**Barriers to Educational Change**

There are many reasons why educational change is difficult and takes time. While these are not limited to the teacher professionals themselves, how teachers interact with one another, how leadership interacts with teachers, and how a teacher views him or herself within the larger context of teaching can influence the rate of change. A facilitator or learning needs to be aware of these potential barriers and take steps to lessen or eliminate them for the teachers they are working with.

**Role of Trusting Relationships**

If beliefs are consistent with reform, and teachers see benefits of reform, then trust levels are increased and teachers support change (Schmidt & Datnow, 2005). Teachers become positive focusers, determined to make a difference in their classroom. When teachers are continuous renewers, they seek new opportunities that challenge the status quo within their classrooms throughout most of their careers. They view themselves as learners because they have been respected as such (Hargreaves, 2005). These teachers attempt to maintain open vulnerability with students, and are open to facilitating learning by building trust because they feel safe (Schmidt & Datnow, 2005).

Schmidt and Datnow (2005) also examined the role of negative focusers in change initiatives. If inherent beliefs are threatened, teachers will resist and may find ways to undermine change and reform efforts that threaten them. Disenchanted teachers have been down the path of reform, have been disappointed in the past, and are most likely the most vocal opponents of change (Hargreaves, 2005). When a teacher experiences inefficacious vulnerability, it causes them to withdraw or become defensive because they don’t feel safe (Schmidt & Datnow, 2005).

It is imperative that change initiatives respect teacher belief and allow teacher voice in setting school and classroom direction. Cook-Sather articulates that the "most important premise upon which different approaches to educational policy and practice rest is trust" (2002, p. 4). Building a community that trusts each member is essential to educational reform. Part of building a trusting community is to truly listen to all voices. Cook-Sather advocates that "a step beyond including students in existing forums is the creation of new forums within which all stakeholders can come together and talk amongst themselves, each bringing a perspective that is valued and respected by all the others" (2002, p. 10). Only in this democratic educational milieu will community building occur.

**The Knowing-Doing Gap**

Putnum & Borko (2000) recognize that change in education is very slow - it struggles to move ahead but seem to get nowhere. Researchers ponder the same questions now that they did decades ago. Changes do not happen just because teachers learn about teaching differently even if they decide to teach differently. Patterns of teaching are resistant to change because schools are powerful discourse
communities that enculturate members, teachers, students, administration, into traditional ways of thinking. There is often disparity between teachers' espoused beliefs and enacted models of teaching due to school-based constraints. These include students resisting unfamiliar approaches, parents resisting movement away from traditional teaching, administrators showing intolerance of chaotic classrooms, and school systems failing to provide resources. Reducing the ‘knowing-doing’ gap (Pfeffer & Sutton, 2000) is not only dependent upon teacher willingness to act upon belief, but is also related to available resources and policies and structures within a school system. In order for professional development to lead to deep implementation, it needs to create its own critical mass of teachers immersed and advocating a new culture of teaching and learning that openly accepts changes in pedagogy.

A professional development process takes time to break norms. This includes breaking teacher and staff developer expectations regarding what Professional Development looks like (Richardson, 1992). Teachers' professional histories play a role in determining what they learn from professional development, and “there is as much to unlearn as there is to learn” (Ball, p. 2). Teachers need to talk about beliefs and practices with other teachers (Richardson, 1992). Just as Van de Walle & Folk advocate for student learners, time must be given to permit teacher learners to wrestle with tasks individually or as a group, discussing solutions and strategies (2005).

Beyond professional development, barriers that are imbedded within school structures, such as time and resources, need to be examined and reduced in order for the knowing-doing gap to be reduced. Guskey (2002) recognizes that lack of organization support can prevent teacher learning from being actualized in a classroom. When organizational policies and practices are in conflict with the mandate and learning within a professional development opportunity, teachers can become frustrated and the knowing-doing gap remains. It is important that teacher professional learning opportunities align with school division directives so that this conflict does not occur, and that individual changes are supported and understood by school and division leadership.

**Professional Isolation**

There is a common belief that the right to develop your individual teaching style encourages isolation and individual competence. Preservice education programs have focused on development of individual knowledge and competencies. A teacher must have gone through a conceptual revolution themselves (Cobb, 1988) in order for changes to occur in their practice. Creation of a reflective practitioner involves not only examining research-based knowledge, it requires the opportunity for professionals to work together to discuss and reflect on how they respond to issues, problems, and surprises in their professional practice (Schon, 1987). Professional development needs to allow for professional conversation and reflection, allowing one individual’s expertise to be shared and understood by others. Cobb (1988) states that teaching by negotiation requires a deep, relational understanding where the teacher continually assesses constructions and misconstructions of concepts. This higher level of skill is
attainable by many if there is the opportunity to expose and share excellence within a group of teachers.

**Uncertainty of the Future**

Ball has identified three uncertainties being faced by teachers: the challenge of incomplete knowledge, the challenge of competing commitments, and the challenge of responding to students (Ball, 1996).

*The challenge of incomplete knowledge* recognizes that human understanding is complex. Teachers will never be certain how students gain knowledge and what their preconceptions are. Because of this, we cannot guarantee that a student engaging in a specific activity will correctly construct knowledge.

*The challenge of competing commitments* is prevalent in our new curriculum, where teachers have made the commitment to teach content that is correct and worthwhile and are also expected to commit to allowing students to pursue novel ideas.

