

TATE Multi-paper: Digital Coaching

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Agenda

- Overview of the Projects
- Background Literature
- Methods, Findings, and Discussion (for each Paper)
 1. The 3 R's of Digital Learning Coaching during a Pandemic: Responsiveness, Resourcefulness, and Relationships
 2. Relationships, Flexibility, Differentiation, Communication, and Coordination: Key Components of Effective Digital Learning Coaching
 3. Common Outcomes: Insights from a Novice and an Experienced Digital Learning Coach
- Implications for Practice and Future Research



Overview of the Projects

Overview

- Research has demonstrated that enhancing teachers' knowledge and providing opportunities to gradually build their instructional capacity may be supported by coaches (Knight, 2009; Lofthouse, 2019), the impact of a technology coach is underexplored
- The burgeoning use of technology to enhance teaching and learning, has educators experiencing increasing difficulty in implementing technology into their practices and classrooms (Lynch, 2014)

paper

3

- The purpose of this paper is to present digital learning (DL) coaches' and educators' conceptualizations of how the DL coach role is enacted

Common Outcomes: Insights from a Novice & Experienced DL Coaches

The Three R's of Digital Coaching During a Pandemic

- As part of a larger study, this paper investigates the experiences of two coaches from two different Ontario school boards, as they forged their unexpected roles supporting teachers, who were engaged in fully implementing online distance learning during the COVID-19 pandemic

1

paper

paper

2

- This paper investigates the impact of differentiated support that elementary teachers received from a digital learning (DL) coach as she defined her role

Relationships, Flexibility, Differentiation, Communication, and Coordination



Background Literature

- Teachers' integration of technology in instruction is complex; it is impacted by potential obstacles including teachers' technological competence, self-efficacy beliefs, and comfort with risk-taking, as well as the availability of effective professional learning for teachers, technical support, and technology resources such as devices and tools for students' use (Alenezi, 2017; Kopcha, 2012; Woo, 2016)
- Technology coaches, who provide classroom-based, individualized, differentiated professional development can support teachers in incorporating technology, as well as provide on-site assistance overcoming technology problems that can otherwise diminish teachers' confidence and willingness to take risks using technology (Nelson & Webb, 2016; Skues & Cunningham, 2013; Woo, 2016)
- Timely in this pandemic era are blended or hybrid solutions to overcome potential barriers to coaching. Recent research (Gregory et al., 2017; Leighton et al., 2018) supports the use of technology (e.g., FaceTime, Zoom, email, video-based coaching) to reduce barriers of time and location proximity, thus enhancing the coach-teacher interaction, leading to changes in teachers' practices
- It is essential for teachers to be actively engaged in authentic learning experiences in a collaborative environment, with guidance, support, and feedback (Ansyari, 2015)



Background Literature

- Benefits have been documented when teachers work together in a community of practice to transfer technology knowledge to instructional integration (Courduff & Szapkiw, 2015) and promote technology experimentation, risk taking and reflection (Sheffield et al., 2018)
- Effective technology coaching requires a coach to be adept at identifying teachers' needs and addressing them in a non-intimidating and respectful manner (Campbell et al., 2014; Sugar, 2005; Wang et al., 2014; Woo, 2016)
- Critical to this is allowing teachers to feel in control of their own learning and self-determine the technology coaching agenda (Giamellaro & Seigel, 2018; Nelson & Webb, 2016; Woo, 2016)



Participants Across Projects

Paper #1

The 3 R's of Digital Learning Coaching during a Pandemic: Responsiveness, Resourcefulness, and Relationships

DL Coach Participant



STEM Coach Participant



Paper #2

Relationships, Flexibility, Differentiation, Communication, and Coordination: Key Components of Effective Digital Learning Coaching

DL Coach Participant



Teacher Participants (n= 41)



Paper #3

Common Outcomes: Insights from a Novice and an Experienced Digital Learning Coach

