

## **W8: Final Report**

# **Empowering K-12 teachers in professional development through a participant-driven learning experience**

## **Introduction**

Have you ever had a teacher who made a profound difference in your life? One or two educators, in the 12 or more years that you were a student in a classroom, might stand out to you because of the passion they showed for the subject being taught, the energy they put into their instruction, or the amount of heart they showed in caring about you as a student. Teachers have a profound impact on those that they teach, with the power to influence students' academic performance, attitudes, and engagement (OECD, 2005); in reading and math, teachers have two to three times the impact of any other factor on student achievement (Rand Corporation, 2012). And many of us can anecdotally attest to the importance and impact of a teacher, for better or for worse. It is for this reason that it is imperative that we support teachers in their work; professional development (PD) programs are one way in which we can help educators do the best possible work in their teaching context. Ultimately, such PD will also support youth and provide them with a stronger educational experience as they move towards

post-secondary paths and careers, where they are positioned to create societal change on increasingly larger stages in whatever industry or discipline they pursue.

Strong PD has been demonstrated to reduce teacher attrition rates (OECD, 2005) as well as developing teachers' knowledge and skills, improving knowledge base to support teacher policy, and making teaching an attractive career choice. Whether an after-school workshop, a full-day experience, a conference session, or teacher camp, all PD has the common element of supporting teachers in their professional growth. This "growth" takes many forms, but most educators and administrators would agree that PD plays an important role in the ongoing trajectory of any teacher's career; time for PD is embedded into school calendars with the aim that knowledge, skills, and/or attitudes are acquired that will gradually improve or deepen a teacher's instructional practice year over year. Some PD focuses on the teaching profession itself and pedagogical approaches, others will focus on specific knowledge or skills (e.g., a new technology platform, or a specific activity) that teachers can bring into their instruction. Borko (2004) defines the professional development system or context as consisting of teachers (i.e., participants), facilitators, and the PD program itself. In this action research, an intervention is proposed that focuses on shifting the PD program such that power is shifted more from the facilitator (where it has traditionally been held) to participants, in order to create a more engaging model of PD, regardless of what content is being addressed in the session itself.

The shift that is presented in this paper is focused on the delivery model of teacher PD, but with its focus on relationships, continuous engagement, and building

competencies for peer-to-peer learning, the approach presented can be applied to other situations in which a single facilitator is driving a process. The power differential this creates is something that the participant-driven model being proposed strives to disassemble. Any situation in which people are learning would benefit from the application of the participant-driven framework introduced here, as it empowers participants to take charge of their learning. While the examples and use cases presented here are all connected to PD for K-12 classroom teachers, the model itself has greater applicability beyond just teachers, which is further explored in Future considerations & next steps (see final section of paper).

### **Why PD?: my personal connections**

In addition to the academic rationale for creating strong PD initiatives for teachers, I have a personal interest in building better models of PD. As a facilitator of teacher training in various forms for the past eight years, I recognize an inner drive both to find more innovative ways to do my work, but also to better meet the needs of participants in my PD sessions. The bulk of the sessions I have delivered over these years has been through large-scale educational conferences, which are typically 1-3 day events that bring together teachers within a particular geographic area. Within these conferences, speakers are allotted blocks (typically one hour) to address a particular topic or theme. Operating within this construct, I realized that such conference sessions were more like performances for me (as facilitator) than the interactive, knowledge-sharing experiences I wanted them to be. Further, no matter how entertaining or engaging my talks might be, I had no way of assessing the lasting impact

of the content I was delivering. I can only assume, based on my own experiences as a former teacher attending PD sessions, that the impact is minimal when there is no accountability afterwards to ensure changes are made. It was also disheartening to deliver a “rinse and repeat” model of PD that ironically was counter to many of the concepts I would talk about, such as providing opportunities for student play, building competencies such as communication and collaboration, and creating flexible learning environments that permit student choice. Standing at the front of the room, lecturing about pedagogy, I felt that the image I was painting as a facilitator was the *opposite* of leading by example. I wanted to change this model and step away from the podium; I felt part of this would be forming relationships with participants (as opposed to lecturing them), and also helping them to connect with each other (rather than passively sitting as individuals). I wanted to do PD differently.

Because of this experience, and coupled with my own curiosity about how PD is done in different contexts, over the past year I have started to explore both why PD is so critically important but also how we build effective models of delivery, and what content needs to be embedded for impactful learning. Through this process, I came to understand what the shift in PD delivery I was seeking might look like.

