A Pedagogical Framework to Support Online Teacher Professional Learning

ETEC 511: Foundations of Educational Technology

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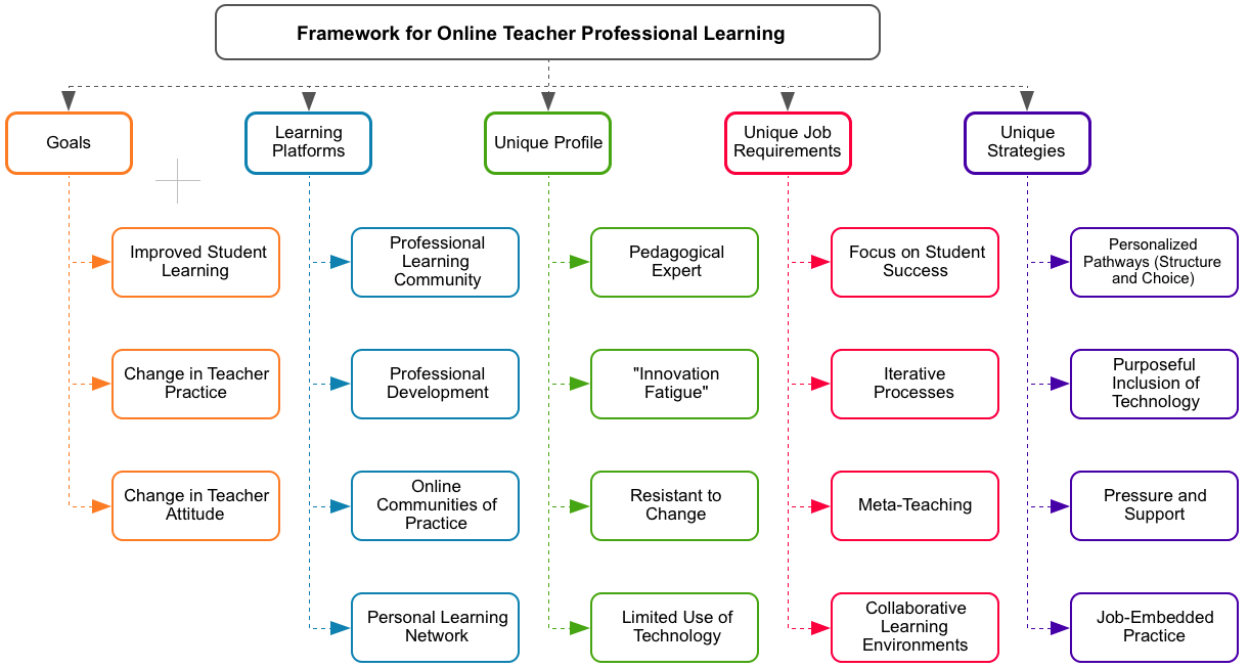
As the move to online and blended professional learning continues to grow and evolve, several issues related to design and delivery need to be addressed. Multiple challenges exist. Even the best in-person professional development, in which teachers are actively engaged in their learning, is rarely enough to change instructional practice. As such simply transferring this type of PD to an online environment will not address the problems inherent in the current model.

Developing a pedagogical framework to support online teacher professional learning is required to address the specific skills, attitudes, professional needs and job requirements, unique to the teaching profession, without which a change in instructional practice is unlikely to occur.



Changing Classrooms

Today's classrooms and schools were designed to meet the needs of the industrial revolution. Everything from bells, sorting of students by age, and defined subject areas comes from this time. The style of teaching from this era, defined by teacher-centric instruction, lecture and delivery of content and facts, steadfastly remains in many classrooms to this day. Over the years, pockets of teachers and educational leaders called for a change in teacher practice, from "sage on the stage to guide on the side" (King 1993) with little shift. Even as research was distilled into understandable and eminently useable

instructional strategies (Dean, Hubbell, Pitler, Stone 2012, Jensen 2005, Marzano 2007), delivered to teachers through professional development, the status quo remained.

> ...transmissionist or presentation pedagogies need to be replaced by theories of learning that place inquiry based approaches, knowledge building and/or constructivist principles at the heart of classroom practice—whether or not technology is involved. The magnitude of the change in teacher thinking required for effective technology integration is enormous. (Clifford, Friesen, Lock 2004)

The educational landscape is experiencing a tsunami of change. The exponential growth in the availability and use of mobile devices, serves to increase both the pressure, and the means, to change classroom practice. Like water through a crack in the damn, technology is about to burst through the classroom walls. (Wainwright 2013) The demand (and again the means) to personalize learning, implement flipped classrooms and ensure students are prepared to live and learn in an information saturated world, drives the need to find more effective ways and means to build teachers' professional skills and truly usher in a new era of teaching and learning.