Experienced DL Coach Participant



Novice DL Coach Participant





1

The 3 R's of Digital Learning Coaching during a Pandemic: Responsiveness, Resourcefulness, and Relationships

Arlene Grierson (Brock University)

Tiffany Gallagher (Brock University)

Rachel Sulisz (St Hilaire; Brock University)

Christina De Silva (Brock University)



Context & Research Question

Context

- Never before has this role in education been more integral; teachers need the technological skills required to facilitate student learning in pandemic distance education contexts as well as within traditional face-to-face classrooms

Research Question

- How do two coaches from two different Ontario school boards, forge their unexpected roles supporting teachers within their school boards, who were engaged in fully implementing online distance learning during the COVID-19 pandemic and what factors affect their abilities to do so?



Methods

Research Type

Qualitative Case Study (Merriam, 2009)

Participants

Helen- Digital Learning Coach, School Board A
Jamie- STEM Coach School Board B

Data Sources

Individual 60 minute interviews
- Transcribed & Member-checked

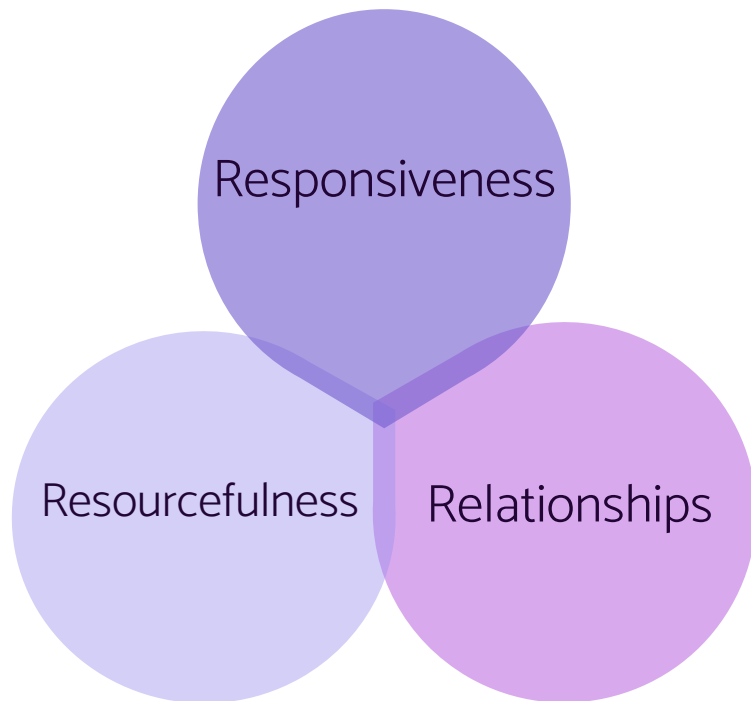
Data Analysis

Coding and categorizing as described by Creswell (2013)



Findings

Three interconnected themes were found:





Finding 1- Responsiveness

- Both coaches were extremely responsive and worked tirelessly to support the unprecedented situation of transitioning all teachers within their school districts from face-to-face to online distance education

March break hit and all 1200 teachers needed help... Every single person needed you. It felt good because you are needed but we are answering emails 24/7... It has been non-stop.

Helen Interview June 9, 2020

- The coaches were charged with supporting teachers, students, and students' parents as they moved to using digital tools and platforms for all learning experiences
- In some cases, teachers, students, and/or parents had little, if any prior experience using these tools and platforms, and lacked confidence and competence doing so
- These coaches successfully responded to teachers' needs and mentored them by using digital tools like FaceTime and Zoom meetings

My biggest challenge is getting people up online, then my biggest accomplishment is getting everyone online.

