



Effective Professional Learning across the Curriculum: Facilitating Cross District Technology Coaches' Growth

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Agenda

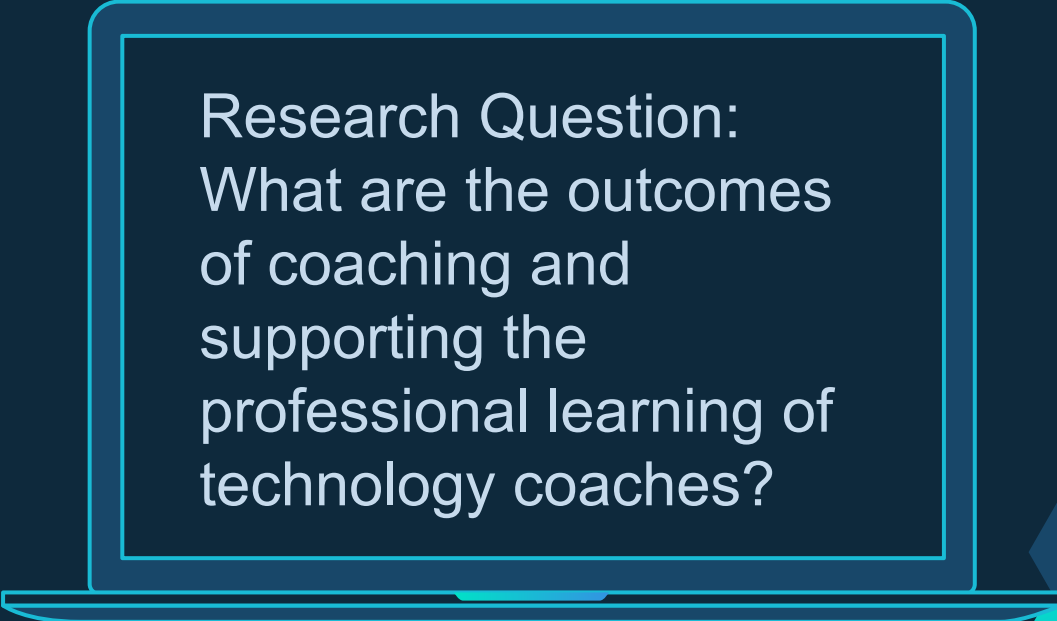
Overview of Project
Background Literature
Participants
Data Collection and Analysis
Results
Discussion
Implications for Practice
and Future Research





Overview of the Project

Describe the experience of 2 technology coaches (K-12 DL and STEM) engaged in collaborative professional learning facilitated by an educational researcher

A stylized graphic of a laptop with a light blue outline and a darker blue base. The screen area is a large rectangle with a thin blue border, containing the research question text.

Research Question:
What are the outcomes of coaching and supporting the professional learning of technology coaches?



Background Literature

Collegial collaboration can support teachers' abilities to enhance their knowledge through critical reflection and goal-directed, self-regulated learning

(Schnellert, Butler & Higginson, 2008; Stephens & Mills, 2014)

Coaching models of PL are premised on building on teachers' existing professional knowledge and working collaboratively to support their self-directed professional growth (Knight, 2009; Stover, Kissel, Haag & Shoniker, 2011)

When PL includes reciprocal interactions like a collaborative apprenticeship, there are enhancements to practice as a function of the modeling, collaboration, and coaching (Glazer, Hannafin, & Song, 2005)



Background Literature

Collaborative communities of practice are particularly effective when a mentor helps to negotiate the interplay of multiple barriers (time, beliefs, access, professional development, culture) for teachers who are learning to integrate technology (Kopcha, 2012; Lowenhaupt et al., 2014; Sugar & van Tryon, 2014).

University faculty partners can effectively collaborate with teachers and school district leaders to integrate technology when PL is premised on coaching to build community, honor pedagogical expertise, and be sustained in duration (Fritch & Wood, 2018).