Keeping pace with these shifts in instruction and technology is the increase in online and blended learning to deliver everything from K-12 and postsecondary instruction to personal DIY and professional learning. (Gutierrez 2012*)* Online learning is scalable and cost effective and as such districts will continue to expand their use of blended and online learning for both students and teachers. (Gutierrez 2012*)* It is only a matter of time before most teachers will take part whether they are prepared for the experience or not. However, as noted above, decades of PD has done little to change teacher practice, merely moving the venue will not change the outcome. Indeed if education is to heed the call to redefine student learning and instructional practices for the digital age, then it must first focus on teachers as learners (Fullan 2007) and redefine teacher learning.

Unique Teacher Profile

Teachers are weary of traditional professional development, wary of technology and resistant to changing their instructional practice. This culture of resistance needs to be understood and addressed if change is to happen. Just as Marc Prensky (2001) coined the phrase "Digital Natives" to describe this generation of students, teachers could be called the "Learning Natives": pedagogical experts if you will. Unlike adult learners in other professions, teachers often bring to any formal or informal learning environment, an understanding of the framework, design and strategies associated with learning. This is both positive and negative. It allows teachers to quickly build and scaffold new learning but it also makes them resistant. For teachers, change isn't merely learning new things; merely amplifying practice through the inclusion of technology or adding an instructional strategy to a "to-do" list, it is more personal than that. And much more work. It often requires them to analyze and discard old beliefs, many of which might be the backbone of their teaching. (Owston, 2004).

Teachers are also resistant to change because they are considered "public property". It is difficult to risk failure under a microscope. Everyone has an opinion of teachers and public perception is often harsh. (Samsa 2013) As pedagogical experts, their reputation (and often their identity) is grounded in their perceived skills and abilities as a teacher. Any form of PD that requires teachers to examine and change their teaching practice, unless carefully crafted, could be viewed as an attack on that reputation. To many teachers, adding technology to the mix only serves to highlight their perceived shortcomings. Given the very public nature of teaching, and the often punitive approach to teacher evaluation and assessment it becomes clearer why teachers' resist change.

> Professional learning can ask a lot of teachers in the interest of their students. Even those who are confident in their professional role can feel profoundly uncomfortable when what they hold to be true is challenged and they have to rethink their beliefs and practices. This is particularly so because teachers are adults who have well-defined and defended schema about the way the world works. (Timperley, Wilson, Barrar, Fung 2007)

Throughout the decades educational change initiatives were synonymous with professional development (PD). For teachers, PD became an event to attend, a day off from the classroom, informational but not transformational. As Fullan (2012) notes, “The history of education innovations has generated a ‘this too shall pass’ mindset among teachers. One of our colleagues calls this phenomenon ‘the law of innovation fatigue.’” After a PD session it was expected teachers would apply what they learned to their classroom practice, but this rarely occurred. Despite decades of professional development, "one longitudinal study of K–12 professional development (Porter, Garet, Desimone, Yoon, & Birman, 2000)... found that 'teachers changed little in terms of the content they teach, the pedagogy they use to teach it, and their emphasis on performance goals for students,'..." (As quoted in Timperley, Wilson, Barrar, Fung - 2007)

