programs

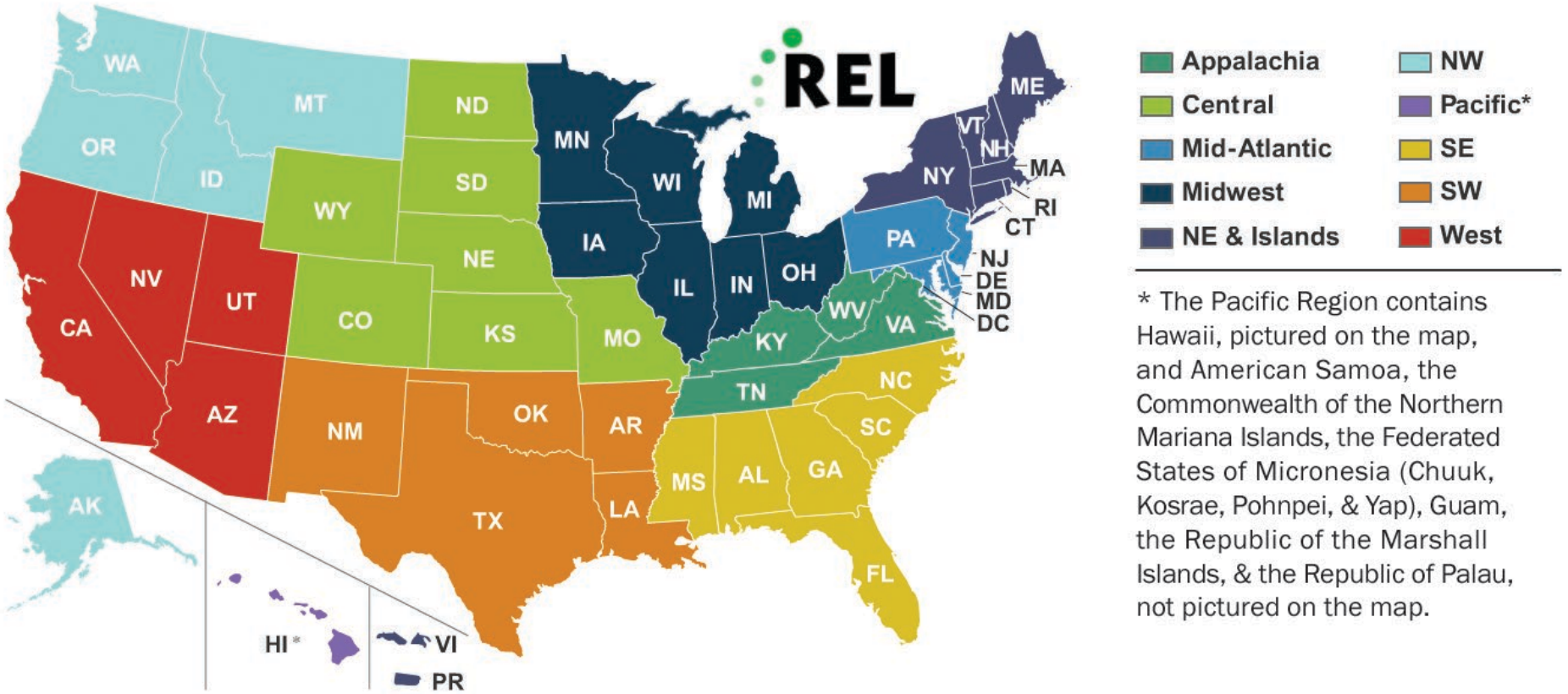
Let’s find out who is attending today

Results: What role do you play in student learning?

Welcome and overview

Susan Burkhauser, PhD
Researcher, REL Midwest

Regional educational laboratories



The RELs are funded by the U.S. Department of Education's Institute of Education Sciences (IES).

How does REL Midwest do this work?

REL Midwest conducts our work through collaborative research partnerships with stakeholders in seven states.

To address the priorities and interests of these states, REL Midwest supports several research alliances as well as emergent partnerships.