### **Background: how does PD work?**

Learning is a part of being human; in the context of our careers, professional development is something that many jobs encourage in order to build individual and group skill sets, enhance team dynamics and functioning, and address specific areas of knowledge needed to advance one’s work. In the context of K-12 education, PD takes

many forms. Because of limited time and school or district budgets, many teachers' PD has traditionally been limited to annual teachers' conferences, where one-hour workshops or lectures about specific topics are the norm. The conference model is efficient and a good way to bring together a large number of participants and facilitators in a central location; likely because of this efficiency, it is the model I am most familiar with and what I found myself struggling with as I became more familiar with delivering PD. In addition to conferences, most teachers also participate in professional development days dispersed throughout the school year, which can range from focused events hosted by external groups to school-wide workshops to opportunities for teachers to pursue their own area(s) of interest. Depending on the scenario, this means that teachers in any given PD environment are likely to have at least one thing in common: geographic location (e.g., same school or district), grades taught (e.g., elementary school teachers), or subject area interest (e.g., computer science and technology). However, having one thing in common means there is still extreme diversity among participants, particularly with regards to past experience both in the classroom as well as with the topic(s) of interest. Meeting diverse needs through differentiated instruction or allowing multiple entry points to a PD session, much like the scaffolding teachers might hope to use when creating their own lessons for students, is much harder in a lecture or facilitator-driven approach. Rather than PD being exciting and invigorating, it can be seen as a passive or boring experience when delivered by a facilitator in the one-size-fits-all model offered by the one-off conferences, events, or single days that lack follow-up support.

Like any form of learning, PD needs consideration for how humans learn. The National Academies of Sciences, Engineering, and Medicine (2018) address how motivation for learning, reasoning, cognitive abilities, and learning environments shift from childhood through to adulthood; as facilitators of PD, it is important to be cognizant of how we are structuring PD programs that will resonate with participants and play into what motivates them to take part in the learning experience. For example, “[participants’] motivation to use their vast repertoire of skills, help others, and preserve their resources and sense of competence tends to increase with age” (National Academies of Sciences, Engineering, and Medicine, 2018). This type of motivation fuels the participant-driven framework proposed in this research - putting emphasis on the knowledge and skills that participants show up at PD with already, encouraging peer-to-peer learning rather than facilitator-to-participant instruction, and fostering continuous engagement.

### **Elements of a PD program**

Several studies have attempted to identify what the most important elements or factors are in creating and delivering PD for K-12 teachers. For example Garet et al. (2001), through a large-scale sampling of teachers, found that PD with sustained and intensive interaction over time had more impact than shorter experiences, that focusing on active hands-on training with relevant integration into classroom instruction (i.e., coherence), and focusing on academic content provide the best results. The Garet et al. study also found that “reform” activities (i.e., not facilitator-driven or traditional approaches) had better results with teachers because they are delivered in longer

duration, with collective participation, and with a focus on core features of content, active learning, and coherence.

A more recent study by Stedrak et al. (2013) also identified multiple points of connection and/or PD that is sustained in its delivery (versus a one-time delivery model) is the most likely factor in improving teacher PD. Active learning is again repeated as a key element, particularly when introducing PD for technology, which lends itself particularly well to hands-on learning. Reforms to PD to address this need for repeat engagement are called for.

Richardson & Maggioli (2018) present a compelling model for PD in which inspiration (of the individual participant) is placed at the centre of all learning, with the elements of being impactful, needs-based, sustained, peer-collaborative, in-practice, reflective, and evaluated surrounding this inspiration. Of these indicators, peer collaboration is listed as the highest indicator of PD effectiveness. So how do we as facilitators intentionally redesign PD with such elements in mind? Evidence would seem to highlight some of the essential ingredients for PD, and yet there is not yet widespread adoption of these elements - perhaps because the *how* is not being addressed adequately. Facilitators may recognize that active learning or inspiration, for example, are important - but there are not necessarily instructions for how to create that in a session with K-12 teachers. Further, finding ways in which to address these elements within diverse environments is important for adaptability - and the reason for creating the participant-driven framework, which has principles that apply to educators across subjects and grades, whether in urban or rural settings. One goal in creating this

framework was to bring together evidence-based “best practices” that would present both the theoretical pillars for empowering participants in driving their learning, as well as tangible suggestions for *how* to achieve that theory - i.e., how facilitators might begin to cede some control in their PD to create space for the collaboration, hands-on learning, peer support, and other factors that have been shown to result in stronger PD when compared to “traditional” approaches.

### **Examples of reform in PD**

The traditional form of PD, which is a more lecture-style focused on an expert facilitator delivering knowledge, is something that has been seeing reform in recent years. Many examples of alternative approaches to PD, building on the recommendations of studies such as the ones mentioned above, have attempted to create opportunities for ongoing engagement or collective participation. One such example can be seen specifically in PD for educational technology (which is the realm that I am currently working in). Particularly with technology, there is often a perceived need for a facilitator to give step-by-step instructions about how to use and implement a particular piece of tech; PD sessions can often involve participants sitting and following along while they are walked through setup and some basic activities. In sessions that I have co-facilitated, what I have observed in this case is that some participants are very invested and follow along well, other participants are not seemingly that engaged but still following along, and then a significant number of participants fall behind in instructions (whether due to disinterest, distraction, or misunderstanding) and then become completely disconnected from the remainder of the activity. It is specifically this



