RESEARCH SERIES ON SCHOOL EFFECTIVENESS AND SCHOOL IMPROVEMENT: *Local and International Trends in School Effectiveness and School Improvement*

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TABLE OF CONTENTS

TABLES

FIGURES

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EXECUTIVE SUMMARY

Educational effectiveness research (EER) is a central point in almost every aspect of the improvement planning and policy making across any school board. The research process is considered complex, since it involves the consideration of multiple different factors that contribute to *what makes a good school* and of different *kinds of practices and policies* which need to be in place for educational change to take place.

This document presents the Toronto District School Board (TDSB) with current research that can be used to continue the conversation as it pertains to school effectiveness and school improvement. It is the goal of this report to provide the School Effectiveness and School Improvement teams with school improvement literature, which will support the foundation of a School Effectiveness and School Improvement Process moving forward.

Figure 1: Organization of the Present Study in Current Trends in School Effectiveness and School Improvement Research

Change in the desired direction in education is achieved by research answering questions regarding "what works and why" (school effectiveness) and questions regarding "what is the practice and policy" (school improvement). Both of these bodies of EER lead to effective school improvement.

The TDSB aspires to promote effective school improvement across the Board through its strategic directions, such as *making every school an effective school* and by *identifying disadvantage and intervening effectively*.

There is a global trend for educational systems to deliver high quality learning, and therefore increased pressure for sophisticated approaches in educational planning and improvement which will lead to educational change. School collaborative self-assessment within a moral framework maintains a critical position in this process as it is described by the Ontario *School Effectiveness Framework*. However, over the past several years a multitude of similar frameworks, programs, and processes have been completed in several countries (e.g., U.S.A., Finland, U.K., New Zealand, Australia, and Chile). These frameworks aim to improve student achievement and well-being by looking beyond the analysis of quantitative data to also provide qualitative feedback to school constituents.

Three evidence-based indicators suggested by the Ontario Ministry of Education include: best practices (teaching, learning, leading, planning), effectiveness (leadership at all levels), and improvement (pathfinding within all roles) in education. These interconnected indicators assist educators in aligning their efforts which drives educational change.

According to experts in educational research, practices (praxes) can be enhanced, and often a specific practice that yields best results can be labelled "*a best practice*" as long as they are practices that already possess a high level of widely agreed effectiveness. Walkthroughs have become

necessary devices to identify, promote and make public, classroom best practices. Experts also suggest that the second evidence-based indicator, *effectiveness,* can be promoted by investing in assessment, pedagogy, and different forms of professional development (PD). The third evidence-based indicator, *improvement*, must be linked to capacity building in education and governance which plays a critical role in any effort to improve educational effectiveness.

Practitioner-led, policy-directed research, research-led policy, and researched practice drive global attempts in producing school effectiveness frameworks (SEF) which are implemented at the system level. Selected exemplars of SEF from the U.S.A., Chile, Australia, New Zealand, Finland, and U.K. provide a glimpse into attempts to push educational research to identify specific indicators for school effectiveness.

In Ontario, the *K -12 School Effectiveness Framework (SEF): A support tool for school improvement and student success* was first released in 2010 as a self-assessment tool that supports the core priorities of the Ministry of Education, which are: high levels of student achievement, reduced gaps in student achievement, and increased public confidence in publically funded education. At the TDSB, schools collaboratively complete the school self-assessment process, with principals and vice-principals joined by superintendents aiming to generate a true community of expertise to improve student achievement for the whole school.

