23-24 School Year

What was one thing you enjoyed doing as a child to prepare for “back to school”?

Program Orientation

September 12, 2023

Objectives

- **Clarify** the goals, responsibilities, and structure of the **program**.
- Explain the **research** aspect of the project, and provide consent.
- Explain how to complete a **self-reflection** aligned to three of the CSTA Standards for CS Teachers.
- **Meet your mentoring partner**. Begin to get to know one another, and discuss expectations and boundaries for mentoring. Start developing a partnership agreement.
- **Build community** across the cohort of mentees and mentors.

Agenda

- 5 min — Welcome
- 15 min — Community Building *(breakouts)*
- 10 min — Project + Research Overview
- 15 min — Meet Your Mentoring Partner *(breakouts)*
- 10 min — Mentoring Structures
- 15 min — Partnership Agreement *(breakouts)*
- 5 min — How to Complete Self-Reflection
- 10 min — Close-out

Reflection & Promising Practices

Community Building

In breakouts, meet ~5 other mentors or mentees from across the state.

- **Introduce yourselves**: name, school, etc.
- **Share successes and challenges** from the start of the school year
- **How do you want to grow this year?**

Project + Research

Overview

Matching Experienced and Novice Teachers for Ongoing Rigorous Support in Computer Science

1:1 based on goals/ strengths + context

5+ years CS teaching experience

new to teaching CS, but not new to teaching

Matching Experienced and Novice Teachers for Ongoing Rigorous Support in Computer Science