Types of support that REL Midwest offers

- **Applied research studies** that address partnerships' research questions
- **Events** that support the dissemination and understanding of existing research
- **Workshops** that support the use of data and research
- **Coaching** that supports the use of data and research
- **Technical support** such as survey, interview, or observation protocol development; literature reviews; or tool development.
- **Reviews of studies and interventions** to determine level of evidence to support ESSA implementation
- **Ask A REL** annotated bibliographies produced in response to stakeholder questions

Midwest Career Readiness Research Alliance (MCRRA) and competency-based education (CBE)

- Focus on improving college and career readiness in Minnesota using research and data
- Provides coaching and training to Minnesota educators interested in implementing CBE practices
- Established a networked improvement community of Minnesota Alternative Learning Centers to implement CBE strategies

Let’s find out who is attending today

How well do you understand competency-based education?

- This is the first I am hearing about it.
- I know a little about it.
- I have a good understanding.
- I have extensive experience and expertise.

Looking under the hood of competency-based education

Kristina Zeiser, PhD
Senior Researcher

May 6, 2020

CBE360
Gathering perspectives · gauging progress · guiding improvement

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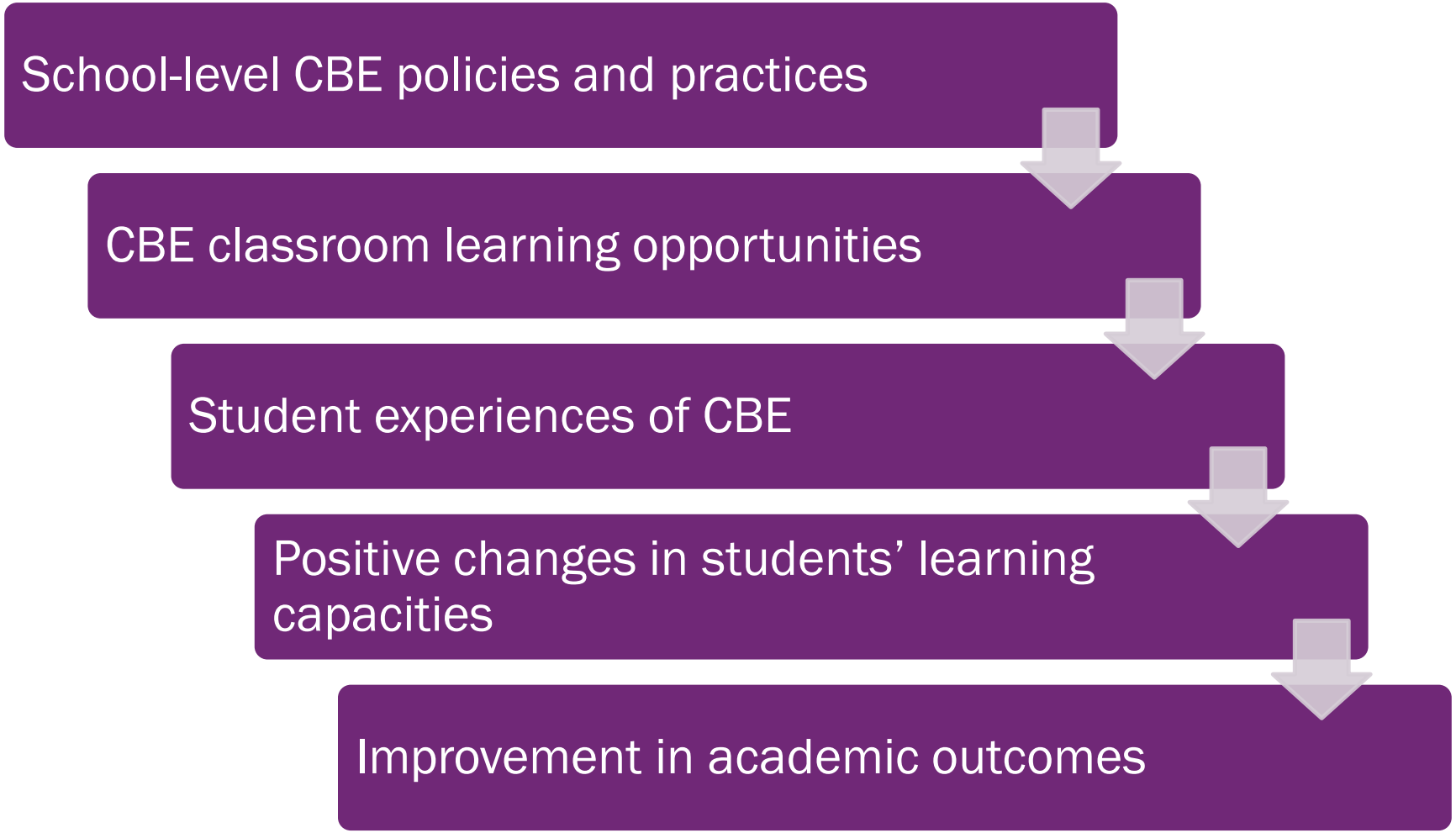
What do we really mean by CBE?