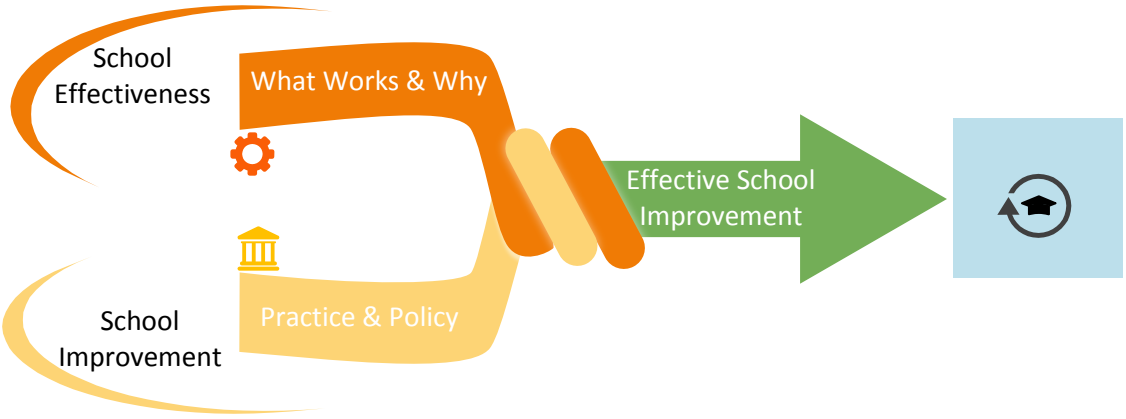
I. BACKGROUND AND RATIONAL

Two of the TDSB's strategic directions are to "make every school an effective school" and "identify disadvantage and intervene effectively" (Toronto District School Board [TDSB], 2015). Therefore, school effectiveness research becomes a central point in almost every aspect of the improvement planning and policy making across the Board. The focal point of school effectiveness research is "to find the factors of effective education that could be introduced or changed through school improvement" (Creemers & Reezigt, 2005, pp. 359-360). Reynolds, Teddlie, Creemers, and Scheerens (2000) described school improvement research as one of the major strands of school effectiveness which involves "examining the processes whereby schools can be changed utilizing increasingly sophisticated models that have gone beyond simple applications of school effectiveness knowledge to sophisticated 'multiple lever' models" (p. 3). As can be seen from these definitions "school effectiveness is more directed to finding out 'what works' in education and 'why'; school improvement is practice and policy oriented and intended to change education in the desired direction" (Creemers & Reezigt, 2005, p. 559).

One of the trends in the literature related to the enhancement of school improvement efforts is to link school effectiveness and school improvement to "effective school improvement" (e.g., MacBeath &

Mortimore, 2001; Reynolds & Stoll, 1996; Stoll & Fink, 1996; Stoll, Reynolds, Creemers, & Hopkins, 1996;). Creemers and Reezigt (2005) argued that even though school effectiveness and school improvement have different roots they can be combined in view of promoting effective school improvement (see Figure 2).

Figure 2: School Effectiveness and School Improvement Drive
Effective School Improvement



The TDSB aspires to promote effective school improvement across all schools. In doing so, District reviews (DR) and School Walkthroughs become essential instructional resources for the board to identify "what works" and "why" in planning and improving and changing teaching and learning towards the TDSB's strategic directions.

There is a global call for educational systems to move from "old bureaucratic models" to "new enabling ones" which are "flat [and] collegial" work organizations promoting high quality learning for all with strong accountability systems for students, "peers and stakeholders" (Schleicher, 2011). Therefore, increased demands for institutional excellence, transparency, and public accountability are essential drivers for the district and provincial level educational planning and improvement.

Much of the public accountability movement within the past decade has emanated from a simple appeal from not only the public but from key researchers, educators, and stakeholders alike, who similarly request that,

> ... teachers and school leaders have the mindset 'Know thy impact'. This leads to closer attention on the impact of the adults on the learning of students, demands they seek evidence of student responses to their interventions, and begs the moral purpose question about the nature of worthwhile domains of understanding that the impact is meant to enhance. (Hattie, 2013, p. 1)

To understand impact, each of us must consider varied moralities, accountability pressure on educational institutions, and the inner care of schools' efforts to improve their work from the core (Michek, Milan, & Martin, 2013), all of which appear to contribute to a useful strategy for identifying the quality of learning and effectiveness of schools. A regional example of the impact of this combination of forces can be gleaned from the Ontario School Effectiveness Framework (SEF), which includes basic enduring stakeholder beliefs that guide the school self-assessment process within a moral framework:

- Self-knowledge and self-efficiency are as important for schools as they are for individuals
- Reflective, self-critical schools are better schools for teachers and students (Ontario Ministry of Education, [OME], 2008, p. 11).