high school, focused on ECS + AP CSP

personalized, 2x/mo mentorship meetings focused on 3 professional learning goals

Project Team Members

Bryan Twarek

PI, Vice-President of Education & Research

Dr. DaQuan Bashir

Professional Learning Manager

Dr. Aleata Hubbard Cheuoua

Co-PI, Senior Research Associate

Dr. Jennifer Tsan

Research Associate

Amy Fetherston

Co-President

Linnea Logan

Co-President

New Project Team Members

CSTA New Jersey

CSTA Black Affinity Group

Kathy Effner

Kevin Jala

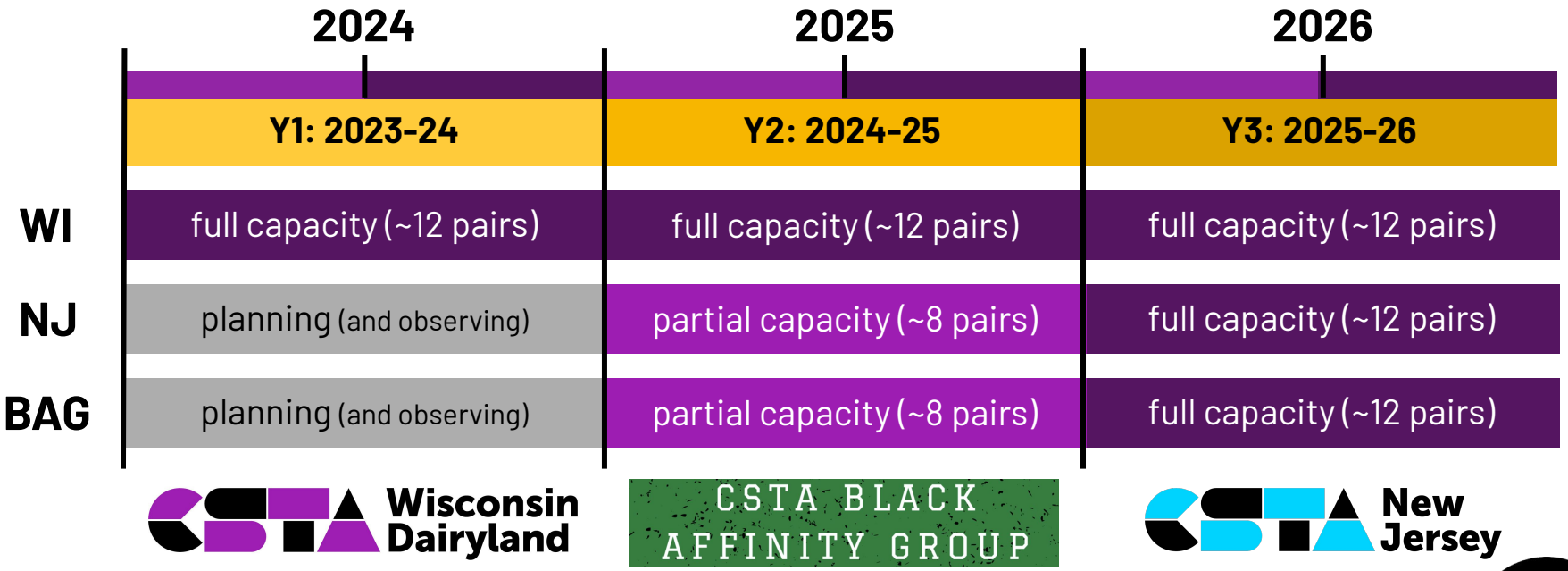
Portia Morrell

Tonya Davis

Project Overview

- CSforAll Research/Practitioner Partnership (RPP) funded by the National Science Foundation (NSF)
- small grant funded first two years of implementation (2021-22, 2022-23) in one community: CSTA Wisconsin
- medium grant to fund three years of implementation (2023-24, 2024-25, 2025-26) across three communities: CSTA Wisconsin, CSTA New Jersey, and CSTA's Black Affinity Group

Project Timeline



Anticipated Outcomes

- Increased **confidence** in teaching CS
- Increased **pedagogical content knowledge**
- Increased **use of equitable and inclusive teaching practices**
- Growth towards mastery of indicators within the *CSTA Standards for CS Teachers*

Mentee Responsibilities

- Virtually **meet with my mentor twice per month** (~1 hour each, at a consistent and mutually agreeable time)
- Participate in a ~~virtual onboarding session (Sept. 12)~~, mid-year check-in (Jan. 9), closing celebration (May 14)
- Complete a self-reflection and research survey at the beginning and end of year
- Share my self-reflections, goals, and progress with a project and research team

Benefits

- Personalized professional development
- Community and relationships
- $500 stipend

What Makes This Program Different

- Structured mentoring
  - Three cycles focused on one goal each
- Focus on pedagogy, over content
- Explicit focus on equity and inclusion
- Part of a broader community

Research Goals and Questions

Goal 1: Measure the impact of MENTORS in CS on teachers

1. How does MENTORS in CS support **mentees**' confidence, job satisfaction and commitment to teaching CS, pedagogical content knowledge, and use of equitable and inclusive teaching practices?

2. How does MENTORS in CS support **mentors'** job satisfaction and commitment to teaching CS, confidence in teaching CS, and mentoring ability?

Research Goals and Questions

Goal 2: Measure the effect of contextual factors on the the design, implementation, and impact of MENTORS in CS

3. How do sociocultural and educational contexts influence the design, implementation, and impact of Scaling MENTORS in CS structures (e.g., trainings, protocols, materials, meetings, facilitators)? ***NEW***

