

# Learning to Mentor Preservice Mathematics Teachers in Urban Schools



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# Our Purposes

- Share our model for preparing experienced mathematics teachers to mentor pre-service teachers
- Describe development and use of self-assessment scales
- Discuss impact of training on teacher development and student learning

# Agenda

- Welcome and introductions
- Our context
- Preparing our mentors
  - Self-assessment tools
  - Cases
- A mentor's reflections and findings
- Concluding comments and questions

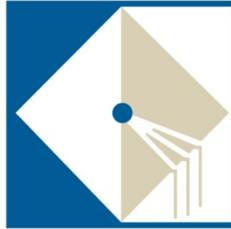


# Our Context

- \$2.5 million Noyce project
- Funded by NSF
- Six years
- Recruit and prepare STEM majors to teach foundational-level mathematics in urban schools
- Prepare experienced mathematics teachers to serve as mentors and teacher leaders



**AUHSD**  
Anaheim Union  
High School District



THE  
SPIRIT  
OF  
LEARNING  
SINCE 1898

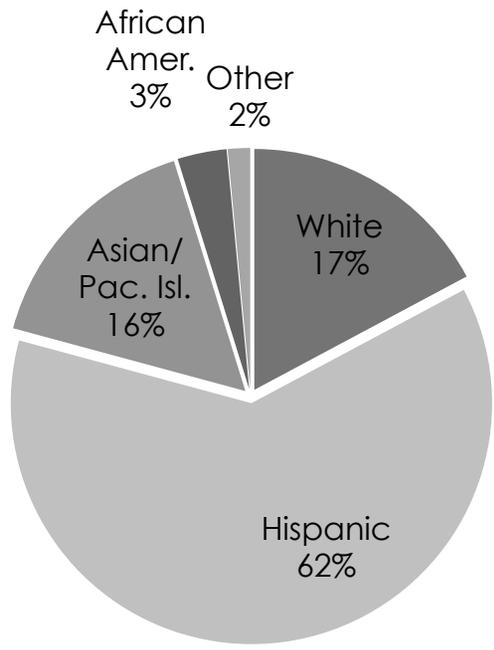


**SANTA ANA**  
COLLEGE

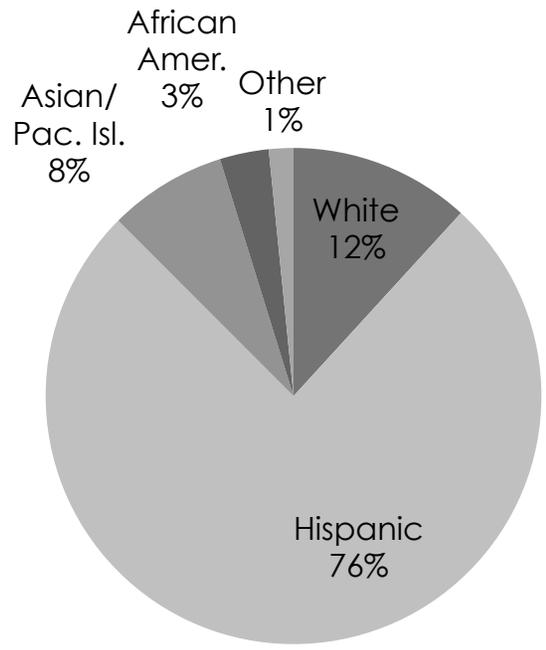


CALIFORNIA STATE UNIVERSITY  
**FULLERTON**



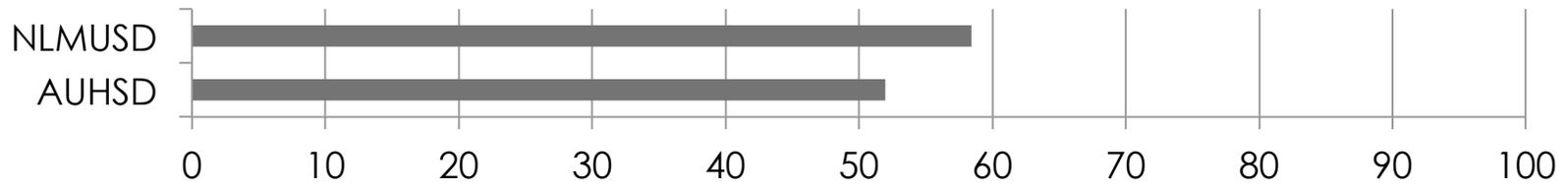


**AUHSD**



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**% Free/Reduced Lunch**



# Preparing Our Mentors



- Summer Institutes
  - Reflections
  - Defining the role of mentor
  - Beginning skill building
- Monthly meetings
  - Questions and answers
  - Self assessments
  - Group problem solving using mini cases