Ideally, the impactful school self-assessment unfolds as a collaborative activity with open, straightforward discussion about school successes and needs (OME, 2008). If school self-assessment is to be successful, certain traits must be evident:

- Clear communication
- Personal and professional support, where needed
- Shared leadership so that appropriate stakeholders are involved in decision making
- A willingness of teaching staff to share ideas, to explore, to build commitment and to mentor one another. (OME, 2008, p. 12)

Over the past several years, comparable frameworks, programs, processes, and evaluative reviews have been completed in most countries (Education World Forum, 2015; Masters, 2012; Ryan & Date, 2012). For example, research conducted in the Netherlands illuminates the positive impact of self-evaluation. ZEBO (Dutch for *Self-Evaluation in Primary Schools*), is a self-evaluation instrument for Dutch schools that "was developed on the basis of school effectiveness research findings and input of teachers and principals" (Schildkamp, Visscher, & Luyten 2009, p. 70). In the United Kingdom the development of *High Reliability Schools* relied on external reform processes, which proved necessary for positive outcomes and development (Stringfield, Reynolds, & Schaffer, 2010). Reviewing the literature, Nelson and Ehren (2014) emphasize the "importance of high quality feedback to schools … [I]t is the way that it is provided that is important if the feedback is to lead to improvement in student outcomes" (p. 8). This is a data-driven era, and the abundance of data gathered over the past few years has many stakeholders calling for a pause to refocus and regain perspective. It is time to look beyond the amount of educational data and towards the quality of the evidence gathered (Thessin, 2015). Knowing test scores over the past 5 years does little to improve pedagogy in classrooms and parents are looking for qualitative feedback as well as test results.

Education leaders understand that communities and parents (guardians) have a pronounced influence upon the performance of students (Morazes, 2011). In an analysis of 43 nations, Nonoyama-Tarumi and Willms (2009)

determined that the relationship between parent education and student academic achievement was evident since "the correlation … is present across grade levels and a wide geographic range" (p. 156). It is noteworthy, however, that most research outcomes are problematic since there are often "… large differences in the average effect sizes found across meta-analyses and small effects and little generalizability across countries found in international studies" (Scheerens, 2015, p. 27). Hence the need to examine the Ontario SEF longitudinally to infuse discussion of school district transformation and performance with current knowledge that can inform and guide a discussion of school district growth and achievement (Education World Forum, 2015; Ryan & Date, 2012).

The DR and School Walkthroughs process can be impacted by Bandura's (1997) *Theory of Self-Efficacy*, which suggests an educator's beliefs about their capabilities to perform (self-efficacy) is formed within the first few years and "once it is developed, it is very resistant to change" (Garvis & Pendergast, 2011, p. 5). Consequently, it is necessary to focus any DR and School Walkthroughs process on the cultivation of PD within a context of onward movement, growth, and transformation in an informed and research-guided manner that may minimize resistance to change (Whylie, 2012).

A commendable developmental review within a school district is built upon many sources of information. These data lead to the unfolding process of building a framework which is iterative, "requiring a steady movement between concept and data, as well as *comparative*, requiring a constant comparison across types of evidence to control the conceptual level and scope of the emerging theory" (Orlikowski, 1993, p. 310). Miles and Huberman (1994) suggest a framework "lays out the key factors, constructs, or variables, and presumes relationships among them" (p. 440).

Indeed, “every concept has components and is defined by … [the] components, or what defines the consistency of the concept; its endo-consistency; are distinct, heterogeneous and, yet, not separable” (p. 19). Nonetheless, most school district emergent frameworks address and embrace concepts awkwardly within subsections due to supposed conceptual divisiveness. The entire DR and School Walkthrough is the sum of its parts and should be viewed in this manner since the mission herein is to develop not only a framework but also a conceptual background, which is demarcated as a network or “plane” of linked concepts that together provide a comprehensive understanding of a phenomenon (Jabareen, 2008). In developing this framework, the search for data has been global, unlimited, broad, and deep. A goal of this review is to construct a preliminary model (image) that draws together data, theory and concepts within an educational SEF.

The Education World Forum (2015) has concluded:

> Governments around the world are under growing pressure to improve their education systems. Rising spending is increasingly being matched by reforms to help disadvantaged children, invest in teachers and improve vocational training. But a widespread lack of evaluation of the impact of these reforms could hinder their effectiveness and hurt educational outcomes, according to a new OECD report launching at the Education World Forum 2015**.** (para. 1)

The need to reform, evaluate, and refine is obvious, as “most countries, among them those at the top of the international educational rankings, are reforming their education systems to provide their citizens with knowledge and skills that enable them to engage actively in democratic societies and dynamic, knowledge–based economies” (OECD, 2000; Riley, 2004; as cited

in Sahlberg, 2009, p. 2). One remarkable example is Finland, a top-ranked education system that invests 30 times more funds into the PD of teachers and administrators than into evaluating the performance of students and schools, including testing. In testing-intensive education systems, this ratio is the opposite, with the majority of funding going to evaluation and standardized testing (Sahlberg, 2012). A re-emphasis on PD is something educators have been requesting for many years (Ryan & Soehner, 2011) because "the costs of standardized assessments are disproportionate to their value and ... the money and time could be spent on education. In some countries, such as Finland, national tests are at a minimum but performance in international tests is outstanding" (Hargreaves, 2010, p. 12). However, as Fullan (2011) points out, redirecting funds to PD alone may not be effective in other countries because:

> High-stakes accountability will only motivate a small percentage of teachers and, even if motivated, only a minority will know what changes to make in instruction to get better results … The right drivers – capacity building, group work, instruction, and systemic solutions – are effective because they work directly on changing the culture of school systems (pp. 5-9).