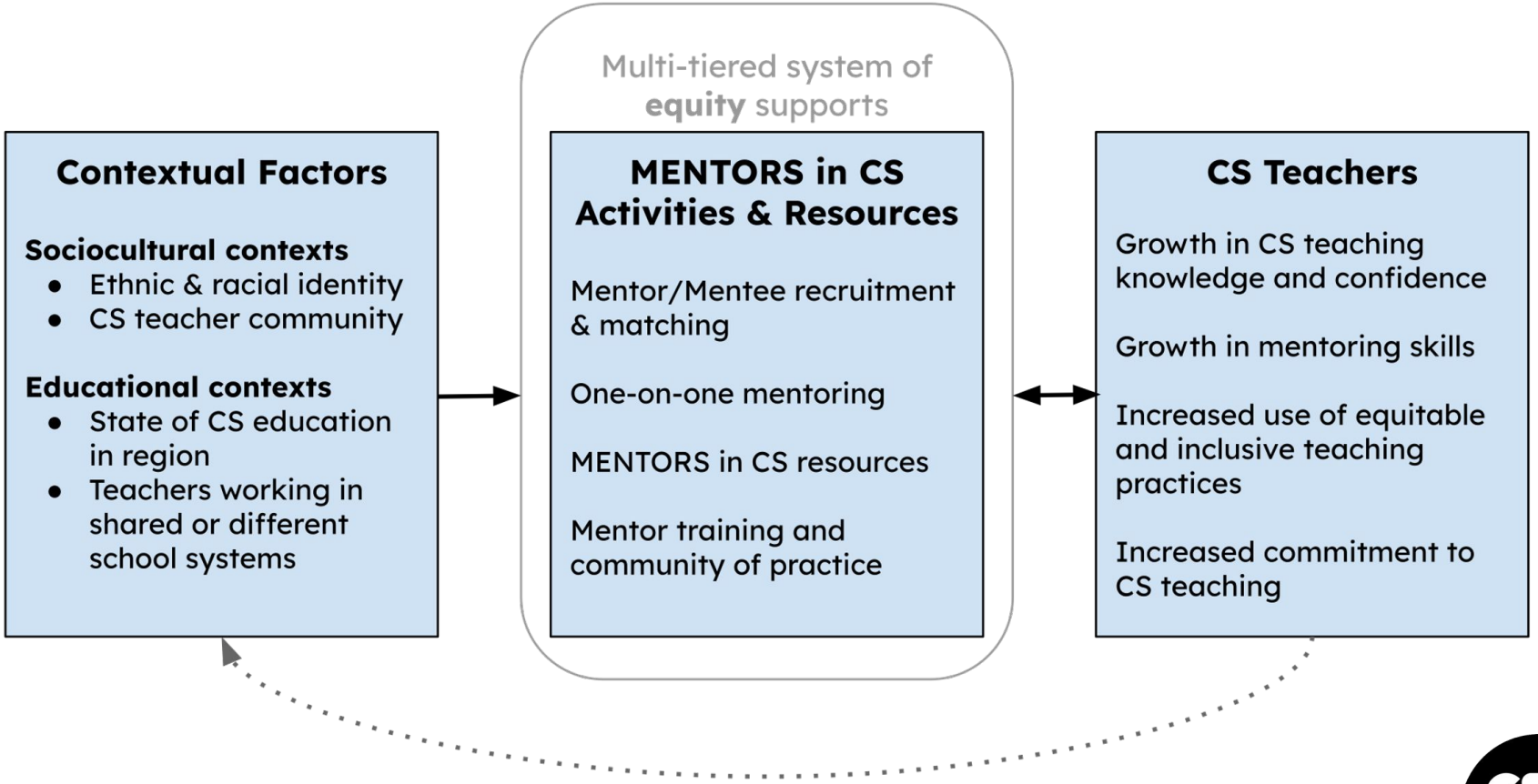
Mentor and Mentee Outcomes

Mentees demonstrated:

- a **reflective stance** towards their teaching
- increased **confidence** in CS teaching knowledge and pedagogical practices
- increased use of **equitable and inclusive teaching** practices

Mentors demonstrated:

- high **confidence** in CS teaching
- greater skills and confidence in their **abilities to mentor** and support other teachers


Multi-tiered system of **equity** supports
Contextual Factors
Sociocultural contexts
Ethnic & racial identity
CS teacher community
Educational contexts
State of CS education in region
Teachers working in shared or different school systems
MENTORS in CS Activities & Resources
Mentor/Mentee recruitment & matching
One-on-one mentoring
MENTORS in CS resources
Mentor training and community of practice
CS Teachers
Growth in CS teaching knowledge and confidence
Growth in mentoring skills
Increased use of equitable and inclusive teaching practices
Increased commitment to CS teaching

Data We'll Collect

From all mentees

- Self-assessment
  (Sept/May, 0 extra mins)
- Pre-survey (Sept, 30 mins)
- Feedback at community meetings
  (Jan/May, 0 extra mins)
- Post-survey (May, 30 mins)