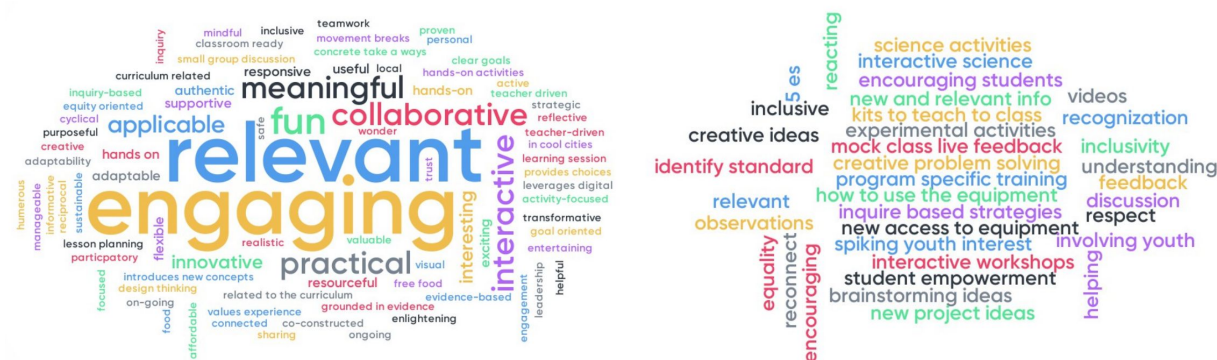
type of dynamic that a reform in PD might address; how might participants be empowered with a self-paced, self-guided exploration of a PD topic such as educational technology? With some restructuring (e.g., providing written or video tutorials, creating “streams”, setting up peer support or small group instruction, etc.) the disengaged participants might not experience the same disconnect when they “miss a step” that then compromises their learning. The difference between the traditional approach and the proposed one is that in the latter, participants are empowered to drive their learning experience and there is flexibility rather than rigidity in the environment (i.e., moving away from the one-size-fits-all instructional model).

McNiff (2010) and Trust (2019) both advocate for an active role of PD participants in their learning experience, presenting a case for the dismissal of a hierarchy in which facilitator or instructor is the sole authority or holder of knowledge, and emphasizing peer-to-peer knowledge sharing and learning that occurs together, in collaboration. For example, the “unconference” model of workshop requires the organizer to relinquish control over content and permit space for emerging themes and ideas, based on the attendees’ interests, to be the focal point (Budd et al, 2015). This is not to say that the unconference does not have a guiding mission, but rather that participants’ thinking is driving the planning and execution of the event (rather than this control being held by the facilitator). Among the education community, “Edcamps” are becoming increasingly popular as an alternative to more traditional PD; Edcamps are modeled after the unconference style as well. Carpenter (2016) states how participant autonomy is an attractive feature of Edcamps, particularly in terms of taking charge of

what content and connections participants might make. However, it is also important to note that this study identified a learning curve for the new approach to PD, and an orientation session to the Edcamp style was suggested as one means of supporting teachers who may be used to a more traditional style of PD.

### The intervention: what needs to shift?

In January 2018, I asked a group of 30 educators to define “what makes great PD”; two months later, I also invited a focus group of 12 high school students to answer the same question, putting themselves in the shoes of their teachers. The word clouds generated by their responses are below (see Figure 1; note that the larger the font, the more frequently that response was given by participants).



**Figure 1.** At left, the responses to the question “what makes great PD?” as answered by 30 K-12 educators from across Canada. The word cloud on the right is the same question posed to 12 high school students from Ottawa, Canada.

The top response from the educator group, which was echoed in similar ways within the student group, was “engaging” PD. Many of the supporting responses to this

question shed light on what might create this engaging experience; the words focus on connections and relationships. It was partly driven by this feedback that I envisioned a new way to deliver K-12 PD, one that takes the focus away from the facilitator and turns it towards participants.

Many current PD approaches (including many of my own sessions) have focused on a single facilitator “expert” creating an agenda through which they guide participants; this traditional model will be referred to as a facilitator-driven model. This facilitator-driven approach lacks engagement potential and is not particularly innovative; however, it is efficient and there is security for the facilitator in terms of controlling the learning trajectory of participants and the desired conversations and explorations. However, if participants are at the heart of PD work - that is, if we as facilitators are looking to provide participants with the best possible experience - a shift to a participant-driven model of PD is proposed. This participant-driven model would foster stronger relationships both between facilitator and participants as well as among teacher participants; provide the opportunity for participants to support and teach each other, resulting in broader and more diverse learning experiences; enhance self-confidence and ability to generate and share knowledge among the group; and support continuous learning beyond the scope of the single PD session. Building on the other examples of participant-driven PD previously described, this research aims to present a framework that draws on best practices from several of these approaches and can be applied in diverse contexts.

## **The intervention: who is involved?**

Creating meaningful, scalable change in a PD model is impossible without involving constituents and influencing stakeholders. In particular, implementing such a model requires cooperation among multiple actors; positive uptake of the model will result in growth and improved teacher experience in their PD offerings.