Jamie Interview June 8, 2020



Finding 2- Resourcefulness

- Meeting teachers' needs and those of their students necessitated procuring a plethora of resources such as devices, software, as well as teacher access to and licenses for use of publisher developed materials
- Coaches were resourceful and undertook unusual roles; securing copyright from publishers, scanning textbooks, & assisting parents with device access and troubleshooting
- Both coaches also assumed leadership roles in the development of webinars for teachers' PD, and expanding their board shared learning material platforms, as a wide-ranging repository for system-wide teachers' use

We wanted a spot to share everything...So people could come in and get right on to that. It was linked to our board webpage. How do I support my class? It links to videos and resources...they were all put here together. We had it before, then we had it supersized.

Jamie Interview June 8, 2020



Finding 3- Relationships

- Teachers quickly developed trusting relationships with these coaches and turned to them for support
- In addition to providing technology assistance and resources, both coaches provided emotional support for teachers who also needed a nonjudgmental listener with whom to share their trepidations and frustrations

Just trying to calm them down and get them to realize that it's going to be okay.... I listen to a lot of people just talking through their feelings and trying to wrap their minds around what they're trying to do and trying to help them with their classroom

Helen Interview June 9, 2020

Sometimes teachers need someone to talk to...People know you and start to trust you. So, I think that has been a huge change, realizing it is not the PD piece. You have to be there to listen too.

Jamie Interview June 8, 2020



Conclusions

- **Technology coaches may be regarded as essential educational workers in this pandemic era**
- Consistent with recent research (Leighton et al., 2018) the use of technology (e.g., FaceTime, Zoom) reduced barriers of coaching time and location proximity, leading in this case to system-wide changes
- Teachers' need for the support of these coaches appeared to fast-track their development of trusting relationships with them, which otherwise may have taken considerable time to develop
- Funding for supporting teachers' digital instruction through the provision of coaches, was well worth the investment of these school boards
- Findings reveal the integral role of these coaches, whose **responsiveness, resourcefulness, and relationships were the 3 R's of digital learning coaching during a pandemic**



2

Relationships, Flexibility, Differentiation, Communication, and Coordination: Key Components of Effective Digital Learning Coaching

Tiffany Gallagher (Brock University)

Arlene Grierson (Brock University)

Rachel Sulisz (St Hilaire; Brock University)

Christina De Silva (Brock University)



Context & Research Question

Context

- This was the third year of a study investigating the impact of differentiated support that elementary teachers received from a digital learning (DL) coach as she defined this role

Research Question

- What are the essential components of a DL coach's role in providing differentiated professional learning for teachers with educational technology integration?



Methods

Research Type

- Qualitative
- Gathering data on PL over one school year from coaching in the integration of educational technology into literacy instruction

Participants

- Helen: Digital Learning Coach, School Board A
- 41 elementary teachers

Data Sources

- 71 Classroom Observations and Meetings
- 8 Teacher Interviews
- Coach Interview (transcribed & member-checked)
- Artifacts (resources; slideshows, etc.)

Data Analysis

Coding and categorizing (Creswell, 2013) using NVivo program (QSR International Pty Ltd, 2015)



Findings

Four overarching themes:

- 1) Relationship Building Between Coach & Teachers
- 2) Flexibility in the Coach's Role
- 3) Differentiated Professional Learning for Teachers
- 4) Acknowledge Coach's Purpose and Maximize Role



Finding 1- Relationship Building between Coach and Teachers

- The DL coach recognized the integral need to build, foster, and maintain collegial relationships and trust with her teacher colleagues; this was a genuine priority for this coach
- Her sincerity and dedicated time to build these relationships was integral to the success of their interactions
- She viewed this as an investment in the long-term impact of her coaching
- The DL coach was modest about her abilities to teach with technology and did not allow herself to be known as the “expert” but rather as a teacher helping out another teacher
- She brought to her coaching role other life and classroom-based experiences which made her relatable to her teacher colleagues.

As we are leaving the class Helen debriefs with the teacher about how it the lesson went and how well they worked collaboratively together in a team. She also did some quick planning on what to do next time she is in. This whole conversation took 30 sec. and was essential.