From a subset of mentees

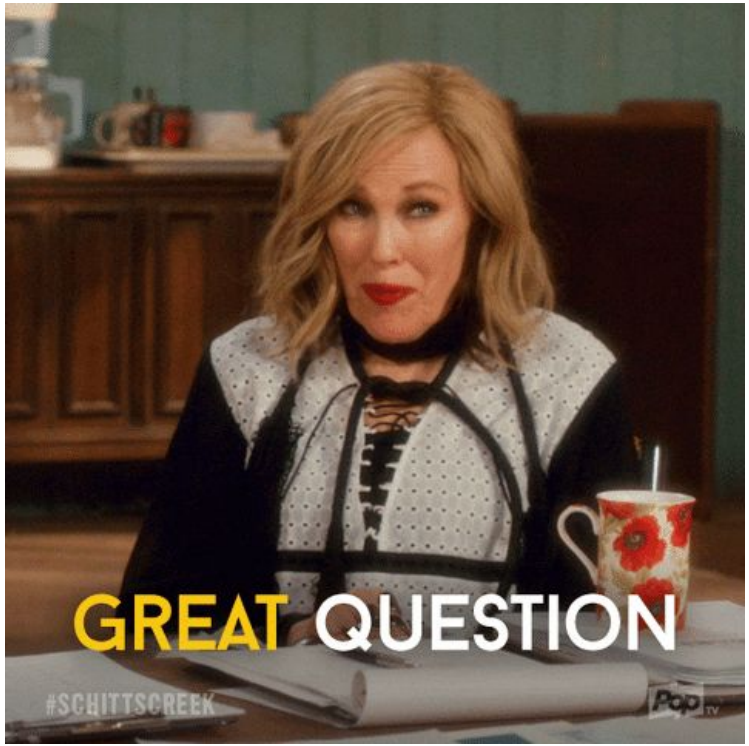
- Interview (Dec., 30 mins)
- Interview (May, 30 mins)

Research Q&A

- **Do you have to participate in the research?**
  No. Participation is completely voluntary.
- **Who will have access to my data?**
  WestEd and CSTA HQ will have access to all data.
  CSTA WI, NJ, and BAG and project advisors will have access to de-identified data.
- **What do I do next?**
  [1] Complete the consent form to say whether you will or will not join the study
  [2] Complete the pre-survey (< 30 mins)

All research links will be in your:
MENTORS in CS Toolkit

Everyone, do this now please!
surveymonkey.com/r/mentorsincs_consent


GREAT QUESTION
#SCHITTSCREEK
Pop TV

Meet Your Partner!

Get To Know Your Partner

Complete one activity in the **Relationship Building** sheet in your MENTORS in CS log.

- Your preferred name
- Some of your background
- Your identity (*I am… I am not…*)
- What you're reading
- What you're listening to
- What you're watching

Find Your MENTORS in CS Log

- Ade & Amy
- Amanda & Portia
- Dan & Mike
- Jenna & Kathy
- Julio & Brenda
- Liz & Laura
- Luke & Kelly
- Matt & Olivia
- Meria & Mary
- Natalie & Lori
- Opeyemi & Linnea
- Parker & Jodie
- Zach & Saghar

Share Out

Share in Zoom chat one thing…

- you have in common
- you found interesting
- you learned about your partner

Mentoring Structures

Standards for CS Teachers

Our framework for

- Guided self-assessment
  (at beginning and end of year)
- Goal setting
- Progress monitoring