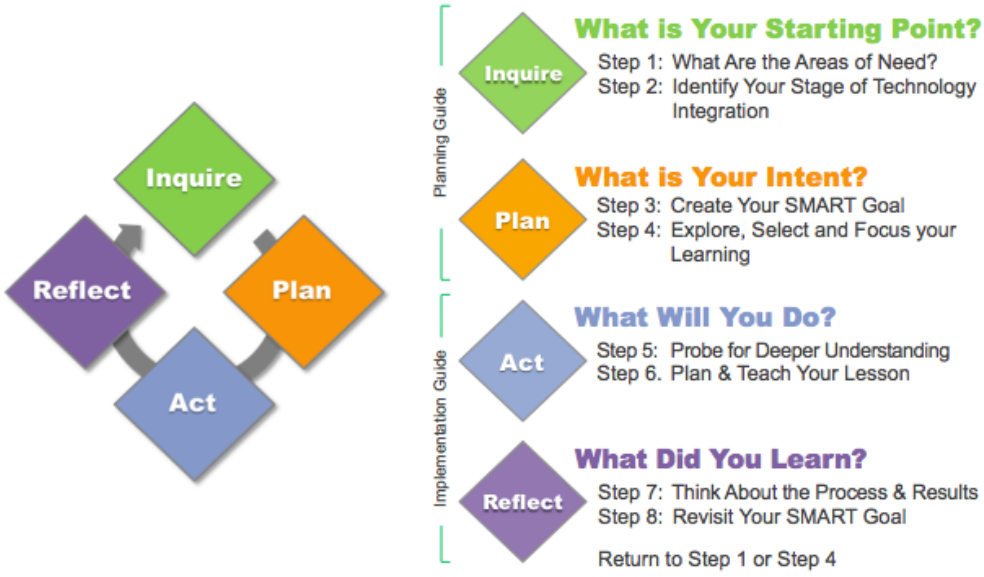
Technology is the catalyst for much of the change to the design and delivery of learning in schools. It is also the platform or portal through which teachers will be expected to learn, yet this same technology is also keenly resisted by teachers. This resistance is due in part to poorly designed PD. Training focused on “how to” and “point and click”, failed to address teachers’ learning needs and as a result all but a few “pioneers” abandoned implementation in the face of classroom realities. (Steves 2012) In a recent survey (Lepi 2013) 86% of teachers said the use of technology in their classroom is essential, but in reality very few use it, or if they do, very few go beyond simple substitution or replication of practice. Reasons are plentiful: lack of time, lack of support, lack of access to technology. For decades the mantra has been “I’ll get to it someday”. That day is here.

Unique Professional Needs and Strategies

Iterative Processes for Learning

Teachers need to begin their professional learning journey with a plan or roadmap. Moving through a cycle of Inquiry, Planning, Action and Reflection gives purpose and direction to all subsequent professional activities. Online learning needs to address this cycle, through the planning of activities that

include and reference this important process. Even "event" PD sessions, should encourage educators to consider how the session fits with and supports their overall plan and goals.



Revised from "Professional Learning Guide" (Grant, Hamilton, Hamilton 2012)

Focus on Student Success

As the diagram above shows, teachers must start with areas of need: their own professional needs as well as student learning needs. The goal of any professional learning then becomes to not only improve teacher practice but to improve student learning. (As quoted in Timperley, Wilson, Barrar, Fung - 2007), For too long we have asked teachers to evaluate professional development based on what they learned. Evaluation needs to wait until we know what their students' learned. This cycle of reflective practice brings student learning to the forefront and must be part of any online learning component.

Meta-Teaching

Related to student success is the concept of meta-teaching. Perhaps the most important differentiator that sets teacher instruction apart from all other professions beyond their pedagogical expertise is this dual role of learner and teacher. Teachers are not just learning a new skill they are learning a new skill that must then be used to teach students a new skill. When viewed inside a professional learning plan, the need to include meta-teaching is evident throughout each step in the process. As discussed, PD often ignores this requirement, resulting in events not change. Designers of

online learning courses, communities of practice, and PD providers need to explicitly design for this "split personality" or "meta-teaching".

> Through meta-teaching...students are also required to make explicit connections about technology both as...teachers and as learners. After each lesson, students and instructors critique both what went on in the lesson, and why. Students are encouraged to ask important "why" questions about technology: Why did we ask you to do that activity? How is that activity enhanced with the use of technology? How could you improve the lesson or the technology use? How could you modify the activity the cycle is to be complete. (Clifford, P., & Friesen, S., Lock, J. 2004)