1. Learning targets	Are explicit, shared, and rigorous.
2. Measurement of learning	Is based on mastery, not participation, effort, or time.
3. Instructional approaches and supports	Are individualized, relevant, varied, and offer students independence and responsibility.
4. Assessment of learning	Offers students flexibility and choice in showing what they know.
5. Pacing and progression	Give students flexibility and require demonstrated mastery to advance.
6. When and where learning takes place	Lets students learn and earn credit for activities that take place outside the school building and school day.

What was our theory?



Study of CBE: Overview

- Funded by the Nellie Mae Education Foundation
- Selected "CBE" and comparison ("non-CBE") high schools across three states with statewide CBE initiatives
  - CBE schools were identified by state and local administrators
  - Selected CBE schools must have implemented a CBE model for at least two years
- Focused on the experiences and outcomes of grade 9 students experiencing CBE for the first time

Research questions

1. How do CBE and comparison schools differ in terms of school policies and teacher practices?
2. How do students experience CBE in the classroom?
3. What is the relationship between students' CBE experiences and their learning capacities?

Data collection

- Teacher survey (spring): 10 CBE and 8 non-CBE schools
  - Explored CBE practices
- Student survey (fall and spring): 4 CBE and 4 non-CBE schools
  - Grade 9 students' experiences with CBE in mathematics and English language arts (ELA) classrooms (spring only)
  - Measured changes in students' learning capacities from fall to spring during their grade 9 year
- Student-level administrative data
  - Controlled for demographic characteristics and prior achievement

Students' learning capacities

- Academic mindsets
  - Intrinsic motivation
  - Sense of belonging
  - Locus of control
  - Implicit theories of learning
  - Future planning
  - Future educational expectations
  - Academic self-efficacy (in mathematics and ELA)
  - Utility motivation (in mathematics and ELA)
- Self-regulated learning skills
- Academic behavior

Students' learning capacities

- Academic mindsets
- Self-regulated learning skills
  - Self-management
  - Monitoring of understanding
  - Cognitive control
- Academic behavior
  - Preparation and organization
  - Engagement (in mathematics and ELA)

Research questions

1. How do CBE and comparison schools differ in terms of school policies and teacher practices?
2. How do students experience CBE in the classroom?
3. What is the relationship between students' CBE experiences and their learning capacities?

How did CBE and comparison schools differ in terms of school policies and teacher practices?

- Teachers in CBE settings were more likely to report implementing CBE policies and practices
  - Requiring students to demonstrate mastery to earn course credit
  - Greater flexibility in retaking assessments and demonstrating competency in alternative ways
  - Greater classroom pacing flexibility for students
  - Greater use of technology
  - Individual meetings with students to discuss their progress
  - Personalized learning plans for all students
  - Greater student input with instructional decision making

Teachers in non-CBE settings *also* reported implementing CBE policies and practices

- Students take primary responsibility for keeping track of their own learning and progress
- Teachers measure mastery of learning targets
- Teachers meet with students individually or in small groups
- Teachers offer varied and flexible instructional practices
- Teachers allow students to retake summative assessments
- *Overall*, variation in teacher practices within schools ≥ variation across schools

How did student reports of CBE experiences differ between CBE and non-CBE schools?