csteachers.org/teacherstandards

CSTA, 2020

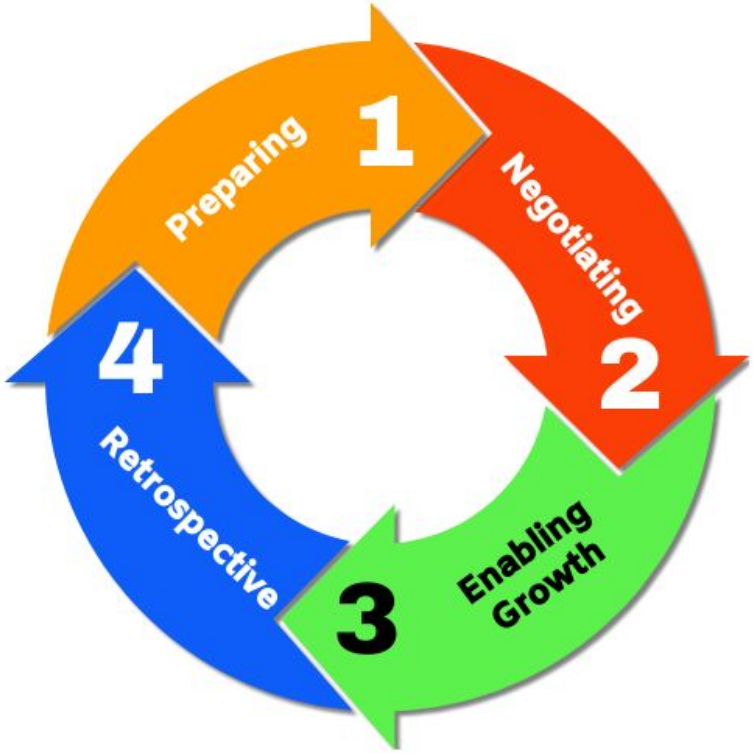
Mentorship Process

1. Preparing - Build relationships, and self reflect.

2. Negotiating - Set learning goal, and define partnership agreement.

3. Enabling Growth - Focused attention towards meeting the learning goal: Plan, implement, and reflect on action.

4. Retrospective - Reflect on successes, and identify next steps.



adapted from Zachary, 2011

Program Timeline: 3x 2.5-mo mentoring cycles

Sept.	Oct. - Dec.	Jan. - March	March - May
Orientation & Relationship Building	**Cycle 1** Classroom Practice (Standard 5)	**Cycle 2** Instructional Design (Standard 4)	**Cycle 3** Equity & Inclusion (Standard 2)

Orientation

Mid-Year Check-in

End of Year Celebration

3x whole-group meetings with all mentors and mentees

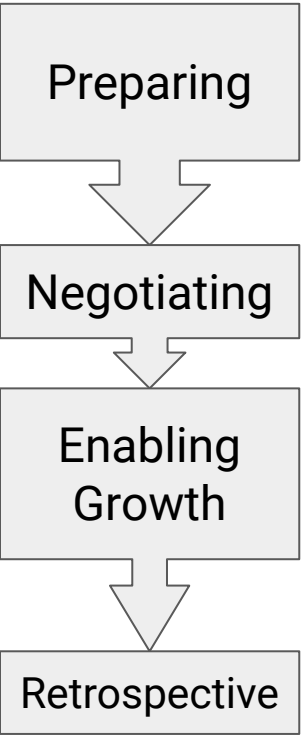
Sept. 12

Jan. 9

May 14

Cycle 1: Oct. - Dec.

about five, 1-hour 1:1 meetings per cycle, at mutually convenient time



- ~~September orientation~~ ~~Get to know each other~~
- 2nd Sept. meeting — Finish partnership agreement, and Review/finish self-reflection
- 1st Oct. meeting — Set specific goal related to Standard 2
- 2nd Oct. meeting — Plan how to meet goal
- 1st Nov. meeting — Debrief integration, Plan again
- 2nd Dec. meeting — Debrief integration, Plan again
- 1st Dec. meeting — Debrief integration, Plan again
- 2nd Dec. meeting — Reflect and set next steps


I'M SO CONFUSED!

Goal Related to Standard 5. Classroom Practice

Area of Emphasis	CS Teacher Standards Indicator
Focused exit slips	5a. Use inquiry to facilitate student learning
Specific Goal: How will you measure whether this goal is achieved?	**Timeline:** When will you achieve this goal?
Implement exit slips in at least two lessons per week, with 1-2 short questions targeting student understanding of the focal concept from that lesson.	Between the beginning of November and middle of December, I will implement two exit slips or more per week, at the end of lessons when I introduce or reinforce new concepts.
Ideas/Plans for Achieving Goal	**Resources**
-- Exit slip once a week -- Using an exit slip via google form for SEL check as well as formative assessment progress/engagement -- Can use form data over time to show individual growth/point of pride or celebration of learning or review -- Examples are Tracing Robot or a chunk of code	-- K-12 CS ed assessment item repository
Reflection & Lessons Learned (Complete after mentorship cycle)	