Finding 2- Flexibility in the Coach's Role

- The DL coach was well-versed in knowing how to approach each class individually to best suit each teacher and their students' needs
- She was able to adapt and accommodate to instructional requirements, grade, age, and skill levels
- This flexibility and accommodation in coaching originated from strong interpersonal skills and the ability to take the perspectives of the students and educators
- She often reversed roles with students asking them to help her through explanations of what they were doing, as well as scaffolding their work together

She can run an intermediate classroom, so I was curious to see how she would do [in kindergarten]. But she gets down to their level, she's in there with them.. She was very kid-friendly, she made it relatable to them so they would understand what it meant. If they're stuck on a website, she gets down on the floor and helps them problem solve. She's really good in that aspect".



Finding 3- Differentiated PL for Teachers

- The DL coach recognized that the process of coaching by supporting teachers needed to be appropriately paced to ensure that teachers were retaining new learnings and practices
- She appreciated the amount of scaffolding was dependent on the teacher's technological pedagogical skills and willingness to change practice
- She was committed to seeking out new knowledge when she did not know something, always willing to share this knowledge with others
- Teachers perceived her as a coach/mentor as she helped teachers in the "here and now", which helped build teachers' knowledge with DL usage
- The teachers also cited that the coach's support enabled them to invest time into new ideas and teaching directions; they saw the utility of what they were learning for their teaching in future years
- Teachers also noted improvements in their students' work from using DL

At recess and Helen and I talk about different needs in different schools...Helen talks about the workshops that she has been to recently on D2L and the new portfolio workshops for the Kindergarten teachers. They will all be in "Brightspace" for this but $\frac{1}{4}$ of the teachers in [the school board] don't have the tablets to use to do the pedagogical documentation. She says that she sits at these workshops thinking: 'The questions you ask are who has the technology? who will be receptive; who will sustain the work? who has the ability to sustain the work?'



Finding 4- Acknowledge Coach's Purpose and Maximize Role

- There were times when the DL coach adopted the role of classroom teacher, modelling pedagogy for the host teacher and exemplary instruction for students
- This occurred often as some teachers still approached DL in the classroom with a degree of apprehension
- The greatest impact was realized for those teachers that collaboratively participated in co-teaching with their coach
- In some school sites, the coach began to recognize the positive change in teachers' practice where there is sustained support for more than one academic year
- Challenges to the role include a lack of communication and coordination between coaches across disciplines; this is needed to express a consistent message to teachers and make an impact on their professional learning

I think working with Helen, it's always pretty wide open. We give them [the students] a very [basic] introduction to it and allow them to go their own way. Even for the workshop she ran, they are always experimental based. It gives you a brief introduction and lots of experiential learning time to try it out. I always found that the workshops she does allows you to easily transfer it efficiently into my classroom.. It translates to the kids and they take control over it. I still know very little about robotics or coding and building, but the students, they roll with it. They teach each other and teach me. They know much more and they take it further.



Conclusions

- Establishing the **role and scope of practice** for the DL coach is essential to ground meaningful relationships with teachers (Skues & Cunningham, 2013) and **meaningful relationships** are integral to the coaching enterprise (Lowenhaupt et al., 2014)
- The DL coach role is often **twofold**: support teachers' professional learning and resolve issues with technology on-site (Sugar, 2015)
- A significant amount of support is needed for **meaningful** technology integration (Lewis, 2016)
- Teachers who receive mentoring on technology **improve** in its use, **navigate** usage barriers (Kopcha, 2012) and have **positive self-efficacy** (Hammond & Moore, 2018)
- This process can take up to three years (Skues & Cunningham, 2013)
 - ◆ Teachers need **sustained** coaching to make shifts in their practice to use DL with ease and confidence



3

Common Outcomes: Insights from a Novice and an Experienced Digital Learning Coach

Rachel Sulisz (St Hilaire; Brock University)

Heidi Poltl (Niagara Catholic District School Board)

Tiffany Gallagher (Brock University)

Arlene Grierson (Brock University)

Christina De Silva (Brock)



Context & Research Question

Context

- One novice and one experienced DL coach each supported elementary educators over the course of eight months through planning and co-teaching sessions
- The coaches adopted different orientations (i.e., design-based research framework; on-demand, teacher self-directed) in working with their educator participants

Research Question

- What are the essential learnings of a novice and an experienced DL coach as they supported educators' professional learning (PL) of technology integration?