In creating this model and identifying the key components of a participant-driven approach to PD, an early group of constituents involved were fellow facilitators of teacher PD. Some of these educators were also interested in (or actively experimenting with) shifting activities within their sessions to be more participant-driven, and we were able to share ideas and best practices through this collaboration. In particular, the key concepts of online professional learning networks (PLNs) and sharing circles as part of the proposed intervention came directly from PD facilitators as constituents in this work. The PLN concept as a critical element for a participant-driven approach to PD was first introduced to me in conversation with Torrey Trust (who further has published on this topic, see Trust (2019) and Trust et al. (2016)). PLNs, which by definition are networks of professional educators sharing resources and support with each other, put onus on teachers to seek out connections and be self-driven in terms of sourcing content to help further their own learning (rather than relying on a facilitator, for example, to deliver that content to them). Sharing circles, as another key element in facilitator-driven practice, was something that I experienced for myself as a participant in a PD session for Indigenous engineers and educators. Creating a physical space for sharing personal stories and connections at the outset (and possibly closing as well) of a session helps to

foster trust with other participants - which can lead to deeper conversations, and sharing of knowledge and skills beyond the circle. This is the type of relationship-building that I was seeking when I first sought out a shift in PD; building dialogue among participants is key to dismantling a facilitator-participant hierarchy in which the facilitator is viewed as the keeper of knowledge. The elements of PLNs and sharing circles would not have been made so obvious to me without the support of constituents.

Active classroom teachers (i.e., PD participants) were also involved in this project; their feedback on the implementation of the model will be critical, but having their input on the model development was also important. Participants are able to candidly share what has worked and what has not in the various sessions they have attended over the years of their teaching career, and carry a different perspective than the facilitator of a PD session. Teachers can also share their wants and desires for an ideal PD session, many of which stemmed back to a desire for increased control over their learning experience as well as flexibility in how material is delivered. The guiding principles of the participant-driven PD framework, such as peer-to-peer support and collaboration, both synchronous and asynchronous communication, and flexible content derive from the involvement of teacher constituents.

The third constituent group is that of school administration, who can be both gate-keepers to their staff's PD (i.e., identifying and approving what opportunities their teaching staff might participate in), but who are also frequent participants in PD themselves. The voices of administrators (including principals, vice/assistant principals, and district coaches and specialists) are important, because they are often informed by

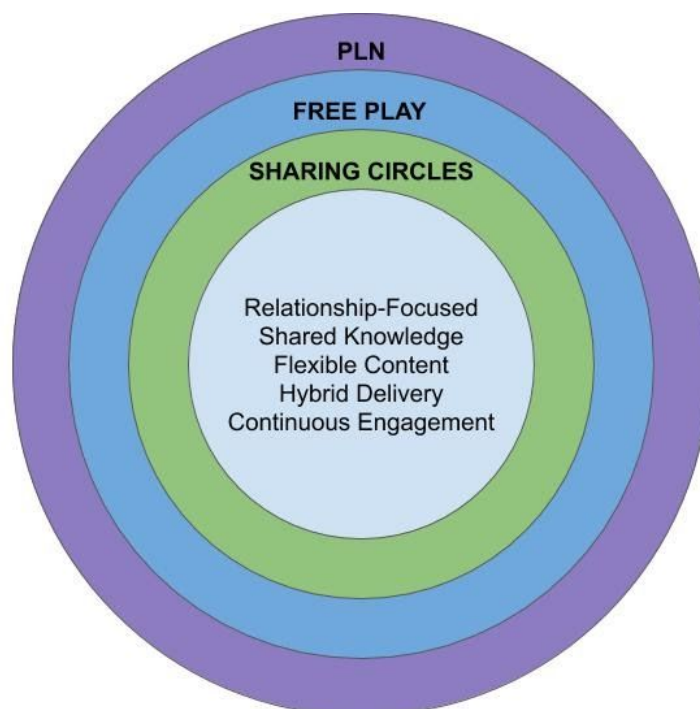
both the priorities of education ministries (i.e., education policy) as well as district priorities and the needs of the school. Connecting with school administration was helpful to learn what types of PD they were seeing had the biggest shifts in their staff's collective development and growth - and identifying what the top priorities would be (particularly in terms of both content and budget) when securing PD opportunities for their staff. Administration was instrumental in articulating the importance of fostering a strong and ongoing relationship between PD facilitator(s) and participants.

Stakeholders in this work include funders of PD, who typically appreciate the potential positive impact of teachers on the performance and affect of students, who they wish to support. In the case of this particular action research, stakeholders include the Canadian federal government (as part of an initiative to support teacher education connected to coding and digital skills; this participant-driven framework will be piloted in PD sessions for those topics), as well as industry partners (specifically, Microsoft and Google) who also wish to support teacher training with the ultimate goal of increasing K-12 student engagement in STEM (science, technology, engineering, and math), which can lead to stronger graduates entering the workforce.