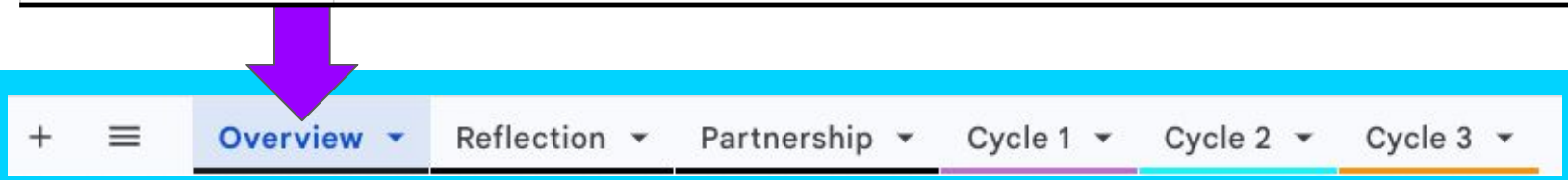
Phases 1-2. Preparing & Negotating

1st October Meeting Notes (Orientation)

Focus / Feedback Wanted	Notes
-- Start getting to know each other -- Start **partnership agreement**	
Mentee Tasks	**Mentor Tasks**
-- Complete self-reflection: St5, St4, St2 -- Complete consent form and pre-survey	-- Schedule 1:1 me[illegible]s for the rest of the semester

+ ≡ Overview Reflection Partnership **Cycle 1** Cycle 2 Cycle 3

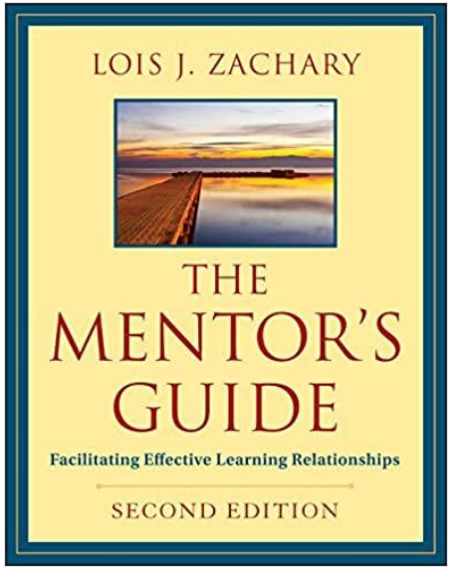
PROGRAM CALENDAR	
September	**9/12 at 6pm CT - Orientation Meeting** with all mentors and mentees.
	Complete **pre-survey** *(20-30 mins)* and **consent form** *(~2 mins)*.
	Complete beginning-of-year **self-reflection**. *See directions below.*
	Begin to **develop a strong relationship** with your mentoring partner.
	Complete **partnership agreement**.
October - December	**Cycle #1** focused on Standard 5. Classroom Practice (six 1-hour meetings).
	See example goals related to Standard 5. Classroom Practice.
January	**1/9 at 6pm CT - Mid-Year Check-in Meeting** with all mentors and mentees.
January - March	**Cycle #2** focused on Standard 4. Instructional Design (five 1-hour meetings).
	See example goals related to Standard 4. Instructional Design.
March - May	**Cycle #3** focused on Standard 2. Equity & Inclusion (five 1-hour meetings).
	See example goals related to Standard 2. Equity & Inclusion.
May	**5/14 at 6pm CT - End of Year Celebration Meeting** with all mentors and mentees.
	Update end-of-year **self-reflection** to record additional growth.
	Complete **post-survey** *(20-30 mins)*.



Partnership Agreement

Effective Mentoring

- **Actively listen**.
- **Check out assumptions** about what is going on periodically.
- **Share** thoughts and feelings **candidly**.
- **Maintain sensitivity** about the mentee's personal and learning needs.
- **Discuss accountability** and follow up regularly.
- **Reflect** on the learning taking place.
- Focus on the **mentee learning goals**.