Collaborative Learning Environments

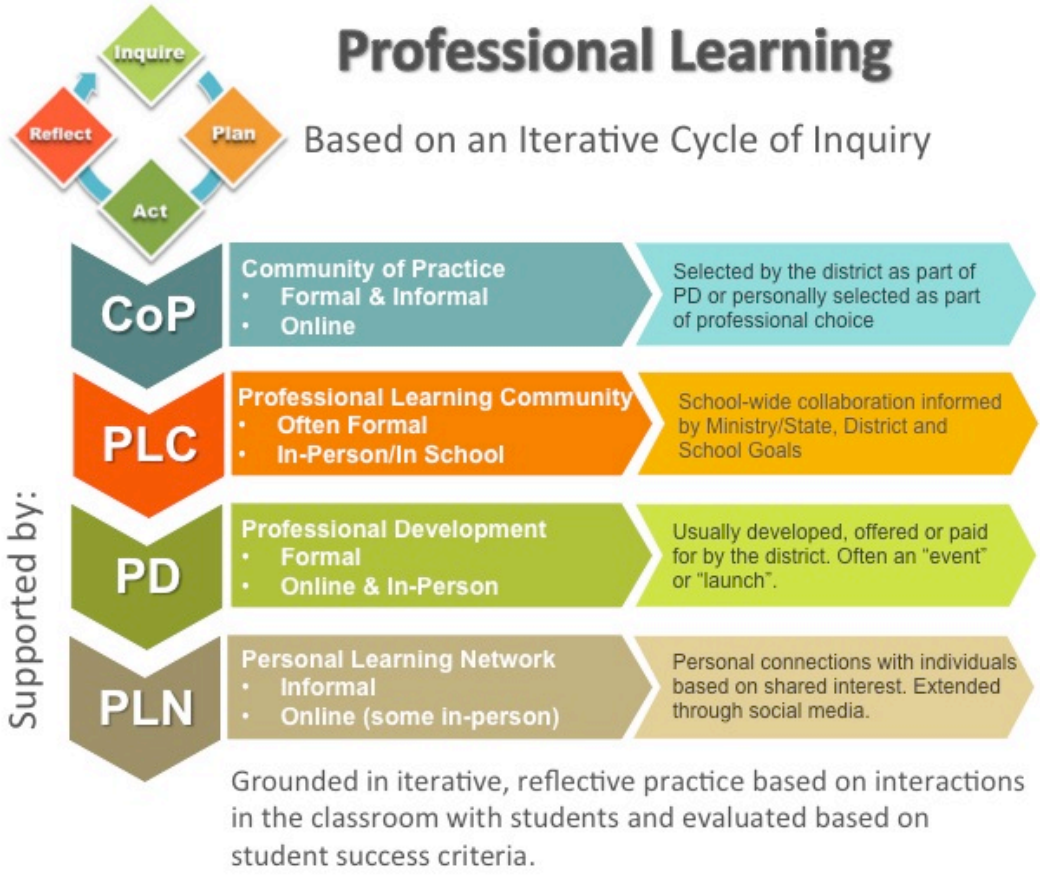
Professional development and professional learning, although used interchangeably, are fundamentally different, albeit interconnected, terms. Professional development is often viewed as something done to an educator. (Cole 2004, Hannay, Wideman & Seller, 2006) The district brings in a motivational speaker, expert or specialist to instruct or share with teachers via a presentation, workshop or event. While this type of training isn't wrong, and in fact it can be beneficial when done well, it isn't enough on its own (Easton 2008) and as discussed previously, it is often resisted or merely tolerated by educators. Although some call for the end of Professional Development as a word and concept (Fullan 2002, Cole 2004), PD still has a specific role in the "formal and official" aspects of teacher learning. It is necessary but insufficient. (Hannay, Wideman & Seller, 2006)

Professional Learning is the application of an iterative cycle of inquiry that teachers engage in daily, within a collaborative and supportive environment; with the intent to change practice. (Hannay, Wideman & Seller, 2006) This type of professional learning isn't an event or even a series of events. It is behaviour. Shared with others.

> In practice, inquiry engages teachers as learners in critical and creative thinking. It honours openness and flexibility. Through collaborative dialogue, teachers seek emergent possibilities – new questions and

> solutions to student learning and achievement. This stance is "iterative," repeating progressively as teachers reflect and build on each successive inquiry. (Ontario Ministry of Education 2012)

In many ways PD becomes embedded in a teachers' professional learning. Rather than a standalone event it becomes part of a menu of choices related to professional growth.