## Successes

*My partner and I have found the time to meet!*

*I waited and he recognized and solved a problem himself.*

*We have developed great non-verbal communication skills.*

*Second period was awesome today!*

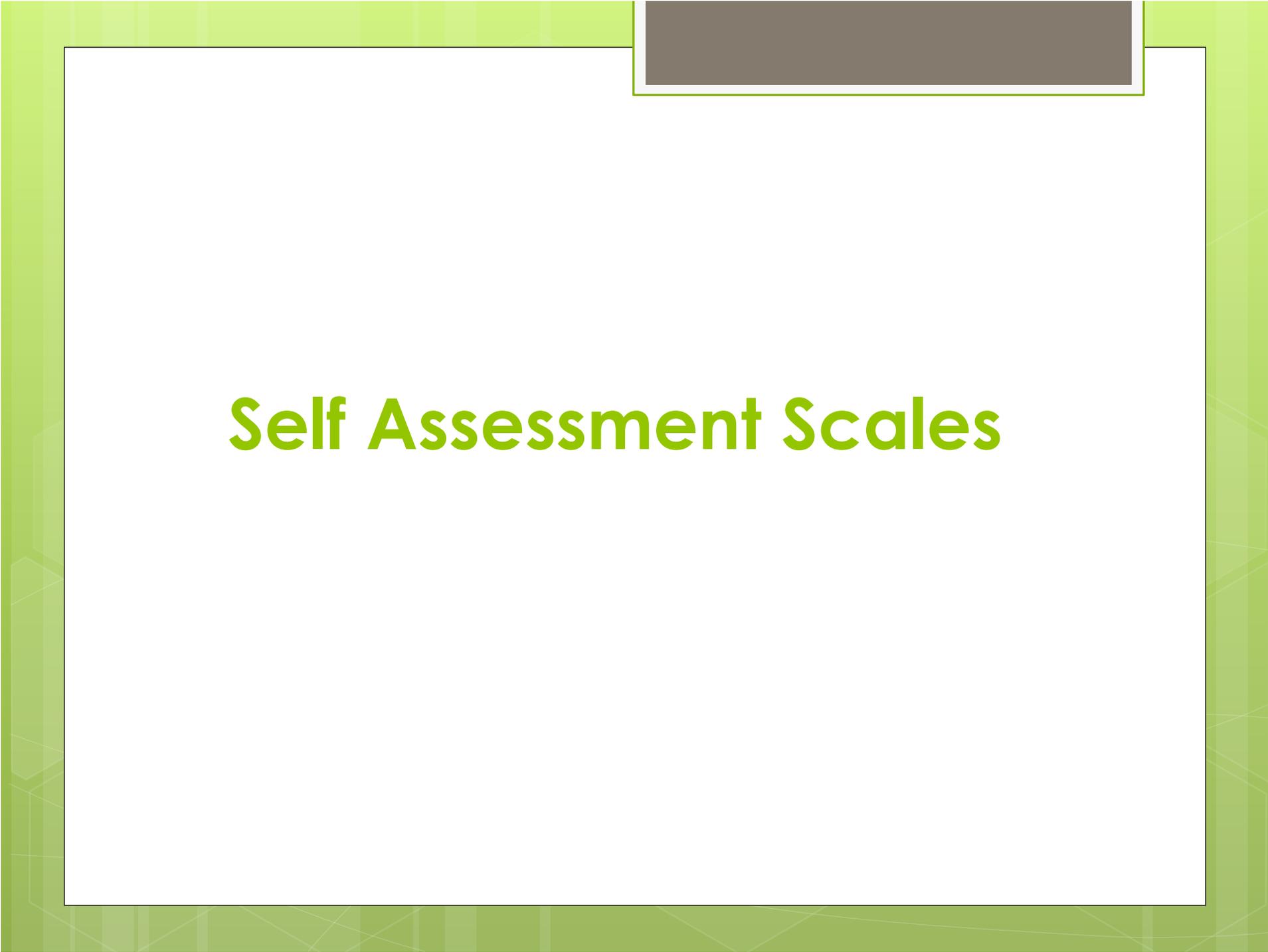
## Questions

*What do I say when my student teacher asks for a day off?*

*My co-teacher leaves right after school. I want her to stay so we can talk. What should I do?*