### **The action research process to date: the framework**

Based on research as well as involvement of constituents, a participant-driven PD framework is proposed with five guiding principles at the core and three key elements that frame any PD experience (see Figure 2). Rather than be connected to any given grade or subject area, this framework serves more as recommendations or best practices for any facilitator of PD looking to take a participant-driven approach in

their work. The guiding principles are more philosophical ideas around *how* this work should take place; tangible suggestions of what this may look like and/or how to measure whether the guiding principle is being practiced are suggested in the sections below. The key elements are specific, actionable components of what needs to happen in this participant-driven approach.



**Figure 2.** *A proposed model for participant-driven professional development (PD) for K-12 teachers. At the core of the model are five guiding principles, with three key elements framing this teacher experience. The model is intended to be adaptable across grades and subjects, and a tool for facilitators by which to enhance participant engagement in PD by focusing on empowering participants to take charge of their learning experience.*

There are five guiding principles of the framework; each is a philosophical approach within the PD structure and suggested as a means to optimize participant engagement. These are theoretical approaches, with the three key elements that follow as practical

ways in which to meet the expectations of the guiding principles. At the centre are these guiding principles, which are core to the PD approach. The circles (elements) that surround these guiding principles build on each other, the sharing circle builds the trust that can foster sharing through free play, and ultimately building professional learning networks creates a community of practice that encompasses all the components of the participant-driven model.

- 1. Relationship-Focused:** Within the PD session, there are relationships between an individual participant and their fellow participants, as well as between that participant and the facilitator(s). Focusing on building strong connections on both of these domains is the first guiding principle, because without trust there is little to no motivation for participants to start sharing knowledge with each other or support each others' learning journeys. While relationships are not forged instantaneously, they should start to be fostered from the moment participants enter the room; creating an inclusive environment where "safe space norms" are developed is essential. All three Key Elements of the Framework are focused on building relationships: the sharing circle, free play, and professional learning networks provide valuable opportunities for connection both personal (trust-building) and professional (content sharing).
- 2. Shared Knowledge:** With this approach, there needs to be a psychological shift on the part of the facilitator that they are the keeper of knowledge in the room.



The power dynamic that needs to happen is that authority is shared among all and also that there is wisdom and experience within each individual in the room. This is not to say that all individuals have expertise and knowledge in the specific topics that may be addressed within the PD session, but rather that each individual participant is an expert in their own context; each participant carries unique background knowledge that can support both their own and others' learning journeys. It is important as a facilitator both to acknowledge this conceptual shift towards "we are *all* learning together" and provide participants with opportunities to share their past experiences, interests, and ideas with the group. This type of shared knowledge results in deeper learning for all, and often brings to light richer content throughout the session thanks to the diversity of the group, especially when compared to an individual facilitator.

- 3. Flexible Content:** A strong PD session should have learning outcomes for participants, but not be so rigid so as to dictate the course of all activities or not have space for emerging ideas and concerns. "Flexible content" means that activities within PD should be structured such that participants can put their own unique spin on them - perhaps connected to the grade and/or subject they teach, or even their own personal experience and interests. If participants are not able to see themselves in the PD content, they are not going to be engaged or invested - this is the same principle as for working with youth. Flexibility creates choice, and empowers teachers to make their own connections with relevance

and personal meaning to them. Presenting activities as challenges (e.g., a design thinking challenge) is one way to create flexible content where educators define their own problem of interest for exploration.

**4. Hybrid Delivery:** Like students, teachers also learn in a variety of ways and from different modalities. Part of the success of a participant-driven model is creating delivery that will support the diversity of the teacher participants; in addition to flexible content, a hybrid delivery model that incorporates both digital and hands-on components is ideal. This online-offline hybrid can take place both within the session as well as beyond the scope of the PD session; it is important to consider how information and activities might be presented in such a way as to be inclusive and engaging to the broadest group possible. Online content made available during the session can involve photos, video, text, and other multimedia; this also supports teacher participants with the initial steps towards curating their own resources and sharing content and connections with fellow participants beyond the PD session.

**5. Continuous Engagement:** One school administrator that supported on this project said that the single most valuable aspect of PD was the amount of time spent 1:1 between the facilitator and the teacher participant. Her school had piloted a different model of PD in which facilitator coaches were embedded in classrooms for an entire semester; this administrator commented on the

immense value of frequent and ongoing communication and connection. The impact of a “swoop-in”, one-time-only approach to PD is limited; even an amazing conference speech is less likely to have as much influence on a teacher as their peers that they see daily in the hallways, in the staff room, and around the school (Richardson & Maggioni, 2018). For this participant-driven model to work, there needs to be repeat engagement with the concepts and content being presented, whether this is through facilitator support, peer-to-peer support via other participants and the building of the professional learning network (PLN, discussed in key elements), or a combination. What this repeat engagement may look like varies (e.g., online versus face-to-face, monthly versus quarterly, etc.). However, regardless of the logistics, continuous engagement creates a community of learning and increases the chance of shifting teaching practice; this is addressed further in Key Elements (see: Professional Learning Networks).