Methods

Novice DL Coach

Research Type

- Qualitative

Coaching Model

- Design-Based Research (DBRC, 2003) of iterative cycles of tech support, implementation, and reflection

Participants

- 2 Kindergarten teachers
- 2 Early Childhood Educators

Data Sources

- Fieldnotes of 17 meetings and observations of educators implementing technology enhanced reading lessons
- Pre- and Post-Surveys
- Pre- and Post-Interviews

Data Analysis

Coding and categorizing (Creswell, 2013) using NVivo program (QSR International Pty Ltd, 2015). The results of the two studies were compared and findings were extracted to illustrate each common theme extracted from raw data

Experienced DL Coach

Research Type

- Qualitative

Coaching Model

- Rotating to elementary schools and providing on-demand support & teacher self-directed

Participants

- 18 elementary teachers

Data Sources

- Fieldnotes of 16 classroom coaching sessions
- Artifacts (e.g. instructional resources)
- 3 teacher Interviews
- Coach Interview



Findings

Four overarching themes:

- 1) Relationship Building and Anticipating Educators' Needs
- 2) Differentiated PL for Educators
- 3) Flexibility and Problem Solving in the DL Coach Role
- 4) DL Coach's Role in Gradually Releasing Responsibility



Finding 1- Relationship Building and Anticipating Educators' Needs

- The coaches both recognized the integral need to build relationships and trust with their educator participants
- An essential skill that both coaches demonstrated was creating, fostering, and maintaining these collegial relationships; the experience of fostering strong relationships with the educators was an investment in the long-term impact of coaching
- An initial, integral part of both coaches' support included anticipating educators' PL needs, roles, and their prior knowledge

Novice Coach

I love what we've done and having you here has been a huge help. We would not be anywhere near where we are if we didn't have you guiding and helping us with it. The whole process has been great.

Experienced Coach

Heidi seems to create a lasting impression on her colleagues – this one compliments her for spreading her knowledge of technology to other teachers in the board now.



Finding 2- Differentiated PL for Educators

- The coaches recognized that the process of supporting educators should be appropriately paced to ensure retention of new learnings and practices
- When working through the technology implementation steps together, it is important for coaches to validate educators' needs and differentiate for them, through one-on-one instruction
- Coaches also need to adapt assessment and instructional methods to meet the distinct learning needs of students in an educator's class

Novice Coach

Riley told me that after their lesson that both her and Scarlett have breaks. ... I said I could stay and help them make lessons. I walked them through step-by-step how to do a pre-made matching activity with SMART Lab Activities. Riley took extensive step-by-step notes and Scarlett followed along step-by-step on her laptop, which has the trial version of SMART Notebook. Afterwards, they had 10 minutes left, so I let Riley try to follow her notes and create a matching lesson using my laptop.

Fieldnote, Dec 19, 2018

Experienced Coach

He is very savvy and only wants clarification on a few features. They don't seem interested in the Grade 8 software that Heidi wanted to show them. Is she pushing an agenda? [Teacher] is not as savvy and they are not on the same page as Grade 8 teachers, yet get along very well. Heidi will need to really differentiate this coaching.

Fieldnote, Oct 26, 2018



Finding 3- Flexibility and Problem Solving in the DL Coach Role

- The coaches were well-versed in approaching each classroom individually in order to best suit the educator's and their students' needs
- Both coaches often engaged in self-determined problem solving when issues arose (e.g., accommodating technological constraints at school sites)
- This flexibility and accommodation in coaching originates from strong interpersonal skills and an ability to take the perspectives of the students and educators

Novice Coach

I set up and explained guided access for all the iPads in both Kindergarten classrooms. I left notes on their desk on how to set it up, enable it, and disable it. The teachers were amazed by this and very thankful.