*How do I get my students to recognize my student teacher as a teacher?*

*How do I not hurt my partner's feelings when I give her feedback on a lesson?*



# **Self Assessment Scales**

**Master Teaching Fellow Continuum of Mentoring Performance: Trusting and Supportive Environment (p. 1)**

	<b>Stalling</b>	<b>Emerging</b>	<b>Applying</b>	<b>Integrating/Innovating</b>
<b>Guidance</b>	I respond to my teacher candidate's questions and provide him with materials and ideas... if I'm not too busy. I wait for him to ask for ideas and assistance.	I ask my teacher candidate if she has any questions and respond promptly and honestly. I ask if she needs anything and willingly provide it.	I offer materials that I anticipate might be helpful to my teacher candidate. I explain my planning process and review student data with my teacher candidate so he understands how I make instructional decisions.	I invite my teacher candidate to review student data and plan with me, working around her schedule if necessary. I communicate that I value her contributions of ideas, resources, and materials.
<b>Talking about my teacher candidate</b>	I have shared information about my teacher candidate with colleagues, but I told them to keep it to themselves.	I do not talk about my teacher candidate behind her back with colleagues unless I think someone can help me solve a problem. I mostly keep it professional.	I do not talk about my teacher candidate with colleagues behind his back. I tell my teacher candidate about any concerns I have and invite open communication.	I do not talk about my teacher candidate behind her back. If I have concerns, I share them with her directly and kindly. I tell her that our discussion will not go beyond the "program walls." (In other words, I let her know that I communicate honestly with program staff about anything we discuss because we're all in this together!)

**Master Teaching Fellow Continuum of Mentoring Performance: Trusting and Supportive Environment (p. 2)**

Feedback	I take the time to tell my teacher candidate all the areas in which he needs to grow, or I don't provide any feedback at all.	I offer positive and negative feedback when my teacher candidate tries something.	My teacher candidate and I discuss his work and I help him reach valid conclusions by being an active listener and asking clarifying questions.	My teacher candidate and I discuss both HER work and MY work, and we help each other reach valid conclusions about our teaching. I model active listening and clarifying questions. I model thoughtful reflection on my teaching.
Status with students	Because my students' learning matters to me, I don't hesitate to correct my teacher candidate in front of the students.	I pull my teacher candidate aside during a lesson to talk to her if I don't like what she's doing.	Unless my teacher candidate commits a serious error that needs immediate attention, I do not interrupt him. We debrief after the lesson. If there is a serious error, I find a way to ensure I don't publicly correct him. I might, for example, use a prearranged signal to alert him we need to talk NOW, and we quickly communicate in a manner that allows him to save face with the students.	If my teacher candidate makes a mistake during a lesson, I trust that she will figure it out and correct it. Unless it's serious and requires immediate attention, I simply make a note of it and hold a reflective conversation after the lesson that supports her in arriving at the appropriate conclusion. If the error is serious, I find a way to communicate respectfully and in a manner that allows my teacher candidate to save face. I model correcting my own mistakes when I make them during a lesson.