- Students in CBE schools *were not* more likely to report meaningful differences in their experiences in most areas when compared with students in non-CBE schools
- Students in CBE schools *were* more likely to report
  - Having personalized learning plans
  - Meeting with adults regularly to discuss their learning
- Students reported different types of experiences in their mathematics and ELA classrooms within the same school

CBE experiences and learning capacities

- Relationships between CBE experiences and learning capacities examined regardless of school classification
- Not all CBE experiences were related to learning capacities
- Several trends were revealed

Clear learning targets

- Clear learning targets were related to positive changes in the greatest number of learning capacities
  - Intrinsic motivation
  - Utility motivation
  - Locus of control
  - Self-management
  - Preparation and organization
  - Engagement

Intrinsic motivation

- Several CBE experiences predicted positive changes in students' intrinsic motivation
  - Clear learning targets
  - Expectation that students must demonstrate mastery to earn credit
  - Flexible pacing (mathematics only)
  - Use of nontraditional assessments (mathematics only)
  - Allowing credit for activities outside of school
  - Use of a variety of instructional practices

Some relationships were specific to experiences in mathematics

- Academic self-efficacy in mathematics (but not ELA) was related to
  - Expectation that students must demonstrate mastery to earn credit
  - Flexible pacing
  - Allowing students to retake summative assessments
  - Variety of instructional practices

What were our takeaways?

- Exposure to CBE practices shows promise for benefiting students.
- Using the CBE label is not enough to ensure that students will be exposed to the full range of CBE practices.
- Consistent implementation at the classroom level is the key to positive outcomes!

Reactions to study findings

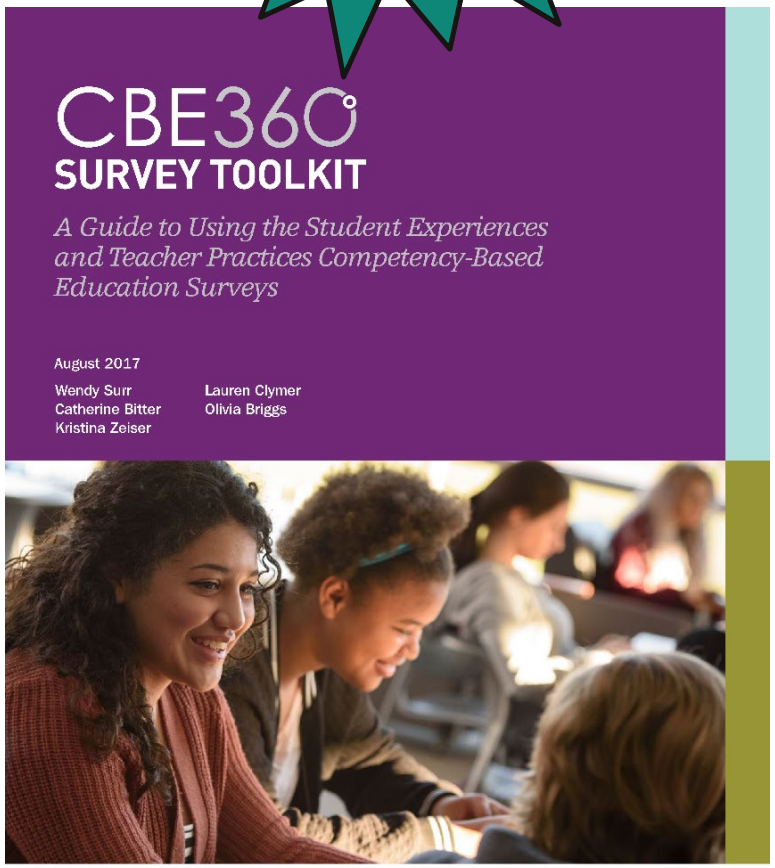
Do these findings surprise you?

- Yes, all of them.
- Some of them.
- No, none of them.

CBE360

- CBE survey user guide
- Toolkit checklist
- Teacher and student CBE surveys
- Surveys construct map
- Consent guidance and samples
- Survey administration instructions
- Online survey template
- Technical appendix

FREE!