Participants

**Heidi, K-12 DL
Coach
-shared
perspective on
problems of
practice**

**Tiffany
-met separately
on guided study
of practice and
together to
cross-pollinate
PL**

**Judy, STEM
Coach
-shared
information
about projects
and experience**





Data Collection and Analysis

- ◇ Field notes + audio recordings transcribed (8 meetings)
- ◇ Nodes created in NVivo (QSR, 2015)
- ◇ Clustered and categorized into 3 themes

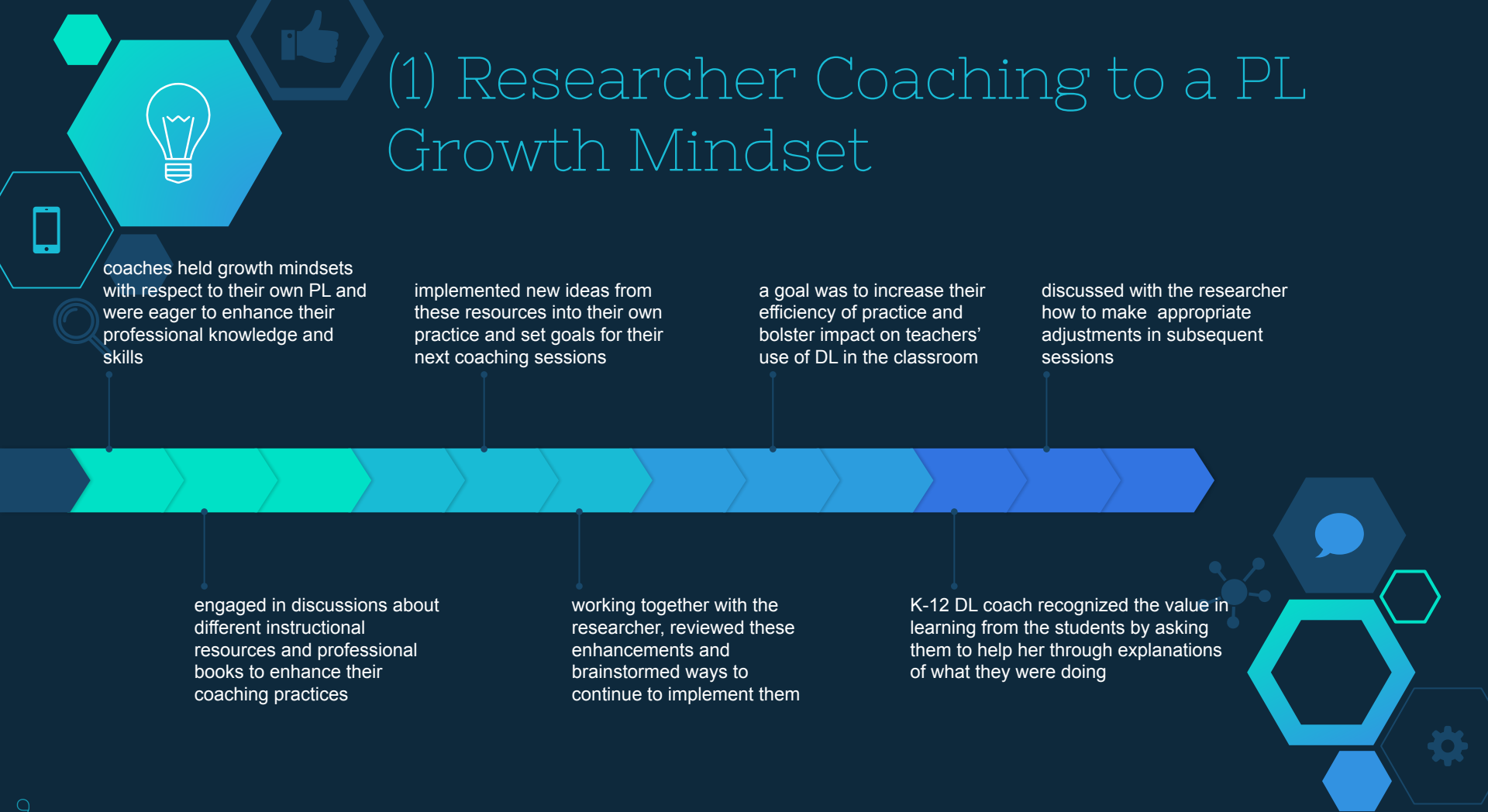




Results

Three themes and excerpted quotes

(1) Researcher Coaching to a PL Growth Mindset





Heidi: Is the listening effective? I mean they [the book authors] are talking about interviewing and things like that, but that's something I realized too - I think that a lot of the times I'm listening [to teachers] but when someone says something, then my brain starts problem solving for them [the teacher] so I really have to work in just listening.