## **Key elements of the framework**

### **1. Sharing Circles**

The sharing circle is an Indigenous methodology that eliminates hierarchy, promotes storytelling, and provides opportunity for healing, growth, and building connections. Tachine et al. (2016) present how sharing circles foster recognition, responsibility, and relationships as the key anchors in their implementation, and how the circle builds trust through vulnerability. Lavallée (2009) describes how sharing circles draw out the lived experiences of those in the circle, which is something important in the

proposed model of PD; bringing to light the unique experiences and knowledge of both participants and facilitator creates a shared space for learning.

In an Indigenous context, sharing circles “use a healing method in which all participants (including the facilitator) are viewed as equal and information, spirituality, and emotionality are shared” (Lavallée, 2009); there are often traditional ceremonies associated with the sharing circle (such as smudge and tobacco offerings), which will not be discussed as it is outside the scope of this PD. It should be noted that non-Indigenous groups should not be implementing Indigenous sharing circles, but rather can learn from the principles of trust and vulnerability that occur within an Indigenous sharing circle. Western cultures should not be seen to be appropriating this sacred methodology, but informed by some of the practical elements.

In the sharing circle, which is suggested to be conducted at the outset of the gathering, all participants and facilitator(s) sit in a circle. This is a physical representation of equality; there is no beginning nor end, and no one person has a higher authority than any other. This is an opportunity for the facilitator to help establish norms for safe space and collaborative learning, this is also a space to address fears that may arise (such as the disparity earlier mentioned with Edcamps, where novices were at a disadvantage and felt they needed an orientation to the PD methodology). Beyond this culture-setting and communicating ways in which to preserve a safe space (e.g., non-judgemental listening, taking turns sharing), the role of the facilitator is to listen and participate just as any other participant would. In the circle, individuals are encouraged to share their journey - in whatever form that may take, through storytelling

- of what brought them to the circle. It should be stated that participation is not mandatory, and that passing is an acceptable response; using a “talking stick” or “talking stone” that designates who is speaking can be valuable and physically passing this from one person to the next can support in the transition of storyteller. Lavalée makes a final recommendation that the facilitator make themselves available to any participant privately after the sharing circle is conducted, in the event that a participant needs to speak further about anything that was shared within the circle.

The single most important reason for including a sharing circle is to establish collaboration, trust, and foster communication right from the outset of PD. It positions all in the room as equals, and helps to draw out some of the unique experiences of individuals that will continue to come to light through the session. With relationships and trust at the heart of PD, knowledge sharing and engagement in content becomes more possible.

## **2. Free Play**

A portion of any PD offering should include hands-on free play where participants have opportunities to explore content (whatever that may be) alongside their peers, with minimal guidance or interference from the facilitator. Such free play provides heightened opportunities for collaborative learning and exploration, and permits participants to engage in the hands-on learning that was previously identified as high value to PD participants (Garet et al., 2001; Stedrak et al., 2013). Free play also permits self-paced exploration of specific content in a non-threatening environment, where individuals can

ask questions of peers and support each others' learning. Facilitators should still be prepared to support participants with subject matter expertise, but the emphasis during this phase of PD is on learning through failure, experimentation, and prototyping, rather than being told what steps to take.

### **3. Professional Learning Networks (PLNs)**

Professional learning networks (PLNs) are a way to extend the learning of teacher participants beyond just the individual PD session they are participating in. These are teacher-driven and global support networks that encourage educators to share knowledge as well as moral support, helping teachers to feel more connected both to content as well as the teaching profession in general. Part of this PD framework is supporting participants with either launching or growing their PLN, if they have one already. PLNs often take place in the online space, with teachers pursuing blogs, podcasts, and other online content and then sharing and connecting with other educators through social media platforms; Twitter is a common platform (with consistent hashtag conversations often occurring on a weekly or monthly basis) for fostering PLNs (Carpenter & Morrison, 2018). However, it should be noted that PLNs do not need to be exclusively online, but can (and should) include connections with other teachers within one's school or community, and other educators that enhance one's professional growth.

The value of PLNs is that they allow teachers to take charge of their own learning experience (Boylan, 2018). Macià and García (2016) also explored informal online

learning communities through literature review and found that this is still an emerging area of PD enhancement that best accompanies face-to-face interaction. However, the positive impacts of support and mentorship through online communities helped teachers in their growth and learning.

Some teacher participants may express concern that launching a PLN is adding more work. Indeed, providing a challenge within the context of a PD session to discover three hashtags to follow, participate in online chats, take the first step is finding a teacher mentor, or reading education blogs might feel like “add-ons” as opposed to work one is already doing. However, it should be emphasized that in the long run, PLNs save teachers work and energy. They support affective, social, cognitive, and identity aspects of teacher professional growth (Trust et al., 2016); they identify tools and resources for teaching practice, and they ultimately may support retention in the profession due to greater engagement with peers.

An additional layer to the PLN that is encouraged but not expected within this participant-driven PD framework is the incorporation of student voice. As was stated at the outset of this paper, students are at the heart of why we do this work; including students’ perspectives in PD has great value. The ways in which teachers could turn to youth to inform their teaching practice vary; as the ultimate “end users” of classroom instruction, they have an important role in informing how teachers do the work that they do.

