



Microsoft Tech Resilience Mentoring Program

Training Session (4 of 4)
February 9, 2021

Welcome back

Pilot: Fall 2020

The best parts of this experience were how much it developed my confidence in life in general with how to identify my strengths and weaknesses in my thought process.

It was a unique take on a mentorship, not simply teaching us more information about computer science, but addressing the mental challenges we'll face as individuals and how to overcome them.

- Mentee from 2020 pilot

96%

gained new problem-solving strategies to take to internship/course

99%

gained new strategies to take more agency and ownership over learning



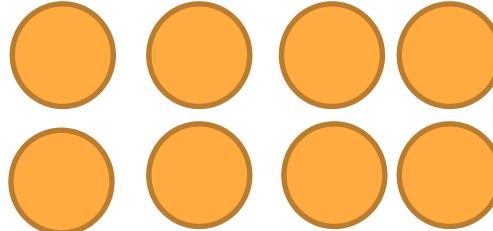
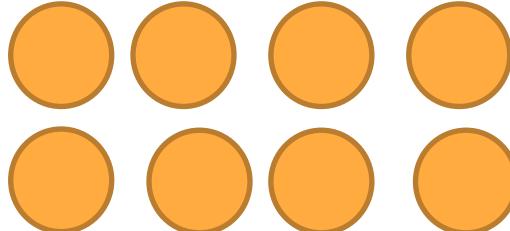
7 week commitment



you



+ co-mentor



cohort of 12-16 mentees



- **by March 1:** Program info announced
co-mentor + time
- **March 14:** Week 0 (prep)
cohort rosters provided
- **March 21:** Week 1 (welcome cohort!)

Learning lab structure

Lead in

Learning topic 1 (ex: self-efficacy)
mentor story, video, breakout, report back

CS Challenge

mentor lead-in, breakout, report back

Learning topic 2 (ex: growth mindset)
mentor story, video, round robin

Open conversation

Learning Labs



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Agenda

- Settle in
- Strike a balance
- Co-mentor facilitation
- Next steps

Strike a Balance

- Share
- Step up
- Frame
- Structured curriculum
- Listen
- Share space
- Respond
- Your/mentee topics/ideas

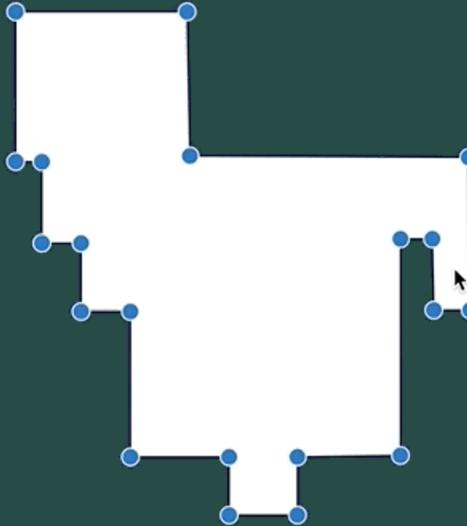


Framing the CS Challenge

- Activities = opportunities
 - Simulating teamwork communication
 - Some find challenges difficult, others easy
 - Solving the challenge is *not* the point
- You frame the challenge **and** stay flexible
 - What opportunity does this offer, from your view?
 - Have students discover and ask questions

Introduction: Am I up to the challenge?

⌚ 5 min



Remember... an archaeologist asked you for help! Given a building outline, place scanners that cover the interior. This is known as the "Art Gallery" problem: where do you place "guards" in a simple polygon so that all walls are protected?

Scenario example (Session 3 role play)

Your co-mentor is calling upon students to share what they thought about the Art gallery challenge. The next student says, “We picked the ‘every other’ plan, and it always worked. So, honestly, this kind of felt like a waste of my time. There is so much going on in the news and I have so much homework. Why are we doing this activity again?”

Strike a Balance

- You can frame the challenge **and** stay flexible
 - What opportunity does this offer, from your view?
 - Having students discover and ask questions
 - Mirror **and** Coach

Mirror: Notice and reflect back what you observe

Coach: Ask if willing to try alternative strategies or views

Beek, G. J. Zuiker, I., & Zwart, R. C. (2019). Exploring mentors' roles and feedback strategies to analyze the quality of mentoring dialogues. *Teaching and Teacher Education*, 78, 15-29.

Stone, D. & Heen, H. (2014). *Thanks for the Feedback: The science and art of receiving feedback well*. Viking Books.

Mirror Language

“**Tell me more** about what you are doing.”

“**Walk me through** so I can see how you are approaching it.”

“It sounds like you are stuck here. **Did I get that right?**”

Scenario example

[empathy/active listening]

"Why are we doing this activity again?"

I hear you. I understand where you are coming from.

I've been there, too. Even today at work I had a big mtg with my team and my mind was on the news.

Would you be willing to walk us through how you've been balancing the news and your workload?

Coach Language

“Are you willing to try a new strategy?

Let’s review a few alternatives.

One option is: _____. Another is _____. ”

“What if you had done it a different way?

What do you think would change in the outcome?”

“Take a step back and tell me how you think this connects to _____. ”

Scenario example

[connect to the topic]

"Why are we doing this activity again?"