**Master Teaching Fellow Continuum of Mentoring Performance: Trusting and Supportive Environment (p. 3)**

	<b>Stalling</b>	<b>Emerging</b>	<b>Applying</b>	<b>Integrating/Innovating</b>
<b>Responsibility</b>	I don't really give my teacher candidate any responsibility in the classroom. I don't trust that he is competent enough to teach a lesson or join me in the front of the room. He can watch me for now.	I give my teacher candidate some classroom responsibility, mostly trivial tasks such as taking roll and grading papers. I'm sure she's not ready to do much more than that.	I encourage my teacher candidate to be involved in teaching now. I get him to the front of the room often and applaud his efforts to try something. I make sure he feels like a teacher.	I actively encourage my teacher candidate to be involved in teaching now. I ensure that she is a strong presence in the room by not allowing her to sit in the background and by valuing her contributions. I applaud her efforts to try something. Sometimes I help her think through a lesson or activity before she tries it with the students. Other times I just open the door for her to try something but I make it clear that I will help if she wants help. I believe in her!
<b>Ego</b>	Honestly, I have a bit of an ego problem. I know I'm better than most other teachers, and I make it clear to my teacher candidate that he has a lot to learn from me. Maybe someday he'll be as good as I am, but he certainly isn't now and I let him know that. He needs to do what I say.	I know I'm good, but I keep my ego in check. I try not to act like I'm the holder of all knowledge, but I am very concerned that my teacher candidate sees me as an expert.	I have a lot to share with a teacher candidate, and I hope he's as excited as I am about working with my students. I like to learn and want to get better every year. I try to model lifelong learning.	I am excited to work with my teacher candidate because I know we'll learn from each other. I am confident yet humble. I admit it when I make mistakes or a lesson doesn't go the way I wanted it to. Then I get on with the business of figuring out how to make it better the next time. I include her in that reflective process.

**Master Teaching Fellow Continuum of Mentoring Performance: Professional and Challenging Environment**

	Stalling	Emerging	Applying	Integrating/Innovating
<b>Challenging environment</b>	I don't expect much from my teacher candidate. I provide resources and the textbook and tell him what and how to teach.	I respond positively when my teacher candidate suggests activities and lessons, but I control what she tries and doesn't try. I know what works with my students.	I encourage my teacher candidate to suggest and implement new activities and lessons. I believe he can be successful and want him to test his ideas. We talk about his teaching, and I offer feedback to promote his continual improvement.	I have high expectations for my teacher candidate and encourage risk taking. I believe she wants to be, and is capable of becoming, an excellent teacher. I encourage my teacher candidate to think deeply about her teaching rather than tell her how to teach, and I help move her thinking along by frequently engaging in reflective conversations with her. I help her set goals for herself, based on data, instead of setting them for her.
<b>Professional environment</b>	Promptness isn't my thing: I am frequently late to class and meetings and don't complete paperwork on time. I never or rarely have well developed lesson plans and frequently "wing it." I complain about my colleagues, the students, and their families. I don't expect much from my students and blame parents for their lack of progress. I let my teacher candidate come to class late and don't expect much in the way of lesson plans because I know he's busy and I want to be his friend.	I am usually prompt in my professional activities, and I expect the same from my teacher candidate. I want to help her adopt professional behaviors and attitudes and so I talk to her about how she should behave. When I have well developed lesson plans, I share them with my teacher candidate. Occasionally, I express frustration about my colleagues, students, or their families, but I apologize and then try to be more positive.	I am prompt and thoughtful in my professional activities, and I expect and encourage the same from my teacher candidate. I demonstrate thoughtful, well planned instruction. My teacher candidate and I discuss what it means to be a professional, and I encourage her to interact positively with colleagues, students, their families, and the community.	I am a model of professionalism, always or nearly always arriving to class and meetings on time and fully prepared. I share my lesson plans and communicate the importance of planning for instruction. I promptly and thoughtfully complete all professional activities. I share my enthusiasm for teaching and learning with my teacher candidate and convey a belief in and respect for my colleagues, students, students' families, and the community I serve.

Master Teaching Fellow Continuum of Mentoring Performance: Welcoming Environment

	Stalling	Emerging	Applying	Integrating/Innovating
Welcoming environment	<p>My teacher candidate's name is not posted in the classroom but it's on my to-do list! I told the students he is my student teacher and introduced him to the teacher next door. I forgot to invite him to Back-to-School Night or failed to introduce him to the families who attended. I do not share the students with my teacher candidate. Instead, I let him watch me teach from the back of the room ... or take care of paperwork for me. I don't have enough space or furniture or whatever, so I couldn't give him a workspace. I make it clear to my teacher candidate that I'm the boss.</p>	<p>I write my teacher candidate's name on the white board in the classes she shares with me, but it's not permanently posted. (Wouldn't that confuse students in my other classes?) I told my teacher candidate to let me know if there's something she wants to do. I sometimes invite my teacher candidate to the lounge or sit with her in faculty meetings. I introduce her to the people who are there. I let her put her materials on my desk and sit in my chair sometimes. I communicate that I'll help her meet program expectations.</p>	<p>I welcomed my teacher candidate to the school and classroom with a small gift, introduced him to several people on campus, and encouraged him to get involved. I posted my teacher candidate's name in the room and introduced him to the students. I told him to feel free to ask questions and to wander around the room and help individuals and get to know them. I provided a workspace for my teacher candidate. I communicate that we're in this together and that I'm looking forward to our work together.</p>	<p>My teacher candidate's name is posted in the classroom. I am proactive about including her in school and classroom activities. I don't let her sit on the sidelines. I introduced her to the staff and faculty at my site as we toured the school, told the students she is my co-teacher, and invited her to say a few words about herself at Back-to-School Night. Even though space and furniture are an issue (or they aren't an issue--lucky me!), I found a way to provide a workspace for my teacher candidate. I communicate enthusiasm to my teacher candidate and others about her presence in my classroom and convey that I am excited about my opportunity to learn from this experience.</p>