What is hopeful in Ontario is that current developmental reforms and capacity building do embrace the constructivist theory of John Dewey and the *Competency Model* developed by Gonczi and Hager (Gonczi & Hager, 2010; Ultanir, 2012). Dewey, a well-known theorist and education philosopher, has prompted many educators to learn that "knowledge is never acquired passively, because novelty cannot be handled except through assimilation to a cognitive structure the experiencing subject already has" (Glasersfeld, 1995, p. 11). Therefore, constructivism places great emphasis upon the learning process and group work, including

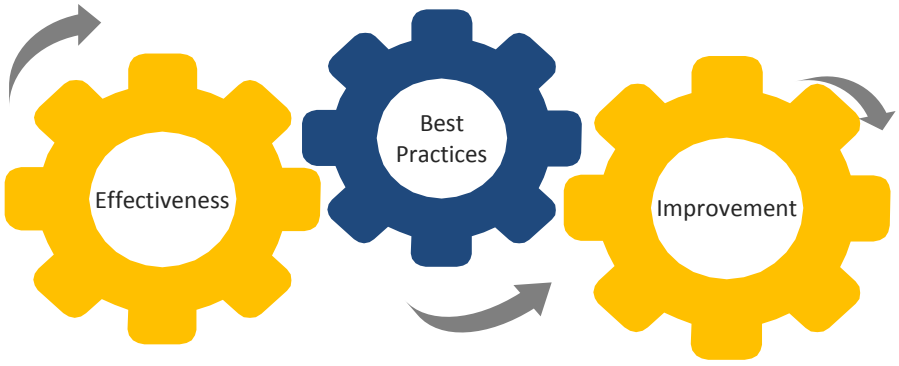
"knowing as a process [with less attention on the end product] rather than knowledge as a product" (Ultanir, 2012, pp. 196-197). Dewey believes that a true education is achieved through active experiences which emphasize worldviews, and which in turn are critical components of problem solving (Ultanir, 2012) within a review process.

Indeed, "reforms have provided a multifaceted 'imagined' horizon rather than a single standard of success" (Ryan & Joong, 2013, p. 26), where both the quantitative and qualitative sources of information are valued. However, reflecting upon reviews completed globally to this point in time "… most focused on: supporting disadvantaged children and early childhood care; reforming vocational education systems and building links with employers; improving training and PD for teachers; and strengthening school evaluation and assessment" (Education World Forum, 2015, para. 1). Ontario district reviews (DR) are in line with efforts worldwide to reform education via a developmental process (systemic solution) that is naturalistic, measurable, and cognizant.

II. EDIFICATION IN EDUCATION

The Ontario Ministry of Education suggests "certain evidence-based indicators of successful practices in effective schools. The indicators … assist educators in building coherence and alignment practices across the entire school" (2010, p. 1). Figure 3 depicts some of these indicators: best practices (e.g., teaching, learning, leading, and planning), effectiveness (e.g., leadership at all levels) and improvement (e.g., pathfinding within all roles) in education.

Figure 3: The Interconnecting Nature of Best Practices, Effectiveness, and Improvement



BEST PRACTICES

Practice can be understood via the term praxis. Praxis can be "used as a noun, it has dual meanings" it can include "practical application or the exercise of a branch of learning" or it "could indicate habitual or established practice, as in a custom or classroom", whereas, the plural form (praxes) "could be used to indicate several branches of learning or established practices and customs often located in educational systems" (Ryan, 2013, p. 5). Teaching praxes regularly unfold in a planned and deliberate manner (Ryan & Joong, 2013) within classrooms. Praxes can be enhanced and often a specific practice that yields best results can be labelled "a best practice" as long as they are practices that already possess a high level of widely agreed effectiveness (Hargreaves & Fullan, 2012).