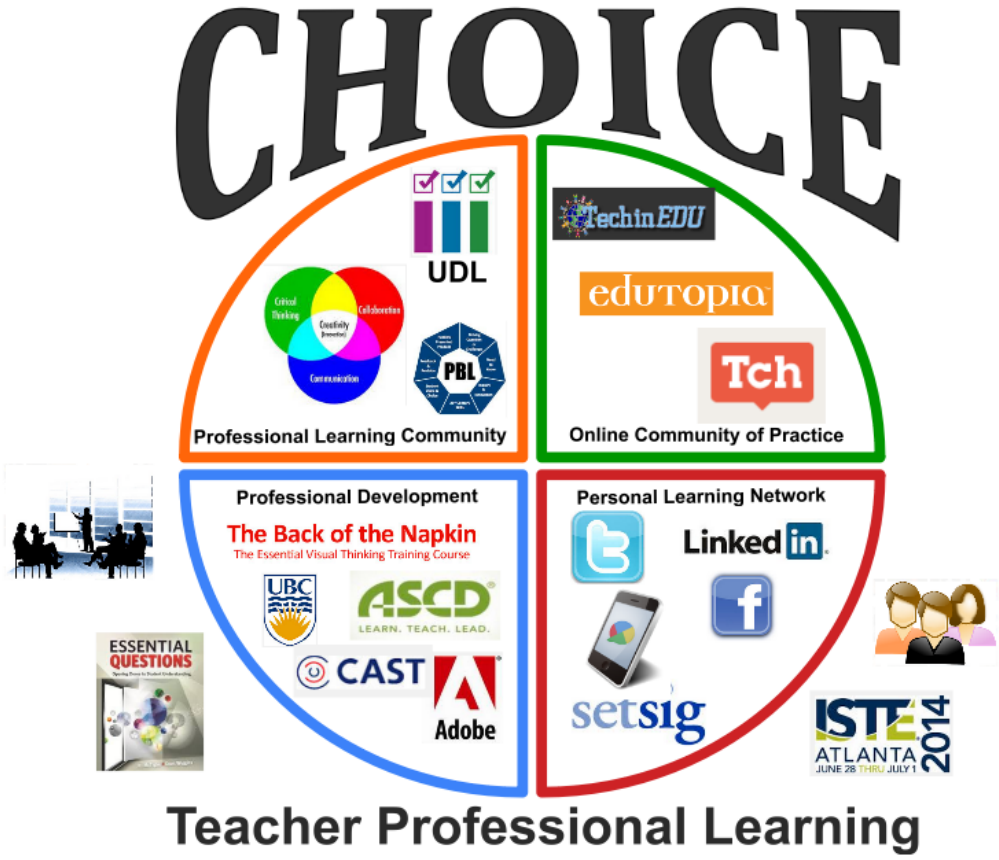


Online Communities of Practice and Personal Learning Networks

However, PD embedded within Teacher Professional Learning, embedded within a whole school community of practice in which teachers share ideas with others in a collaborative environment (Barab et al., 2002) is not enough to bring about the systemic change needed. For this to happen, whole districts and indeed education itself must become one large community of practice. (Fullan 2002) With the affordance of technology, what was once only possible within each school community is now possible, and organized, online.

Online Communities of Practice (OCoP) are communities developed and maintained online by active members, experts in their field, whose goal is to create and share knowledge. Community members learn through both instruction-based and group discussion. (Wikipedia) Personal Learning Networks (PLN) are the informal connections made online. Learners interact with and derives knowledge from these connections but do not need to know or meet their connections. (Wikipedia)

Encouraging teachers to engage in a collaborative, iterative, reflective process designed to change their instructional practice requires several key elements: a robust professional learning community (school), a supportive online community of practice, an engaging personal learning network and professional development as needed and required. This new focus is based on choice and collaboration supported and extended through technology. The diagram below shows what this might look like for a teacher in a purely online environment (inside the diagram) supplemented by in-person activity (outside the diagram).



Needs, methods, tools and access, are all converging in a perfect storm to permanently redefine teaching and learning. To overcome teacher resistance to PD, technology and change, the creation of a collaborative, professional online community is vital. However, in most online communities, only 10% of those enrolled participate. (Mageau 2012). Teachers, used to working behind closed doors, may participate even less without incentive and encouragement. In formal settings, requirements for participation need to be specific; however, to avoid mere compliance without reflection, creating a sense of community and trust is important. This can be accomplished through personal emails, online video chats, calendar reminders and brief audio clips. (Henry, Meadow 2008).

> Students cannot be left on their own and be expected to wade through massive amounts of content. They need connection, contact and a sense of realness and immediacy (Gunawardena & Zittle, 1997; Melrose & Bergeron, 2006; Rettie, 2003). In short, they need a sense of community (Henry, Meadow 2008).

Although it can be argued that any online learner would respond positively, given teachers' unique profile these types of interactions and invitations are vital.

In informal online settings, teachers need to be aware of the purpose of creating their Personal Learning Network. They might in fact need PD around this type of informal learning to increase their awareness and help them develop a plan that moves them from "lurking" on Twitter or a Ning, to sharing and co-creating with other professionals.