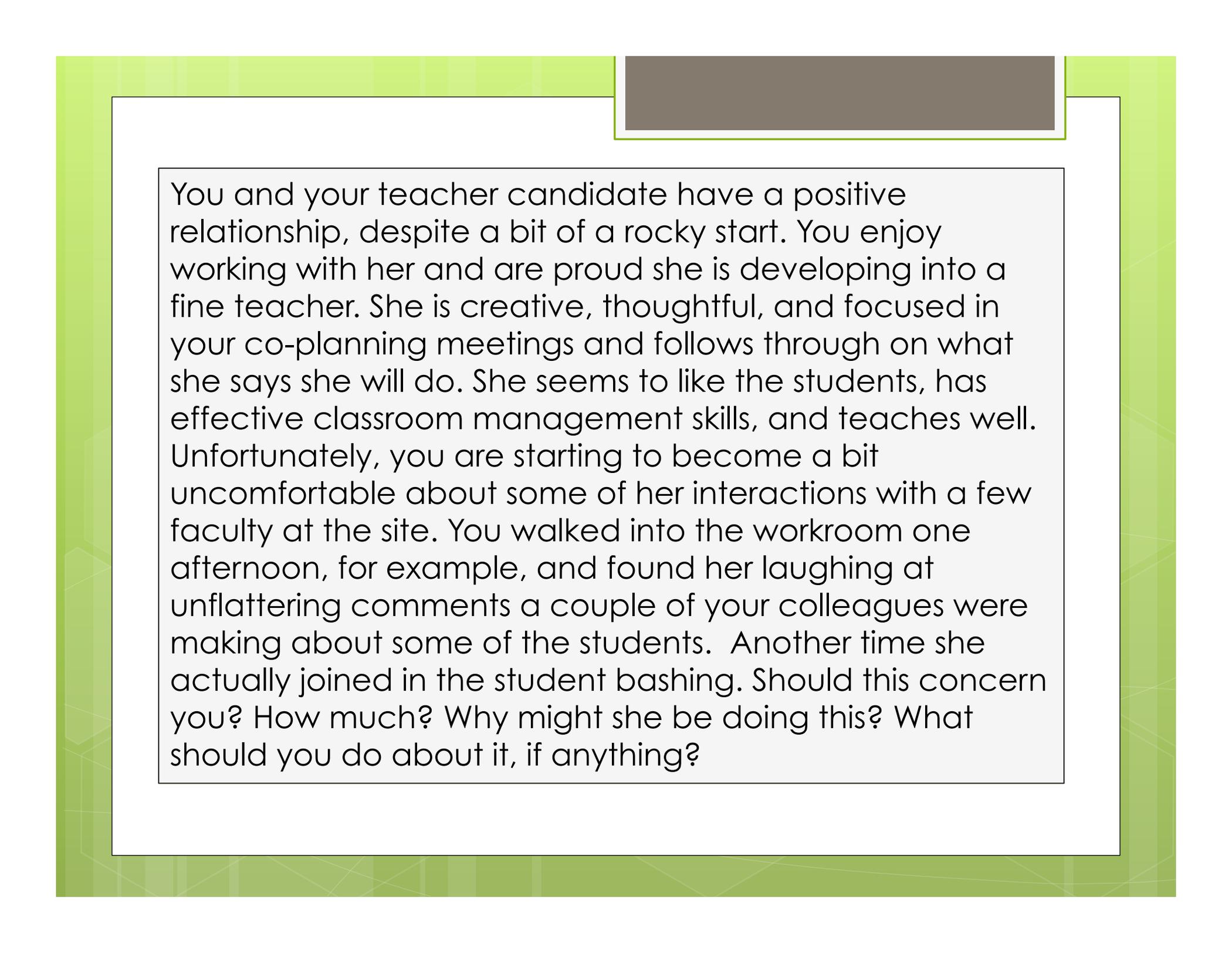
Master Teaching Fellow Continuum of Mentoring Performance: Trusting and Supportive Environment