## **The action research process moving forward: implementation**

### **Pilots**

Thanks to stakeholder support, the participant-driven PD framework can be applied to sessions for K-12 teachers in Summer and Fall 2019 for coding and digital skills. With intentionality, the guiding principles as well as the three key elements of sharing circles, free play, and PLNs will be embedded into the design of these sessions. The specific topics being covered within these pilot groups will vary (e.g., fundamental coding skills, artificial intelligence, hands-on game design, etc.) but all will be able to apply the fundamentals of the framework and the key elements of sharing circles, free play, and PLNs in their implementation.

Currently, there are two main pilot groups planned, with flexibility to introduce more if more feedback is needed, substantial changes are introduced between Pilot A and Pilot B, or if more groups express interest in piloting the participant-driven framework. Pilot A will take place in August 2019 and is a summer institute for elementary teachers in British Columbia, Canada over the course of two days. Pilot B will take place over multiple sessions spread over October through December 2019, also in British Columbia, Canada, for middle school teachers participating in a workshop mini-series. Both pilot groups are well positioned for implementing the participant-driven framework, and combined will garner feedback from up to 75 educators on their experience with this model. The benefit of both these pilot groups is that the same summer institute and workshop mini-series ran in 2018 yet without a deliberate and



intentional focus on the principles of this participant-driven framework; reception of the PD can be compared year over year to determine teachers' overall impressions. Further, other PD will be running during these two pilot time periods that will not be implementing the participant-driven framework proposed here; these sessions will be asked the same evaluation questions in order to collect both qualitative and quantitative data to compare the participant-driven model to a more facilitator-driven approach that will be undertaken in other sessions.

### **Evaluation & Future Cycles**

Survey development with both qualitative and quantitative measures to assess teacher experience; shifts in knowledge, skills, and/or attitudes (pre-session to post-session, as well as longer-term follow-up post-session, currently planned for three months afterwards) are important measures for this work. Teacher participants will also need to report on the amount and type of communication happening between them and the facilitator(s) of their session, fellow participants, and non-participants both during and following the PD experience - this is particularly valuable in terms of assessing the efficacy of the professional learning network(s) that participants build and the relationships fostered through PD. Evaluation will be anonymous and considered both in terms of individual experience (anecdotes and stories shared) as well as aggregate averages for the pilot cohorts' shared experience. Because government stakeholders in this work will have specific measures that will need to be included in these surveys, and these measures have not yet been announced, survey development remains as future-state work and will be undertaken prior to commencing Pilot A in August 2019.

The goal of this work is not only that the participant-driven PD framework will be implemented through my own facilitation, but ultimately adopted and adapted by others in their own PD facilitation. By positioning this work with guiding principles and key elements (rather than any grade- or subject-specific components that might limit how it is used), this framework could be used as a checklist for any facilitator to assess: does their session meet the guiding principles, and does it include the three key elements of the participant-driven approach?

Future cycles of this work will continue beyond Fall 2019. Once evaluation is conducted from Pilots A and B (including the proposed three-month follow-up survey), suggestions for improvement and adaptation will need to be considered in a revised version of this framework. It is possible that the guiding principles and key elements will need to be expanded or changed; it is also possible that the participant-driven approach will not be well received and the entire methodology for PD will need to be revisited. Maintaining flexibility and open-mindedness during the process of iteration will be important, as well as regularly engaging the voices of constituents for input (i.e., other facilitators, teacher participants, and education administration). It is not anticipated that stakeholders will have waning interest in teacher PD, but they will want to see well-received PD that has significant positive impact on teaching practice. Even if there is positive initial feedback, future iteration may include refining the model for even greater adaptability beyond K-12 education as well as being responsive to new ways in which PLNs are built and fostered, which is constantly changing because of technology advances.

## **Future considerations & next steps**

The development of this framework has been for my own evolution as a facilitator of teacher PD, but ultimately the hope is to bring this work to a much broader audience. Having other facilitators take up this participant-driven model would allow for more diverse groups to practice and implement the guiding principles and key elements of the framework, and with more teachers and/or administrators advocating for this type of approach, an increased reach using the participant-driven framework becomes more possible. Administrators in particular serve an important role as constituents, but also possibly stakeholders in this work; teaching staff who are unengaged in PD may become disengaged with their work and possibly even leave the profession, necessitating resources devoted to hiring and training of new staff. From an economics standpoint, finding ways to create more engaging PD that makes teachers feel supported and connected to content as well as each other bodes well for teacher retention.

Further, this work has potential to inform professional development beyond just K-12 education. Scaling up delivery within the K-12 teaching profession is an initial goal, but this framework has relevance to other training with adults. Future cycles of iteration using a participant-driven approach may be useful for off-site retreats and other professional learning opportunities within industry, such as within teams looking to maximize their performance and employee engagement. With some adaptations (e.g., taking the concept of “free play” and adapting it to the industry in question), a participant-driven approach to adult learning has some potential.