To further support teachers as they venture online, providing multiple pathways for learning will help accommodate the wide range of pedagogical and technical skills of participants. In addition, to address teachers' issues with their personal technology skills, the goal of any online community or course will be to use technology with purpose rather than for effect. (Henry, Meadow 2008). For designers and online communities this means resisting the urge to use the latest and newest, carefully selecting the best tools for effective and varied collaboration and ensuring a clean, intuitive interface to eliminate frustration. The ultimate goal is for teachers to understand and use the technology, see and explore models of good

teaching and then apply what they learn to their own classroom with a critical eye towards improved student learning. If their experience online is negative and frustrating they will be less likely to see the benefits for their teaching or for their students.

> In an online course, students need to be able to find everything they need to be successful learners and how to do so easily. Even in well--organized courses it is not uncommon to find out, part way through the course, that one or more students have not found some of the essential information. They weren't just quiet or shy; they were lost. (Henry, Meadow 2008)

Unique Job Requirements

Job-Embedded Practice

Unlike most other professions, teachers cannot stay away from the classroom for long periods of time, nor can they "test out" their ideas in a controlled environment. The classroom must become their lab if they are to complete the professional planning cycle. Only by connecting the work done online with what happens in the classroom, will teachers completes the cycle, ready to begin again. It is through this iterative process of making connections to theory, developing practical classroom applications, implementing them in the classroom and then assessing them for positive student outcomes, that teachers will be more likely to make long-term changes to their instructional practice. (Timperley, Wilson, Barrar & Fung, 2007)

> Therefore, an important goal for online learning is to support learners in making their ideas public, providing opportunities for them to build and refine meanings based on their own experience and that of their peers (Meletiou-Mavrotheris, Mavrotheris 2006)

This job-embedded practice is key to teacher professional growth and student learning, and it is key to any online course or community. While job-embedded professional practice is made easier with the just-in-time resources, ongoing discussions and community support and feedback a click away, online learning designers must design with intent and make expectations explicit to support teachers as they move from reluctant PD avoiders to avid practitioners ready and willing to share their knowledge.

> The distance education environment will be designed as a framework for flexible learning (Collis & Moonen, 2001), regarding teachers as the main agents of their professional development, supported by an environment rich in challenges and interactions. Particular care will be taken to build on teachers' knowledge and experiences and to promote interactive learning and cross-cultural exchange of experiences and ideas. The ideas of collaboration and reflection, and of inquiry and exploration as a process of knowledge construction (Ponte, 2001), will underpin the program's design. (Meletiou-Mavrotheris, Mavrotheris 2006)

Conclusions

As many online instructors have discovered the move from in-person course delivery to online learning is not simply a lateral shift of materials and activities. It requires a different pedagogy and a nuanced approach to communication and collaboration. (Henry, Meadows 2008) Given the unique knowledge and attitudinal profiles of educators, the growing necessity for reflective practitioners (Atwere, Dennis, Foot, Jennings 2007), and the intent of professional learning to improve student learning, several key design considerations are required.

Teachers' unique learning needs and pedagogical strengths require the creation of a unique framework to support the development of online learning modules and online learning communities that both affect and support teacher professional growth and change. The current models often ignore, or at least fail to recognize, that any learning activity must apply to both the teacher and their practice. In the design, delivery and implementation of any online learning, there will be two "conversations" - one personal to the learner, the other pedagogical to their practice. If this dichotomy is not addressed, teachers will experience the "same old, same old" and be less likely to engage in ongoing cycles of reflective practice necessary to change their practice.

Teachers' unique profile includes a culture of resistance to PD, to technology and to change. Online learning must design for this resistance. Through engaging, inquiry based activities in a clean, easy to navigate and supportive online environment, teachers will be more likely to commit to learning

and address changes that might make them feel uncomfortable. Teachers' unique job requirements requires they approach their learning as an iterative process, grounded in research but refined in the classroom. Any online learning must build this process into the course or community ensuring meta-teaching and other reflective practices are key course components. Teachers also require unique strategies in their online learning experience. Carefully chosen platforms and course or community layout will go a long way to supporting teachers who are unfamiliar with an online environment. Through this design the power of technology to enhance and support learning will be explicit. Finally, through recognition that teacher practice will only shift in the classroom, job embedded learning will be a cornerstone of any online learning, tying into a teachers professional growth plan and ensuring the work done in online collaborative settings impacts the classroom and improves student learning.

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