	Stalling	Emerging	Applying	Integrating/Innovating
Guidance	I respond to my teacher candidate's questions and provide him with materials and ideas... if I'm not too busy. I wait for him to ask for ideas and assistance.	I ask my teacher candidate if she has any questions and respond promptly and honestly. I ask if she needs anything and willingly provide it.	I offer materials that I anticipate might be helpful to my teacher candidate. I explain my planning process and review student data with my teacher candidate so he understands how I make instructional decisions.	I invite my teacher candidate to review student data and plan with me, working around her schedule if necessary. I communicate that I value her contributions of ideas, resources, and materials.  <i>We both work our schedules so we can plan together. It's difficult but important.</i>
Talking about my teacher candidate	I have shared information about my teacher candidate with colleagues, but I told them to keep it to themselves	I do not talk about my teacher candidate behind her back with colleagues unless I think someone can help me solve a problem. I mostly keep it professional.  <i>Sometimes I appeal to colleagues for help... or I vent. "</i>	I do not talk about my teacher candidate with colleagues behind his back. I tell my teacher candidate about any concerns I have and invite open communication.  <i>Working on this</i>	I do not talk about my teacher candidate behind her back. If I have concerns, I share them with her directly and kindly. I tell her that our discussion will not go beyond the "program walls." (In other words, I let her know that I communicate honestly with program staff about anything we discuss because we're all in this together!)

# Mini Cases

Your teacher candidate never goes to the lounge with you. He eats in the classroom or goes home for lunch. You understand he is busy and may need the time to catch his breath, but you are beginning to wonder if he doesn't feel like a part of the campus community. Should you insist he join you in the lounge? Should you talk to him? What should you say? Does it really matter anyway if he doesn't hang with your colleagues in the lounge?





You and your teacher candidate have a positive relationship, despite a bit of a rocky start. You enjoy working with her and are proud she is developing into a fine teacher. She is creative, thoughtful, and focused in your co-planning meetings and follows through on what she says she will do. She seems to like the students, has effective classroom management skills, and teaches well. Unfortunately, you are starting to become a bit uncomfortable about some of her interactions with a few faculty at the site. You walked into the workroom one afternoon, for example, and found her laughing at unflattering comments a couple of your colleagues were making about some of the students. Another time she actually joined in the student bashing. Should this concern you? How much? Why might she be doing this? What should you do about it, if anything?

Your teacher candidate is a friendly, energetic, and positive person. You--and the students--are happy to have him in the classroom. Unfortunately, you are beginning to become concerned about his commitment to the students and the program. He has been late more than once and wasn't prepared for a co-teaching lesson you planned. Now he has asked you if he can "take a day off" to work on a course assignment. You like the guy, but really? What should you do? What kind of conversation might you have?



You planned a station teaching lesson and are in the middle of your instruction when you look across the room to see that your teacher candidate is not doing exactly what you wanted her to do with her group. Your students are working independently right now and you wonder what you should do. You consider--

- \*keeping your eyes open to see how her station progresses
- \*leaving your station to position yourself near her station so you can subtly redirect her
- \*leaving your station and interrupting her teaching to show the students a better way to solve the problem

Which, if any, of these options should you select? What are other possible responses? What kind of conversation might you have?



# Reflections

# MT2 Program

- National Board
- Co-Teaching
- Collaboration

# National Board Certification

- Better teacher (read literature, reflect)
- Better communicator (higher level of specificity)

# Co Teaching

- Co-Teaching is defined as two teachers working together with groups of students and sharing the planning, organization, delivery and assessment of instruction and physical space.