Tiffany: Oh, okay cause you want to?

Heidi: I hear something and then that clicks me off - oh, I know what we can do for that. But then I'm not 100% sure if I have listened completely to the rest of what they've [the teacher] said and I honestly didn't realize this until I was reading [the book] so now I will commit to listening.

Tiffany: So that checklist on page 82, I think if you are ever kind of doing some sort of self-awareness kind of activity, I think you really just need to go here [points to book] as all that stuff is embedded in this set of behaviors.

Heidi: And this table [in the book] anybody can use like even the students can use it.

- Heidi Interview, December 19, 2018

Tiffany: So you might get a couple grade 4 teachers next year you could have them sort of trade off that responsibility [to collaboratively co-plan and co-teach] right?

Judy: Yeah.

Tiffany: ...like collaborate on that, that would be kind of cool.

Judy: For sure.

Tiffany: You have way more ideas than you have time!

Judy: Oh, no kidding.

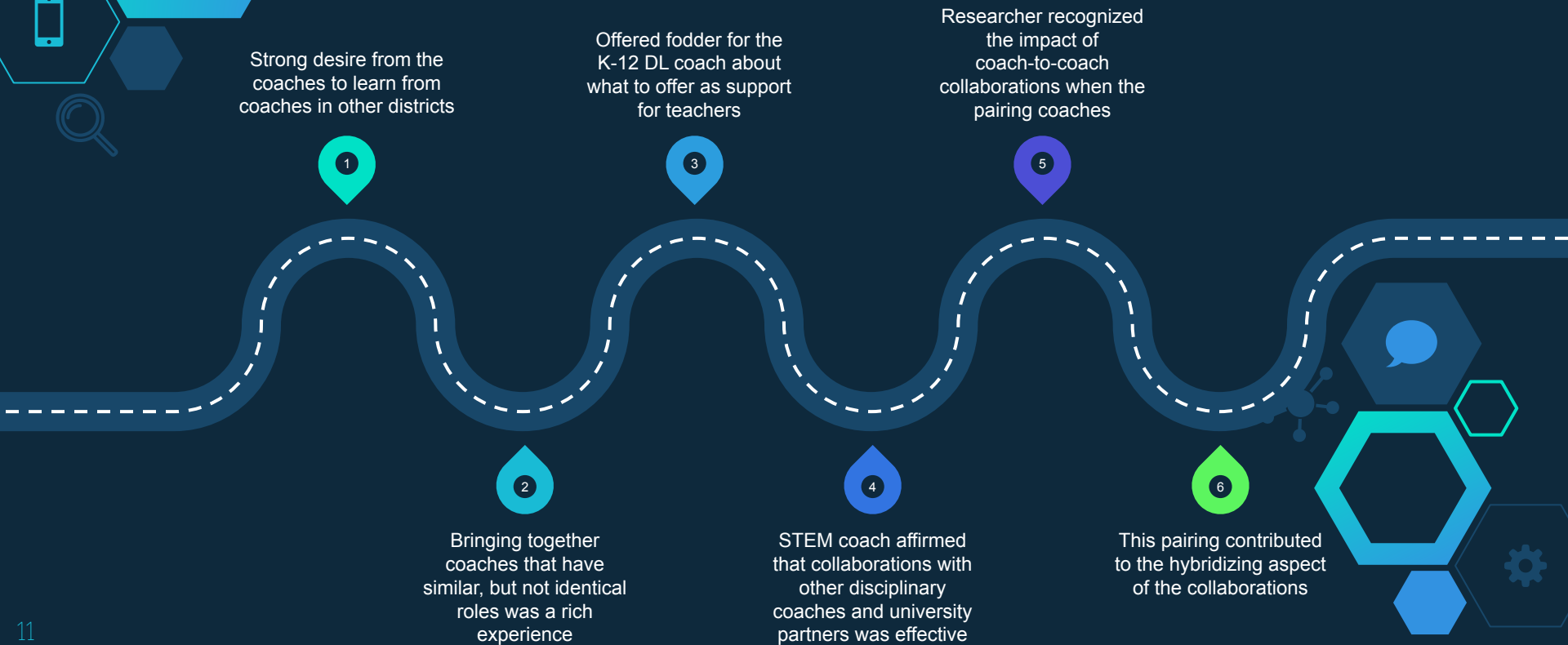
Tiffany: Oh my!