In order to observe and identify best practices in action there needs be observers, evaluators, and mentors (Tyler, Taylor, Kane, & Wooten, 2010). To observe and possibly appraise best practices, Looney (2011) suggests the use of teacher evaluations via multiple measurements (observations) that yield a clearer sense of teacher praxis. Multiple observations over time make it easier to detect relationships with students and communication patterns that lead to achievement (Grissom, Loeb, & Master, 2013; Looney, 2011), while frequently identifying best practices (Hargreaves & Fullan, 2012). Observers and practicing teachers also need to recognize how "praxis involves critical reflection and contemplation of one's actions and us[es] reflections to inform practice" (Gilpin, 2007, p. 2). However, educational language can cause misunderstanding and require a great deal of probing via clarifying questions of self and others to realize meaning. Eventually, meaning becomes clearer, shared, understood, and leads to deep reflection and communal best praxes (Ryan, 2013b).

A recent review by Cross and Joftus (2012) examined 29 schools in the public school system of Buffalo, New York. They concluded that "... few best practices were regularly observed in classrooms; data indicate that the instructional rigor in

the above public schools needs to be ratcheted up. Teachers need more training on, and support for high-impact strategies to improve the effectiveness of their instruction" (p. 4). Cross and Joftus (2012) add,

> …change management best practice suggests that large transformation projects establish success early to build momentum for ongoing change. The proposed strategic talent management plan should include concurrent project work streams addressing the key levers … These work streams allow more opportunities for the district to demonstrate success, with specific wins identified, achieved, and communicated early in the process. Quick wins should touch on each major stakeholder in the process, including HR staff, teachers, principals, and leadership. Possible quick-win opportunities include:
>
> • Training for current HR staff
> • Implementation of employee self-service
> • Incentives for hard-to-staff positions
> • Designated support staff for principals in an early version of a call center. (p. 68)

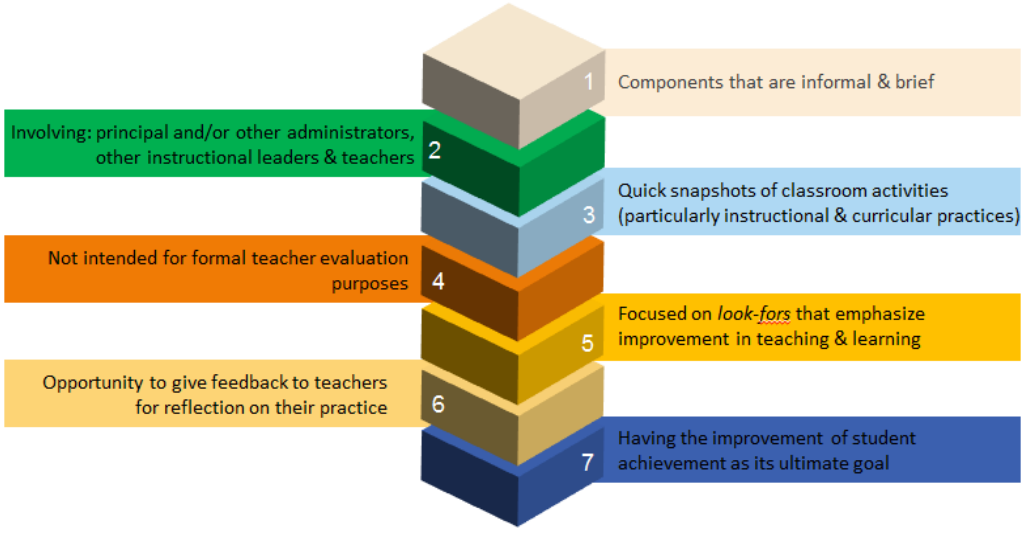
Identifying quick wins in any process can instil long-term life. The best way to win quickly is to provide support, PD, and incentives that reach all stakeholders. This process is communal and requires attention to detail and frequent contact.