# More on Co-Teaching

- Parallel Teaching
  - Model good classroom management skills.
  - Ask good questions
  - Implement ideas
  - Work with different groups within the classroom

# Collaboration

- Discuss mentoring and issues.
- Observe our mentors mentor us.
- Create scales.
- Demonstrate co-teaching model.
- Discussions on implementing co-teaching.
- Understanding we share certain challenges ---such as improving communication

# Scales on Environment

- Trusting
- Supportive
- Welcoming
- Challenging
- Professional

# More on Scales

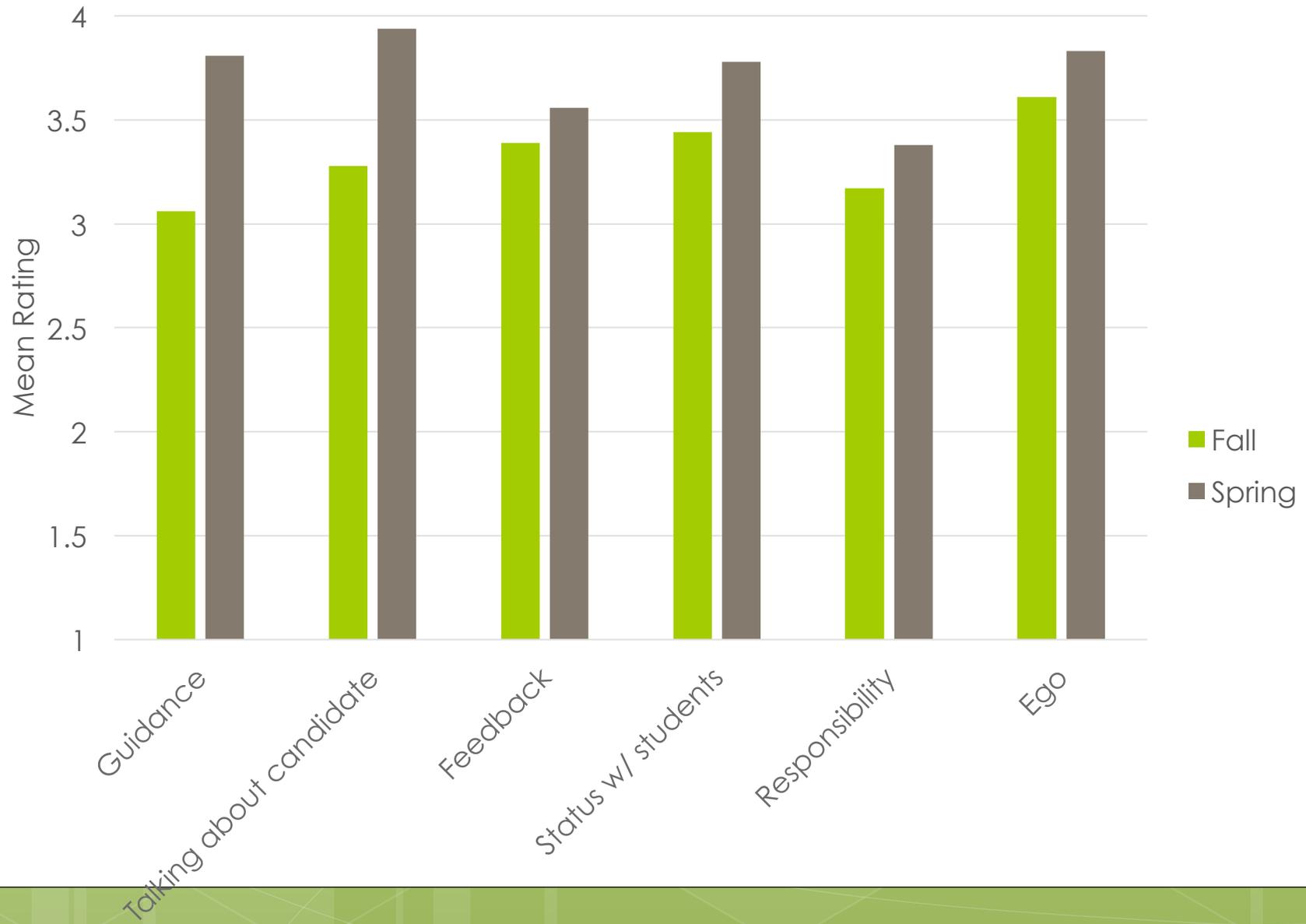
- Ownership
- Reflection
- Quote

“The scales, as written, helped me to ‘put myself in a box’ and ‘hold up a mirror’ so that I could be honest with myself regarding my professional relationship with my [student teacher] and my day-to-day interactions with her. The scales guided me in the direction of where I wanted to be and not want to be.” Carrie Balmages