*The challenge of responding to students* shows awareness that there is no specific set of steps or procedures to be enacted for all children. There may be activities and interventions that might work with some children but there are no guarantees because each learner is different.

Because there is a wide variety of knowledge of interventions required to assist different learners in different contexts, building professional judgement through knowledge of a wide variety of strategies and concepts is key to combatting professional uncertainty.

**Teacher Identity**

Teacher identity plays a role in educational reform. “Teacher professional identity is how teachers define themselves to themselves and to others. It is a construct of professional self that evolves over career stages” (Ball & Goodson 1985, Huberman 1993, Sikes, Measor & Woods 1985 as cited in Lasky p. 901). Teacher identity is created through a combination of subject specialty, construction of knowledge, and professional vulnerability. Teacher identity influences individual professional learning needs in both content and process.

**Subject Specialty**

Subject specialty is one part of teacher identity. "Teacher educators and preservice teachers require an identity related to a subject matter in order to engage with that subject matter" (Murphy & Glanfield, p. 14). Little states that a subject department is a powerful professional community. This is particularly true in academic subjects that enjoy higher status due to their association with university, academic rigor, and perceived quality of students (as cited in Helms, p. 812). McDonald believes that who a teacher is as a person influences what is taught and how, where teaching is making connections among teacher, student, and subject (as cited in Helms, p. 813). Helms looked specifically at science and questioned what made science special. She recognized that science teachers have a personal
identification with science, influencing their personal beliefs, values, and goals (1998). Recognizing that while some dimensions of teacher identity are defined by their subject matter, communities of teachers are diverse in belief about subject matter, why and how it should be taught, and their sense of what is important (Helms, 1998).

Conversely, a lack of identity as a subject specialist influences a teacher’s confidence in being able to teach a specific curriculum. Teachers have a higher level of efficacy when they teach in the subject that they are trained in (Ross, Cousins, Gadalla, & Hannay, 1999). Teachers who teach in their field may be more willing to implement new strategies, make changes to their practice, and to persist when learning and teaching are difficult. Teachers who teach outside of their field may be less confident in changing their methods, and may experience poor classroom outcomes resulting in feelings of frustration. Building teacher knowledge, confidence, and feelings of efficacy will increase teacher ability to experiment with new teaching ideas in order to increase student engagement and achievement.

**Construction of Personal Practical Knowledge**

Connelly and Clandinin’s personal practical knowledge is how we understand our current practices in relation to our past practices. This “allows us to talk about teachers as knowledgeable and knowing people. Personal practical knowledge is understood in relation to a teacher’s past experience, in the teacher’s present mind and body, and in the future plans and actions. Personal practical knowledge is found in the teacher’s practice” (Connelly & Clandinin, p. 25 as cited in Murphy & Glanfield, p. 2). We become who we are because of the social context we live in as well as the psychological landscape within us. "What individuals believe, and how individuals think and act is always shaped by cultural, historical, and social structures" (Lasky, p. 900).

Tools of school reform include policy mandates, curriculum guides, and standards. These are products of educational society but also impact teacher identity and their ability to function in schools (Lasky, 2005). The curriculum in mathematics classes is shaped by student experiences of the planned curriculum. Just as students’ prior knowledge affects sense-making, a teacher’s attempt to make sense occurs in terms of existing practices (Schmidt & Datnow, 2005). This is what all learners do - we encourage it in our students and recognize the construction of knowledge is critical to understanding.

If professional development feels disrespectful, it may be because it does not honour the prior knowledge of teachers (Schmidt & Datnow, 2005). Previous knowledge combined with emotion leads to unique understandings of policy messages. "Each decision teachers make, each action they take, is simultaneously a consequence of past action and present context and a condition shaping the context for further action" (Hall & McGinty, 1997 as cited in Schmidt & Datnow, p. 900). Different interpretations of reform result in differing levels of implementation (Schmidt & Datnow, 2005). This is the heart of constructivism.
Professional Vulnerability

Professional vulnerability is the ability to be willingly open because it is safe to take risks. If it is safe to take risks does this lead to increased levels of empowerment (Lasky, 2005). If people can own the change they will move forward (Schmidt & Datnow, 2005). To effectively collaborate, teachers need to have "shared understandings, values, and goals" (Lasky, p. 902). Schmidt & Datnow wonder what spaces exist for teachers to be able to do this without being told what these understandings, values, and goals must be? They argue that teachers need to be able to do and create together. People invited to own change is respectful (2005). An unwilling vulnerability can develop due to powerlessness. If it is not safe to take risks as this leads to decreased levels of empowerment (Lasky, 2005).

"Individual capacity is what an individual brings with him or her to the school setting" including personal commitment, a willingness to learn about instruction and to view learning as on-going, and substantive knowledge about reform ideas" (Spillane & Thompson, 1997 as cited in Lasky, p. 901). Teachers need to be internally motivated to do good things rather than externally motivated to not do bad things, as "the time these teachers committed to their work came not from "grudging compliance with external demands, but rather from a dedication to doing a good job and providing effective care" (Hargreaves, 1994 p 127 as cited in Lasky, p. 907).

While there are many barriers to educational change, community can help to build trusting relationships, build teacher knowledge and feelings of efficacy, and foster risk-taking and feelings of safety. By recognizing and addressing barriers, teachers can become persistent pursuers of professional knowledge and the knowing-doing gap can be closed.

Works Cited