Judy: And I, I'm trying to get better. Yyou have these ideas, write them down, stay focused.

Tiffany: Yes.

- Judy Interview February 12, 2019

(2) Hybridized Coach-to-Coach Collaborations about the Role





Heidi: Judy has such a wealth of knowledge and experience. She is very humble and learning. To hear that she appreciated my ideas as well. Sometimes people talk to you differently because you are new. She was the total opposite. She was very organized and discussed what she did with her board, and the design thinking model. It passed on and moved forward. How can we apply that now? To see how it was successful with them and how we can do that with our board.

Tiffany: She's still available and will continue the collaboration. Now you know what you want to do, now you've got some hope. What you saw her doing, you can now apply.

Heidi: We're not in the same board which is nice, and she has a willingness to share. She was willing to share her wealth of knowledge. I thank you for that connection.

Tiffany: I think it is important for your own professional learning, it should not be an extra for you.

Heidi: It's enjoyable and whole reason for the role. If that means reaching out to other people, well then that's what we need to do.

- Heidi Interview June 11, 2019

Judy: Yeah, the meeting with Heidi was very helpful.

Tiffany: Was it helpful?...I was so worried that you were not benefitting.

Judy: Oh no, no, no.

Tiffany: She said in a text message, 'Oh I hope that Judy, Judy wrote down something, I hope that I was able to give her at least one good idea!' [ins: laugh]...She saw you write something down and I don't know what it was.

Judy: [ins: laugh] Ah and I think I shared something with her, I sent her a QR...You know what, it's not even whether I got something from her or not it's you know what sometimes we need peers to be able to throw ideas around.

Tiffany: Yeah!

Judy: We were throwing some ideas around like Skyping elementary students into high school classes that are on the same topics. We have in our high school someone who is teaching light.

- Judy Interview January 15, 2019

(3) Coach-to-Coach Authentic Discussion about Technology

mutual benefits realized by coaches when engaged in discussions about teaching and supporting teachers' practice with technology

sharing practices, accomplishments, and challenges associated with technology coaching was affirming and buoying

the collaborating coaches were very open to learning through interfacing their knowledge and experience

selectively set goals for practice and bracket priorities for their own districts

fostered a genuinely warm working relationship



Heidi: So, Dash is the same thing we're now working on...I've taken it and shown the kids block coding. Now we're working on what you're saying is the actual activity that we want to match up in the curriculum. So, I look online to see if anybody has done anything because why recreate the wheel?

Judy: Exactly.

Heidi: And borrow from that or I'm kind of coming up with some of my own things...design thinking approach that's what I have to look at. Then green screen that was my other thing, but then you need an app to use it.

Judy: You feel like you're kind of going everywhere.

Heidi: Yeah, we have to be experts at so many different things.

- Heidi & Judy Collaborations December 21, 2018

Heidi: So, I did the same thing with the *Scratch Coding* - we saw some stuff from Science North they are actually the ones who introduced us to what they do up there with the shapes and maps and things.

Judy: Yeah.

Heidi: So I took the Base code and I took that into the classroom and I did that with grade 3 all the way to grade 8 and we extended that and now I'm working on a 2.0. Basically the 2.0 is like the grade fours we're looking at their science curriculum and I show them the base code on how to create the habitat itself and then they will do predator-prey relations. So when the giraffe touches the tree the tree disappears; when the lion touches the giraffe the giraffe disappears; so they are coded.