Best Practices: Walkthroughs

To aid in communal development of best practices, the *walkthrough* has become a necessary device to identify, promote and make public, classroom best practices (DeBoer & Hinojosa, 2012; Stephens, 2011). A *walkthrough* can be understood as a three to five minute structured review by a principal or designate to realize and illuminate teacher efficacy (DeBoer & Hinojosa, 2012; Downey et al., 2004). Ginsberg and Murphy (2002) put forward a number of necessary steps to utilize walkthroughs, such as the notion of including other teachers as designates (partners) which supports Knight's (2011) belief that "when we give up our top-

down power and adopt a partnership approach to interaction, we replace the empty power we get by virtue of our position with the authentic power gained through choice" (p. 20). The walkthrough is a partnership. As such, coaching is prominent and "equality is a necessary condition... In true partnerships, one partner does not tell the other what to do; both partners share ideas and make decisions together as equals" (Knight, 2011, p. 18). Stephens (2011) suggests the learning walk has a Japanese origin and is a means to ensure instruction changes using evidence based teaching as a tool within the lesson study, coaching, and walkthroughs. These three modes share a common point: a partnership. Effective classroom walkthroughs include informal communication (feedback/coaching), observation of classroom activities, and focused *look-fors* that concentrate on improvement and are not intended as a formal teacher evaluation device but as a means to enhance student achievement (Kachur, Stout, & Edwards, 2009) (see Figure 4).

Figure 4: **Requirements of an Effective Classroom Walkthrough**



Source: Kachur, Stout, and Edwards (2009).

The walkthrough is a time for brief communication and coaching. Grissom et al. (2013) completed a longitudinal study and found that time invested in coaching teachers about their own instructional practice and evaluating

teachers and curriculum realized greater school effectiveness (p. 12). The walkthrough is an investment and a literal pathway to improved instruction and increased student achievement, which Colvin and Johnson (2007) found to be correlational. Communications during the walkthrough can be made more efficient by using a digital application uploaded to a smart phone or tablet. The following table details jurisdictions where the walkthrough, or a version of the same, is geographically located and how it may be understood.

Table 1: Walkthrough Resources

Jurisdiction	Name of Framework	Summary & Link
Massachusetts Department of Elementary and Secondary Education	Learning Walkthrough Implementation Guide	This Implementation Guide supports instructional leaders as they establish the Walkthrough process. Districts are encouraged to build on this guidance, using data and self-reflection to customize the approach to meet local needs and improve teaching and learning. http://goo.gl/AeQ6rn
Parma City School District (Ohio)	Walkthrough template	This is a walkthrough template that the Parma City School District in Ohio uses. http://goo.gl/9ThW5W
Hamilton Wentworth DSB	Best Practices in Walk-Throughs	This research summary includes key research findings about walk-throughs (2009). http://goo.gl/5eMJC2
School District of Philadelphia	Walkthrough Framework	Walkthrough framework for the School District of Philadelphia. http://goo.gl/trVZmU
La Grange Area Department of Special Education (Illinois)	Classroom Walkthroughs to Improve School Operations	A detailed presentation of a learning walk workshop offered to the department. http://goo.gl/ZncdHH

The incorporation of walkthroughs is one option on the path to improvement in classrooms, schools, and systems (districts/divisions) (Cervone & Martinez-Miller, 2007; DeBoer & Hinojosa, 2012). The walkthrough is a means of teacher development and can be utilized as a collegial tool by administration or designates to walkthrough either individually or with a group (team) embracing partnerships (Fullan, 2015). The option to designate another teacher in the walkthrough process leads to a teacher-to-teacher walkthrough approach, which mimics praxes in top-performing nations such as Finland and Singapore. Top performing nations in international competitions have invested time and money into teacher development and leadership quality by creating policies and programs to ensure that practitioners can learn from each other and spread their expertise (Darling-Hammond, 2014; DeBoer & Hinojosa, 2012). The key with any investment is to ensure the investor is well informed, current, and ethically aware.

Scott (2012) investigated four elementary school districts in Kansas (U.S.A.) and determined that their data could be used to improve the effectiveness of the school and teachers. However, stakeholders stagnated at points during the implementation process due to inconsistent sense of purpose, desperate visioning, communication issues, educational policy interference, and lack of agreement on the number of walkthroughs needed prior to engaging in the dialogue. Admittedly any undertaking can become confusing for participants and communication challenges surface daily in all schools (systemically), still there were positives to be found causing the researcher to conclude:

> The research supports the concept that conducting classroom walkthroughs leads to: increased student learning, instruction of higher quality, and more effective professional development.