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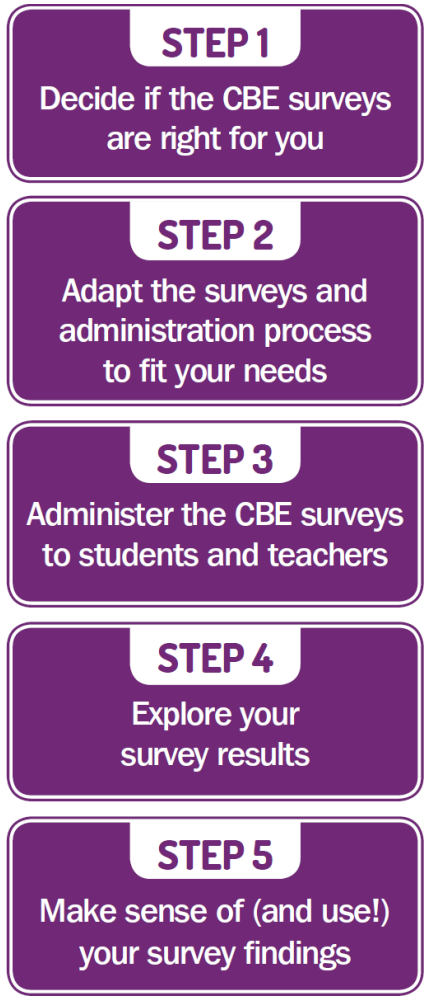
CBE360

The CBE survey user guide is organized into five key steps.



Thank you!

Kristina Zeiser, PhD
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https://www.air.org/resource/cbe-360-survey-toolkit

School-level perspective on implementing competency-based instructional strategies

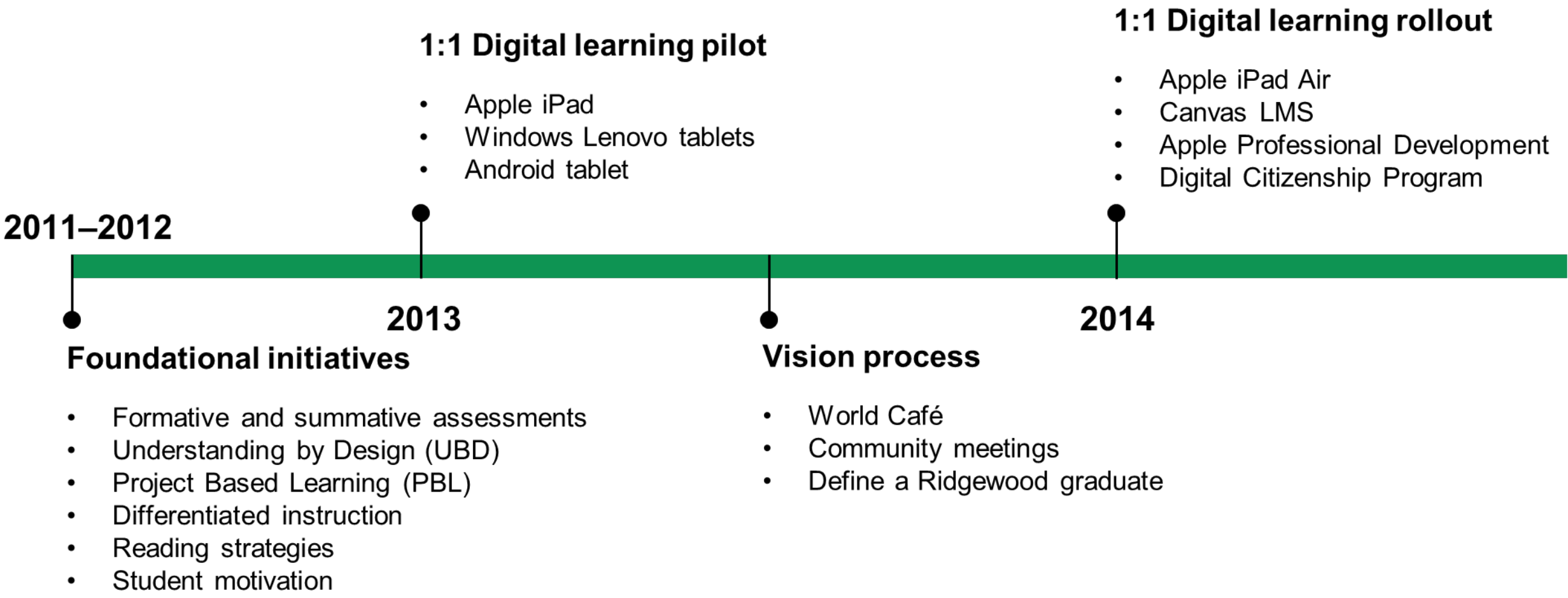
Lisa Balata, Director of Curriculum and Instruction
Ridgewood High School