As this research progresses, results and findings can be published through my non-profit organization site, where we share information about our teacher training programs (including our rationale and approach), and results can also be included into future funding applications to continue this work and conduct more cycles of action research. There is potential for even wider dissemination of findings through white papers or other publications to share, particularly within the education community, how teacher participants are responding to this type of PD approach and support other facilitators of PD in exploring how they might start to implement a participant-driven approach in their work.

As I have gone through the first phases of action research for developing this participant-driven approach - with much more action research work yet to come - I have found an increased awareness of when and where various “participant-driven approaches” are undertaken not just in PD settings, but in other learning environments such as staff meetings or seminars. I can see how these approaches are typically balanced with more facilitator-driven practices, and this is sometimes welcomed; one challenge I project is how to find the right balance and meet the needs of those participants that may *want* direct instruction at times. One piece of feedback I heard recently is that a particular participant occasionally wanted a “light lecture” - which is not something that the participant-driven model prioritizes. Making assumptions that even this model might fit everyone’s needs may not work; instead, when applying it to PD sessions (i.e., finding ways and times in which to bring in the guiding principles and key elements) it will be important for me to consider how it can be made to be flexible

enough to accommodate diverse needs and perhaps even shift in delivery in response to group needs during the session itself - while still remaining true to the spirit of the framework.

It is projected that this shift, while perhaps initially intimidating or unfamiliar to fellow facilitators, will ultimately result in greater participant engagement, deeper connections among teachers in any given PD session, and stronger learning outcomes for participating teachers - which trickles down to students and fosters a healthier, happier learning community for all. Without this shift, teachers will not be a part of the continuous learning and relationship-building that is critical to engaging them in the teaching profession (both for content and in connection to peers); if we as a society want to foster a strong educational system with committed and long-term teachers, empowering them through PD that is driven by their needs is critical.

## **Citations**

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational researcher*, 33(8), 3-15.

Boylan, M. (2018). Enabling adaptive system leadership: Teachers leading professional development. *Educational management administration & leadership*, 46(1), 86-106.

Budd, A., Dinkel, H., Corpas, M., Fuller, J. C., Rubinat, L., Devos, D. P., Khoueiry, P.H., Forstner, K.U., Georgatos, F., Rowland, F., Sharan, M., & Binder, J.X., Grace, T.,

Traphagen, K., Gristwood, A., & Wood, N.T. (2015, January 29). Ten simple rules for organizing an unconference. Retrieved March 12, 2019 from doi:

[10.1371/journal.pcbi.1003905](https://doi.org/10.1371/journal.pcbi.1003905)

Carpenter, J. P. (2016). Unconference professional development: Edcamp participant perceptions and motivations for attendance. *Professional Development in Education*, 42(1), 78-99.

Carpenter, J. P., & Morrison, S. A. (2018). Enhancing teacher education... with Twitter?. *Phi Delta Kappan*, 100(1), 25-28.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.

Lavallée, L. F. (2009). Practical application of an Indigenous research framework and two qualitative Indigenous research methods: Sharing circles and Anishnaabe symbol-based reflection. *International journal of qualitative methods*, 8(1), 21-40.

Macià, M., & García, I. (2016). Informal online communities and networks as a source of teacher professional development: A review. *Teaching and Teacher Education*, 55, 291-307.

McNiff, J. (2010). Action research for professional development: Concise advice for new action researchers. Poole: September Books. pp. 4-39

National Academies of Sciences, Engineering, and Medicine. (2018). *How people learn II: Learners, contexts, and cultures*. National Academies Press.

OECD Organisation for Economic Co-operation and Development, Santiago, P., & SourceOECD. (2005). *Teachers matter: Attracting, developing and retaining effective teachers*. Organisation for Economic Co-operation and Development. Retrieved April 28, 2019 from <http://www.oecd.org/education/school/34990905.pdf>.

Rand Corporation. (2012). Teachers matter: Understanding teachers' impact on student achievement. Retrieved April 28, 2019 from [https://www.rand.org/pubs/corporate\\_pubs/CP693z1-2012-09.html](https://www.rand.org/pubs/corporate_pubs/CP693z1-2012-09.html).

Richardson, S. & Maggioni, G.D. (2018, April). *Effective professional development: principles and best practice*. Cambridge Papers in ELT series.

Stedrak, L.J., Ortagus, J.C. & Locke, L.A. (2013, July 15). Improving professional development in education: the role of digital technology. JCT, 2013: Summer.

Tachine, A. R., Bird, E. Y., & Cabrera, N. L. (2016). Sharing circles: An Indigenous methodological approach for researching with groups of Indigenous peoples.

*International Review of Qualitative Research*, 9(3), 277-295.

Trust, T. (2019). Leveling up online course design. [Online presentation]. Retrieved March 11, 2019 from [bit.ly/2J62psD](https://bit.ly/2J62psD).

Trust, T., Krutka, D. G., & Carpenter, J. P. (2016). "Together we are better": Professional learning networks for teachers. *Computers & education*, 102, 15-34.