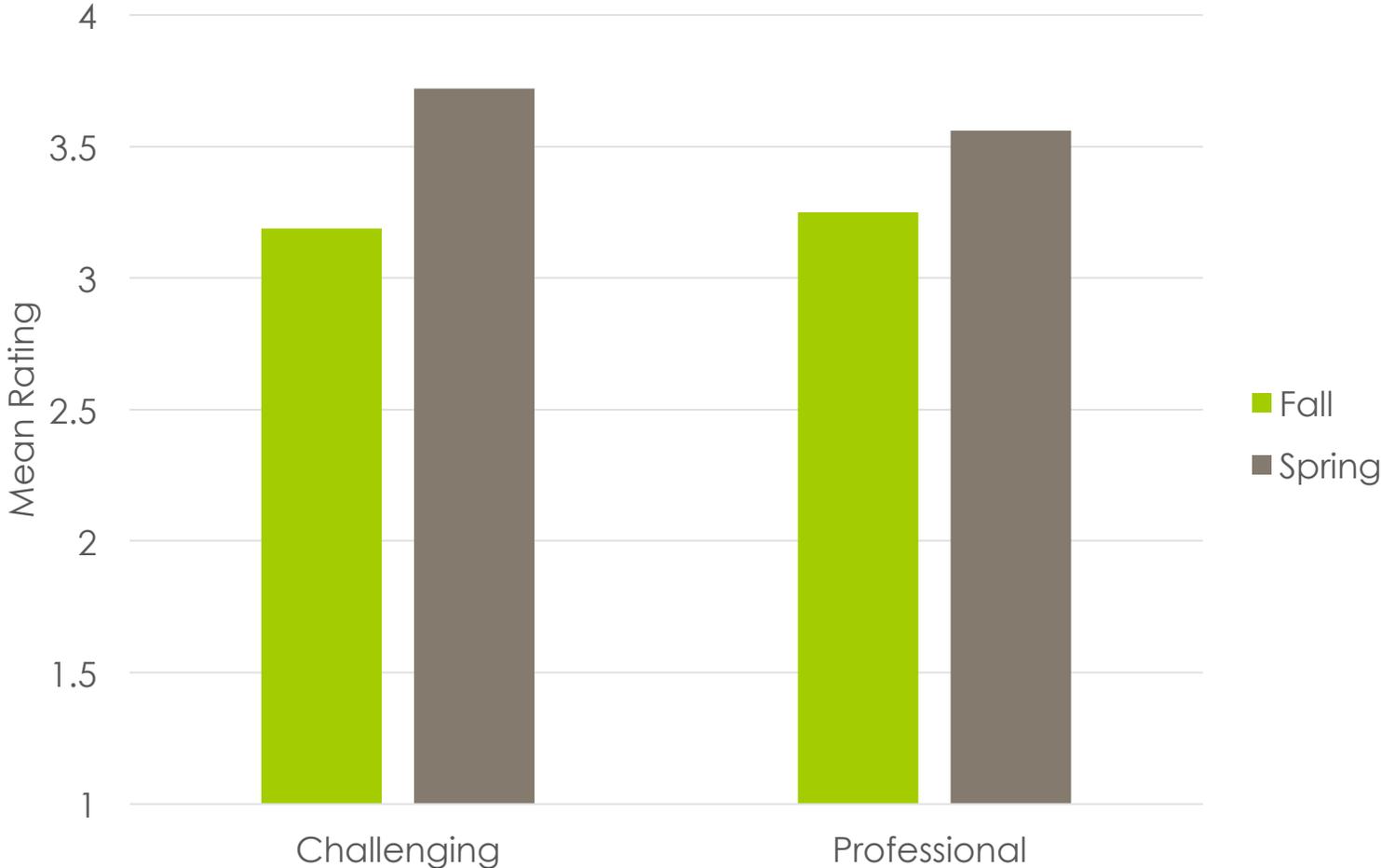
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### Trusting and Supportive Environment



### Challenging and Professional Environment





# Concluding Comments

## Learn More!

Yopp, R. H., Ellis, M. W., Bonsangue, M. V., Duarte, T., & Meza, S. (in press). Piloting a co-teaching model for mathematics teacher preparation: Learning to teach together. *Issues in Teacher Education*, 23 (1), 91-111.