I did want to suggest one way we can think about this activity beyond if "the plan worked." In the video, it's also about stepping back to study ourselves systematically.

I'd love to hear how people are coping with constant news. Can we step back and think about this strategically? Are you scheduling a time for news or removing certain apps from your phones? What plans are working for you and which ones are not?

Or it could be...

[focus on the topic/activity]

Thank you for sharing. While this may have been easy for some, others may have found it more difficult.

And sometimes there are questions that you can ask about a simple problem. For example, if you think it will always work, can you justify why?

The plan seems pretty wasteful, so another question is if you could revise the plan to use fewer guards. Did anyone try adjusting to every third corner instead of every other?

Or it could be...

[pull cohort together]

But, you've highlighted a challenge within the challenge! We all have different life experiences and some things that come easily or not. Even when the activity seems easy, it's a chance to practice navigating collaborative experiences.

In my own work, I see this come up. I've been working on my team's product for years now, but I know that things that are second-nature to me might not be to someone new. In order to help onboard, I try to understand what can be challenging about it, which means stepping back from my own vantage point. It's worth having this conversation to hear how others experienced the activity.

Take away messages

- Mentors frame the challenge
 - Coach students to try alternative perspectives
 - Bring their own expertise to this discussion
- Mentors stay open to students' questions and the meaning they are trying to make
- Mentors can go in a different direction as needed
- Toolkit offers opportunities; you have flexibility to adapt

Scenario A: it could look like...

Mentor (Audrey)	<p>Does anyone have anything they'd like to add regarding the pivot prompts?</p>
Mentee (Becky)	<p>So what is the solution when the guards can move? I'm really interested in robotics and would like to understand how to implement it.</p>
Mentor (Audrey)	<p>That's a great question, Becky! I actually don't know the answer, so let's take a moment and think about this as its own problem.</p> <p>How can we approach solving the problem of finding out the solution to the problem of when guards move?</p> <p>Remember from the video: it helps to come up with a few ideas. Here's one: you could try to find out if someone at your school is working on robotics. Pause for a moment -- did you picture a professor? A student? Examine the constraints you may have put on the problem.</p> <p>Does anyone else have an idea to suggest? Different perspectives will help us practice stretching our problem-solving approach.</p>

Scenario C: it could look like...

Mentor (Becky)	Welcome back! Audrey, would you be willing to share how that activity was for you and your partner?
Mentee (Becky)	Vim is so powerful! My dad had me use Vim when I was growing up, so I didn't need to ask for help. I actually thought everyone already knew Vim.
Mentor (Audrey)	<p>Audrey, it's so great that you shared that. I heard you say that you grew up with someone who introduced you to Vim.</p> <p>I had a different experience. At least for me, when I started to program, everything seemed very unintuitive. Plus, my classmates seemed to just "get it," and I really thought I wasn't cut out for CS. It was only later I found out many of my peers had someone they could ask when they got stuck. It can make such a difference, to feel like there is someone ready to welcome you when the computer is just spitting out errors.</p> <p>Would you be willing to share what it was like to be the one helping when your partner was stuck?</p>

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The power of co-mentoring



- Co-mentors offer *multiple* complementary perspectives
 - Mentees are less likely to discount their own possibility of success
- Your co-mentor can help when you get stuck or by “taking the reins”

Balance: with a co-mentor

- First co-mentor:
invite people to share,
then synthesize, and reflect back
- Second co-mentor:
chime in from your perspective



Bibliography

Schunk, D. H. (1987). Peer models and children's behavioral change. *Review of Educational Research*, 57(2), 149–174. <https://doi.org/10.2307/1170234>

Abstract

Reviews the literature on peer modeling among children as a function of model attributes. Similarity between model and observer provides information for gauging behavioral appropriateness, formulating outcome expectations, and assessing one's self-efficacy for learning or performing tasks. Research is discussed on the effects of model age, model sex, model competence, number of models, and model background. Data suggest that peer models can foster diverse types of behavioral change in children, but attribute similarity does not automatically enhance modeling. It is concluded that classroom peers can help train social skills, enhance self-efficacy, and remedy skill deficiencies. (PsycINFO Database Record (c) 2016 APA, all rights reserved)

Beek, G. J. Zuiker, I., & Zwart, R. C. (2019). Exploring mentors' roles and feedback strategies to analyze the quality of mentoring dialogues. *Teaching and Teacher Education*, 78, 15-29. <https://doi.org/10.1016/j.tate.2018.10.006>

Highlights

Combining mentor roles and feedback strategies reveals patterns within dialogues. Mentor teachers often show primarily one mentoring role within a learning dialogue. Feedback provided by the mentor is often positive and non-specific. Promising mentoring strategies failed to focus on progress/discrepancy feedback. Current mentoring practice may improve and thereby teacher training and learning.

Stone, D. & Heen, H. (2014). *Thanks for the Feedback: The science and art of receiving feedback well*. Viking Books.

From the book:

"That's because receiving feedback sits at the junction of two conflicting human desires. We do want to learn and grow. And we also want to be accepted just as we are right now. Thanks for the Feedback is the first book to address this tension head on. It explains why getting feedback is so crucial yet so challenging, and offers a powerful framework to help us take on life's blizzard of off-hand comments, annual evaluations, and unsolicited advice with curiosity and grace."