Judy: And how are you showing them that. What are you doing it on?


Heidi: Scratch.

Judy: Scratch right.

- Heidi & Judy Collaborations December 21, 2018



Discussion




Technology coaches need to nurture meaningful relationships, trust and rapport with the teachers that they support (Lowenhaupt et al., 2014; Skues & Cunningham, 2013); this study found that they need to also have such relationships with other coaches.

The process of supporting teachers to shift their practice to use digital technologies can take up to three years (Skues & Cunningham, 2013)...

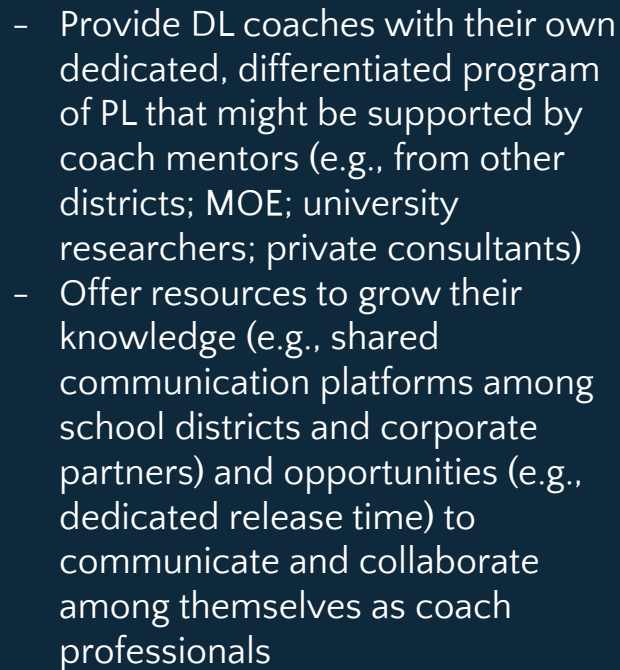
Their role is complex as they support teachers' PL and resolve issues with technology on-site (Sugar, 2015) – the coaches in this study benefited from attention to their own learning by an educational researcher and collaborations with each other.

...this demands that their coaches remain buoyed during this long process and maintain regular communication with teachers (Jacobs et al., 2018)





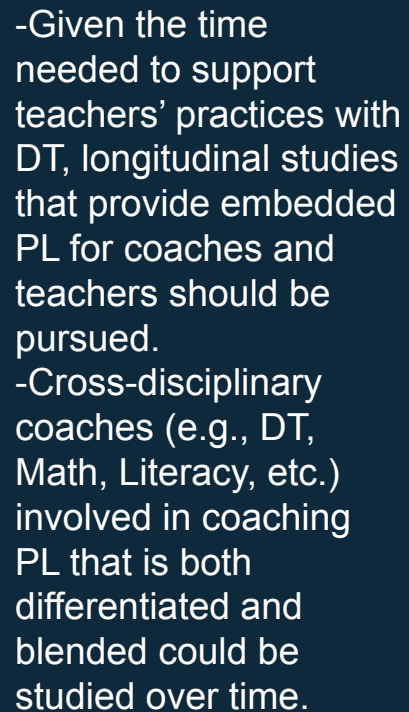

Implications for Practice

- 
- Provide DL coaches with their own dedicated, differentiated program of PL that might be supported by coach mentors (e.g., from other districts; MOE; university researchers; private consultants)
 - Offer resources to grow their knowledge (e.g., shared communication platforms among school districts and corporate partners) and opportunities (e.g., dedicated release time) to communicate and collaborate among themselves as coach professionals





Implications for Future Research

- 
- Given the time needed to support teachers' practices with DT, longitudinal studies that provide embedded PL for coaches and teachers should be pursued.
 - Cross-disciplinary coaches (e.g., DT, Math, Literacy, etc.) involved in coaching PL that is both differentiated and blended could be studied over time.
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Thanks!

Any questions?

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