Fieldnote, Oct 24, 2018

Experienced Coach

This is an example of Heidi's flexibility to work with any staff with any type of need in the moment. I wonder how principals get tech support otherwise? It seems as though they have to learn through osmosis when it comes to their own professional learning.

Fieldnote, Jan 28, 2019



Finding 4- DL Coach's Role in Gradually Releasing Responsibility

- Often times both DL coaches adopted the role of classroom teacher, modelling pedagogy for the host educators and exemplary instruction for the students
- The greatest impact was realized for educators who collaboratively participated in co-teaching with their coach
- Coaches noted that providing educators with the knowledge and resources to mitigate barriers is important in their PL journey to become autonomous users of technology in their practice

Novice Coach

I think at the beginning, again it's me not wanting to push forward on my own, but needing somebody... all my lessons were exactly the same, up until the halfway mark there. I needed that [repetition] to figure out what was happening and then seeing that you know, then you could open my mind up to other areas that I could move onto.

Experienced Coach

We have that new portfolio that was introduced while I was away, Heidi did a model with me as if I was a student and she was the teacher. So that way I could roll it out in the classroom, which was so helpful. So that extra support from Heidi, instead of spending after hour time. She just came right to the classroom to do it with me.



Conclusions

- The findings presented here are particularly robust given that they are derived from two independent studies of DL coaching
- For the educator participants supported by these DL coaches, there is evidence of pedagogy shifting from a traditional delivery mode to a technologically enhanced delivery mode; this demonstrates the transfer of practice from PCK to TPACK (Mishra & Koehler, 2006)
- Coaches providing reiterative cycles of support for educators to enhance their practices with technology aligns with the Gradual Release of Responsibility framework (Pearson & Gallagher, 1983)
- As explained by Fisher and Frey (2008), “the framework purposely shifts the cognitive load from teacher-as-model, to joint responsibility of teacher and learner, to independent practice and application by the learning” (p. 2)

Implications for Practice & Future Research



Implications for Practice

Paper #
1

- Here, both coaches exemplified outstanding responsiveness and resourcefulness as they supported teachers, students, and parents! While some their tasks may have differed as a function of the pandemic, responsiveness and resourcefulness are of significant importance in coaching practice.
- Coaches had to fast-track their development of trusting relationships with the teachers, which otherwise may have taken considerable time to develop
- The school board funding to support teachers' implementation of digital instruction through the provision of these coaches, was well worth the investment
- Coaches have integral roles whose responsiveness, resourcefulness, and relationships were essential to the digital learning coaching that happened during a pandemic - in essence, they were essential education workers!



Implications for Practice

Paper #
2

- Coaches need time to develop rapport with the teachers they are working with
- Dedicated resources should be allocated to this
- Classroom teachers should be strongly encouraged to engage in actively co-teaching with their coach
- Administration, down to the school level, should support and be consistent in messaging about the role of the DL coach, as enacting change in instructional practices is a complex process (Sheffield et al., 2018)



Implications for Practice

Paper #
3

- Barriers to technology integration can be mitigated by:
 - Ongoing professional learning and support
 - Technology-specific training
 - School board support
 - Collegial collaboration
 - Self-determined professional learning



Implications for Future Research

- Conduct timely research, given that the technology and the world are changing rapidly and educators are required to stay current in order to prepare students for learning in a technologically connected reality (Caena, 2011)
- Conduct longitudinal research following coaches as change in teacher practice from coach support can take up to 3 years (Skues & Cunningham, 2013)
- Conduct research involving cross-district coach collaboration and support, as research in this area is limited
- Study the DL coach role in relation to theories such as TPACK, SMAR, or Gradual Increase/Release of Responsibility to position the breadth of their work and offer implications for transfer to work of other coaches

THANK YOU!

Contact for more Information

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