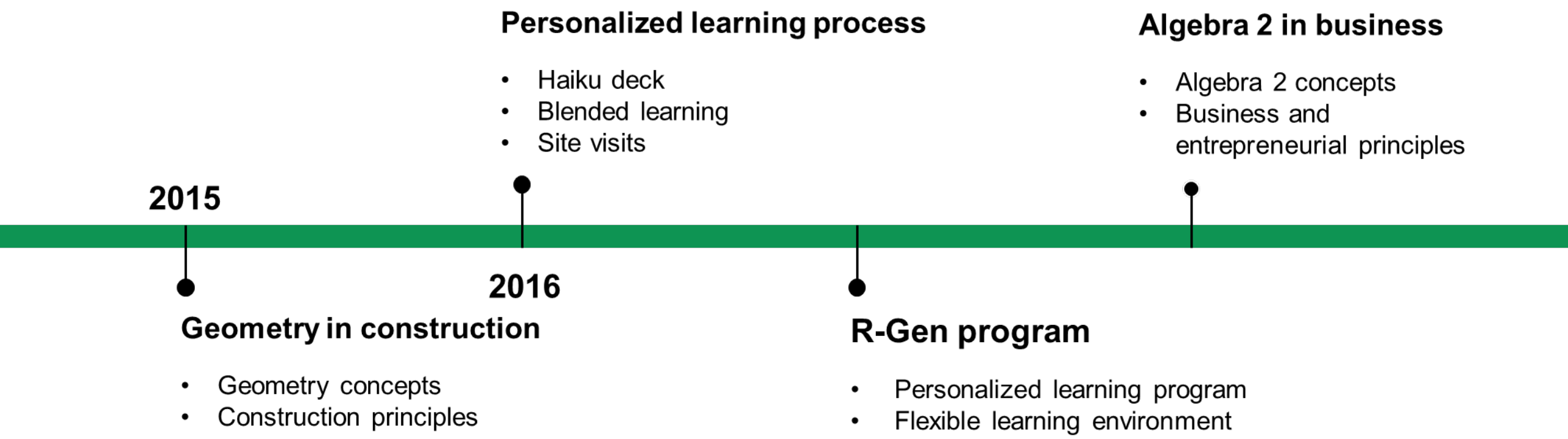
Eric Lasky, STEM Division Head
Ridgewood High School

Ridgewood's transformation

Portrait of a graduate

Graduation competencies		
Life and career	**Innovation**	**Learning**
Professionalism	Project quality	Reading
Wellness	Presentation	Writing
	Research	Problem solving
	Collaborative discussion	Financial literacy
		Globally informed citizen
		Design process


1:1 Digital learning pilot
• Apple iPad
• Windows Lenovo tablets
• Android tablet
1:1 Digital learning rollout
• Apple iPad Air
• Canvas LMS
• Apple Professional Development
• Digital Citizenship Program
2011–2012
2013
2014
Foundational initiatives
• Formative and summative assessments
• Understanding by Design (UBD)
• Project Based Learning (PBL)
• Differentiated instruction
• Reading strategies
• Student motivation
Vision process
• World Café
• Community meetings
• Define a Ridgewood graduate


2015
Geometry in construction
• Geometry concepts
• Construction principles
2016
Personalized learning process
• Haiku deck
• Blended learning
• Site visits
R-Gen program
• Personalized learning program
• Flexible learning environment
Algebra 2 in business
• Algebra 2 concepts
• Business and entrepreneurial principles

Formal PBL training, continued

- All-staff training
- PBL 101 and PBL 201
- Creating a product
- Deana Gallagher