Zachary, 2012

Complete Partnership Agreement in Breakouts

- Share preferred contact info
- Determine when you will meet, and discuss boundaries and expectations, using agreements #1-5
  - *How to reschedule meetings*
  - *How to follow up if unresponsive*
  - *How to maintain confidentiality*

- At your next 1:1 meeting:
  - Look through self-reflection and identify one area of emphasis per standard
  - “Sign” the agreement

Focus of Breakout

A	B	C	D	E	F

Mentoring Partnership Agreement

	Name	*Cell Phone*	*Preferred Email*
Mentee			
Mentor			

Add preferred contact info here.

We have agreed on the following areas of emphasis as the focus of this mentoring relationship:

(1) (2) (3)

Skip this and come back to at your next 1:1 meeting.

We have discussed the protocols by which we will work together, develop, and, in that same spirit of partnership, collaborate on the development of a work plan. In order to ensure that our relationship is a mutually rewarding and satisfying experience for both of us, we agree to:

1. Meet regularly. Our specific schedule of contact and meetings, including additional meetings, is as follows:	[specify a consistent meeting day/time, about one hour, twice per month]
2. Communicate frequently. If we need to reschedule a meeting, or if one partner is unresponsive, we will:	[note how and when partners will communicate about rescheduling or issues]
3. Maintain confidentiality of our relationship. Confidentiality for us means:	
4. Honor the ground rules we have developed for the relationship. Our ground rules are:	
5. Provide regular feedback to each other and evaluate progress. We will accomplish this by:	

Complete as many of these five items as you can. You can finish at your next 1:1.

+ ≡ Overview Reflection **Partnership** Cycle 1 Cycle 2 Cycle 3

Self-Reflection

HOW TO COMPLETE SELF-REFLECTION aligned to the Standards for CS Teachers

For each standard: 2. Equity & Inclusion, 4. Instructional Design, and 5. Classroom Practice:

1. Select at least **one strength**.
2. Select at least **one area for growth**.
3. Justify your selections with a 2-5 sentence explanation. Describe evidence related to your rating, which may include: lesson plans; courses or PD completed; participation in book studies, PLCs, or CSTA chapters; data from your student coursework or student surveys.
4. Record ideas for growth and next steps for your selections (e.g., planned targeted professional learning opportunities and collaborations).

*Notes: You should **complete two or more rows per standard**. It's okay to leave other rows blank.*

CS Teacher Standards & Indicators	Rating	Justification (Brief Explanation of Rating)	Ideas for Growth & Next Steps
Standard 5. Classroom Practice Be a responsive classroom practitioner who implements evidence-based pedagogy to facilitate meaningful experiences and produce empowered learners of CS.			
5a. Use inquiry to facilitate student learning Teachers should guide student learning through asking key questions rather than offering solutions to technical challenges. For example, teachers can prompt students to make and discuss predictions about what will happen before testing by running code (e.g., see the PRIMM method). They can also use peer instruction or Process Oriented Guided Inquiry Learning (POGIL) to guide students in learning from one another while the teacher serves as a facilitator.			
5b. Cultivate a positive classroom climate All students have the opportunity to extend their learning using the same contr	Strength Growth		
5c. F Prom choice in product and ess, and self-direc arning. Teachers should support self-dire learning by teach udents how to leverage a variety of r es and problem- techniques.			

Directions + Example

Complete 2 rows per standard (6 total)

Next Steps

Mentees

- ~~Sign consent form~~
- Complete self-reflection (6 rows total)

Mentors

- ~~Sign consent form~~
- Schedule next 1:1 meetings with partner
- Meet Tuesday, Oct. 10 at 6pm CT for next CoP

At your next 1:1 in September:

- Finish partnership agreement
- Review/refine self-reflection


@LateNightSeth
I HAVE A LOT OF QUESTIONS.

Optimistic Closure

What's one thing you…

- appreciate about today?
- are looking forward to?


THANK
YOU!


WHEN ONE OF
US SHINES