Formal PBL training

- Buck Institute PBL 101
- Gold standard

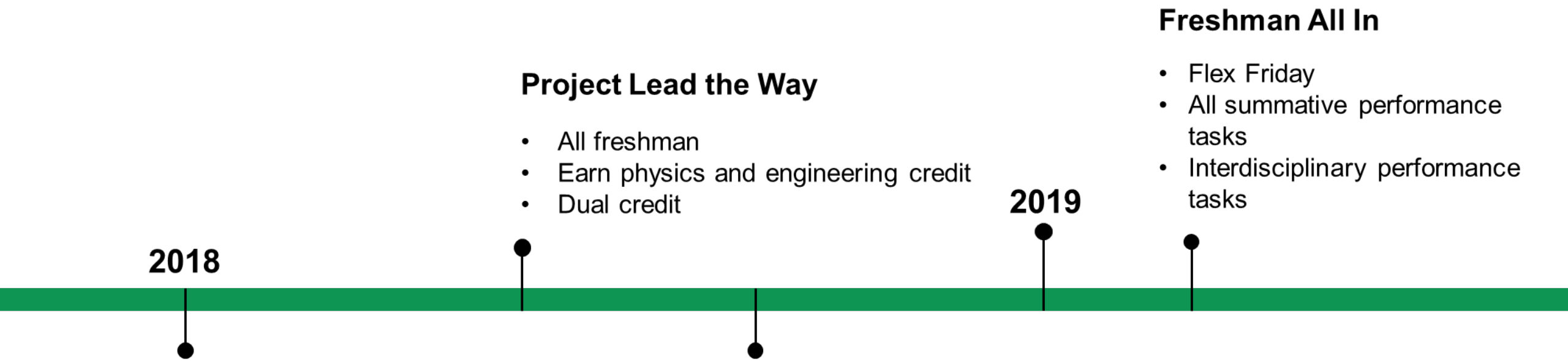
2017

ISBE competency pilot application

- One of 10 year 1 districts

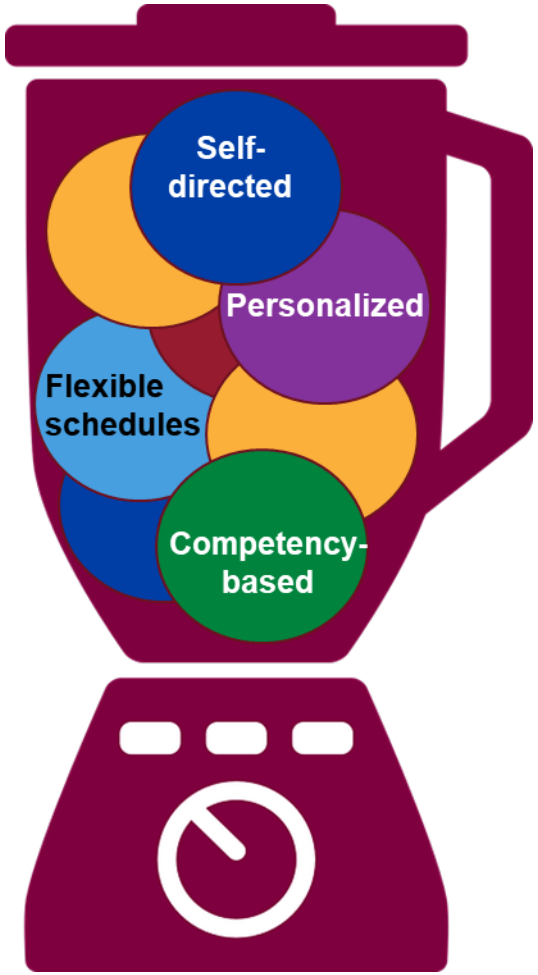
Competency pilots

- All mathematics courses
- English 1
- Habits of success


2018
Professionalism competencies
• Maintain attendance
• Ready to learn
• Stay on task
• Manage deadlines
Project Lead the Way
• All freshman
• Earn physics and engineering credit
• Dual credit
Freshman advisory
• One-to-one meetings
• Student success plan
• Career exploration
2019
Freshman All In
• Flex Friday
• All summative performance tasks
• Interdisciplinary performance tasks

Think about what your school has done in the past that can help with the transformation to CBE.

Blender skills?



Lessons learned

- Performance tasks
- Framework
- Work in progress
- Get comfortable with discomfort
- Coalition of the willing
- Transparency
- Knowledge versus behavior

Thank you!

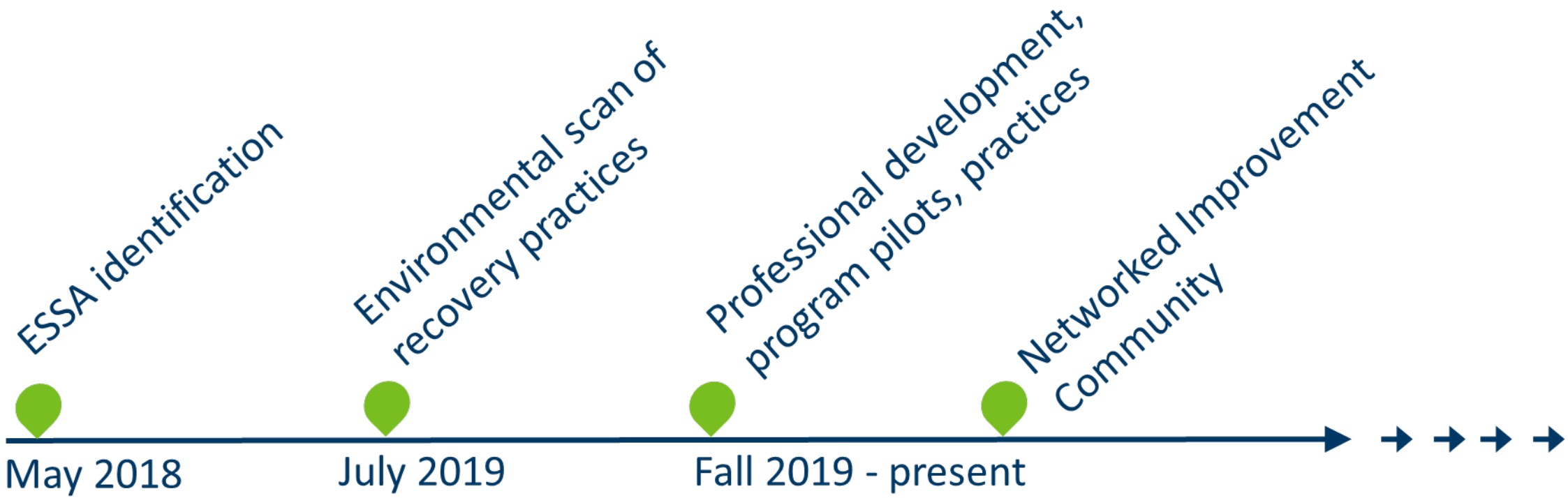
Questions for Lisa and Eric?

State-level perspective on supporting competency-based education in alternative and online learning programs

Jeff Plaman, Online and Digital Learning Specialist
Minnesota Department of Education

Sally Reynolds, Alternative and Extended Learning Specialist
Minnesota Department of Education

Minnesota's timeline related to CBE



Supports and initiatives for CBE in Minnesota

- Professional development supports and initiatives
- Flexibility for the following:
  - Schedule
  - Access to curriculum
  - Instructional practices

Flexibility in schedule

Eliminating misconceptions:

- Hours don’t equal credits
- Attendance doesn’t equal engagement and/or learning

Developing systems to support:

- Hybrid learning guidance
- Extended day options
- Student choice

Flexibility in access to curriculum

Eliminating misconceptions:

- Teachers assess for understanding
- Students can be given credit for prior learning
- Standards can be identified across disciplines

Developing systems to support:

- Comprehensive learning record recognizes nonacademic competencies, including demonstration outside of school
- Multiple platforms of content delivery that can be paced and sequenced by students

Flexibility in instructional practices

Eliminating misconceptions:

- Student choices to demonstrate learning

Developing systems to support:

- Equitable grading practices
- Supporting student-centered demonstrations of learning
- Alternative program pilots
- REL Midwest Networked Improvement Community

Moving CBE forward in Minnesota

- Expanded student choice—schedule, access of content, and demonstration of understanding
- Grading practices personalized, including assessing for prior learning
- Staff understanding and buy-in
- Systems to support, Learning Management System (LMS), digital curriculum, alternative transcripts

Thank you!

Questions for Sally and Jeff?

Wrap-up and closing remarks

Susan Burkhauser, PhD
Researcher, REL Midwest

Feedback survey

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To request a certificate of participation, email us at cgoldston@air.org.

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Thank you!

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References

Haynes, E., Zeiser, K., Surr, W., Hauser, A., Clymer, L., Walston, J., & Yang, R. (2016). *Looking under the hood of competency-based education: The relationship between competency-based education practices and students' learning skills, behaviors, and dispositions*. Quincy, MA: Nellie Mae Education Foundation. Retrieved from https://www.air.org/resource/looking-under-hood-competency-based-education-relationship-between-competency-based