> School principals must continue to monitor the use of research-based instructional strategies and the effectiveness of prior job-embedded professional development. The classroom walkthrough process provides a means to do both in schools where increased student learning is the ultimate goal. (p. 125)

These conclusive statements build on Knight's (2011) position that, "professional growth comes from reflecting on what you're learning. When professionals are told what to do - and when and how to do it, with no room for their own individual thought - there's a good chance they're not learning at all" (p. 19). This suggests that educators in various positions within the traditional hierarchy need to partner and work outside their position in the system to promote reflection, learning, and growth. In a recent article in *Canada Education,* Fullan (2015) admits something many teachers already know: "top-down leadership doesn't last even if you get a lot of the pieces right, because it is too difficult to get, and especially to sustain, wide-spread buy-in from the bottom" (p. 24). The need for partnerships, coaching, communal work, and improvement can begin with the walkthrough resources noted above and in Table 2.

Table 2: Additional Walkthrough Resources

Source	Abstract/Summary
Walker (2005)	Surveys of teachers and principals (creating a positive school climate) suggested the need to: 1. treat students and teachers fairly and equally 2. communicate with students and teachers 3. support students and teachers 4. model caring behaviors 5. be visible and available 6. lead learning 7. focus on teaching and learning 8. create opportunities for professional learning
Payne (2010)	This mixed methods case study describes one middle school's journey with walkthroughs. Classroom walkthroughs work best in school climates that have an established level of trust between administrators and teachers. Walkthroughs, with

Source	Abstract/Summary
	classroom observations led by all teachers in the school, allow teachers to engage in professional dialogue.
Cunningham (2012)	Examines how walkthroughs operate in practice and how they were experienced by school administration, teacher leaders, and teachers at two schools within the same suburban district. Interviews illustrated that experiences were varied using the classroom walkthrough protocol. Continued PD needed to occur with administrators and teachers. There was confusion with teachers as to the vision, purpose, and goals of using classroom walkthroughs. Changes in leadership during the five years since implementation and young administrators, who were relatively new in their positions, helped shape school experiences.

Best Practices: Technology

Technology is a commonplace word in education and one that needs to be included as it emerges as a tool in many best practices within online communities. For example, the United Federation of Teachers creates networks for instantaneous PD for educators (Scragg, 2013). Time, pace, access, and quality dictate the frequency of teacher usage; however, online PD opportunity presents an authentic alternative for the sequestered educator who may not be able to find time for traditional PD. Even the walkthrough can be made more efficient by using a digital application for walkthroughs that can be uploaded to any smart phone or tablet. Researchers Fong and James (2015) highlight examples of digital PD:

> … sources of professional development can be found by following Twitter hashtags relevant to the topic of digital literacy. There is also a widget where the @bcdiglit Twitter feed can be constantly streamed and updated, with a "follow" button to encourage readers to connect. Two sources of professional learning can be found through the Common sense educator's network and through Google's curriculum. (p. 1)

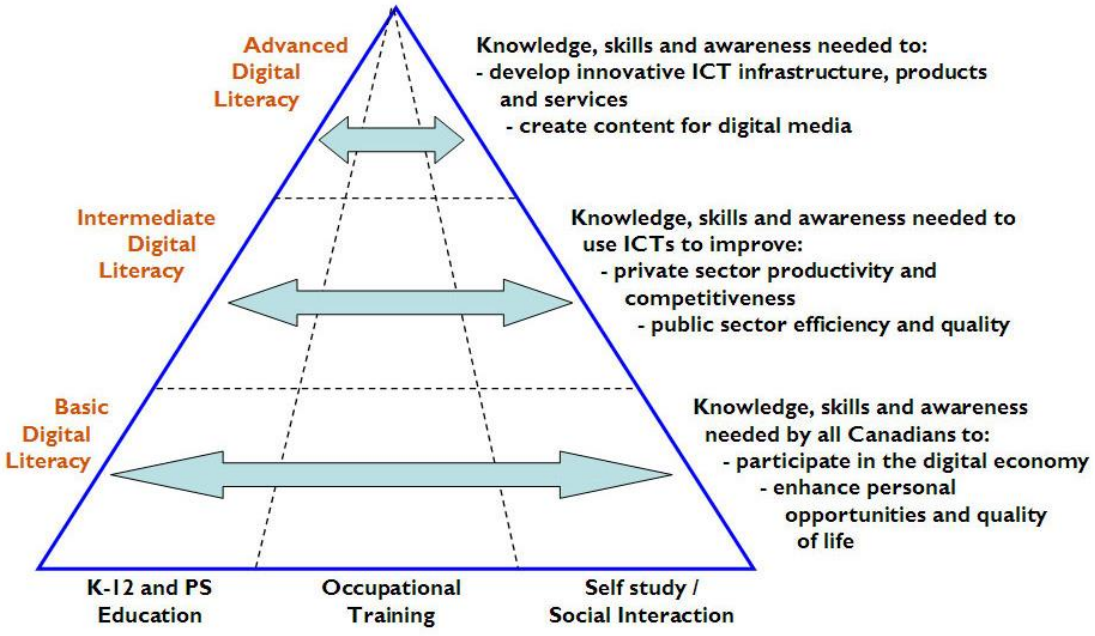
Some may argue that technology is a means to escape the bureaucratic scholastic jungle to get quick answers, reduce isolation, and locate PD online (Fong & James, 2015). Online teacher communities of practice "are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger, 2014, p. 1). Indeed, we "are in a time where students are teaching teachers about emerging tools, while teachers are trying to teach the students about the bigger picture. Some view technology as a hindrance, not a tool" (Fong & James, 2015, p. 5). However, technology via online communication is a daily reality for our students and educators, hence all educators need to become digital citizens, informed and guided within this digital environment. As a best practice, educators can turn to local guidelines or research-based positions such as Ribble's (2012) digital citizenship landscape statement:

1. Digital Access: full electronic participation in society – allowing all technology users to participate fully in a digital society if they choose.
2. Digital Commerce: electronic buying and selling of goods – providing the knowledge and protection to buy and sell in a digital world.
3. Digital Communication: electronic exchange of information – understanding the options of the digital communication methods and when they are appropriate.
4. Digital Literacy: process of teaching and learning about technology and the use of technology – learning about and teaching others how to use digital technologies appropriately.
5. Digital Etiquette: electronic standards of conduct or procedure – being considerate of others when using digital technologies.
6. Digital Law: electronic responsibility for actions and deeds – having an awareness of laws (rules, policies) that govern the use of digital technologies.
7. Digital Rights and Responsibilities: those requirements and freedoms extended to everyone in a digital world – protecting the digital rights of others while defending individual rights.

8. Digital Health and Wellness: physical and psychological well-being in a digital technology world – understanding the risks (both physically and psychologically) that may accompany the use of digital technologies.
9. Digital Security (self-protection): electronic precautions to guarantee safety – protecting personal information while taking precautions to protect others; data as well. (p. 150)

Presently, and in the immediate future, all teachers need to be digitally literate, and become digital citizens to leverage best practices in teaching (Fong & James, 2015, p. 5; International Society for Technology in Education, 2008). Similar standards are available for administrators and students (ISTE, 2009, 2007) when using Information and communications technology (ICT) as depicted in Figure 5 with its placement of education and related digital literacy levels below.

Figure 5: A Digital Literacy Perspective on Digital Economy Skills Challenges



Source: MediaSmarts (2016). (Used with permission)

Think, Respect, and Thrive Online (Curriculum, 2015) is a review of a fresh digital citizenship resource for Ontario elementary school teachers and students which intends to become a necessary element of best practices in both in-service and pre-service education. “The resource consists of a print curriculum document and a USB flash drive containing reproducible lesson materials in English and French. This resource provides ETFO members with lessons to use with students from ELKP to Grade 8 that will assist in teaching digital citizenship skills” (Curriculum, 2015, p. 1).

EFFECTIVENESS

Barber and Mourshed (2007) proposed that “the quality of an education system cannot exceed the quality of its teachers”, therefore “the only way to improve outcomes is to improve instruction” (p. 13). They also claim that “achieving universal high outcomes is only possible by putting in place mechanisms to ensure that schools deliver high-quality instruction to every child” (p. 40). Accepting these views, the logical next step is to develop a system to oversee mechanisms and focus on instruction and teachers who are the front line people who can change student outcomes directly and daily (Starrett, 2015). The challenges are obvious. The correct oversight mechanism(s) and the people implementing the oversight need to be doing this effectively. Teachers need to be coached, involved, and partners in the quest for effectiveness. The need to identify effective pedagogy is the next hurdle.

Researchers have long debated about effective pedagogies. Westbrook et al. (2013) have “. . . conceptualized ‘effective’ pedagogy as those teaching and learning activities which make some observable change in students, leading to greater engagement and understanding and/or a measureable impact on student learning” (p. 8). The term effectiveness requires context such as assessment, pedagogy, or leadership to make the abstract notion of effective

something concrete, less tacit and tangible, hence the need to link effectiveness with a context such as teaching. Indeed, the notion of making some observable change in students leading to greater engagement and understanding and/or a measureable impact on students is an important underpinning of effectiveness in any educational context. Starrett (2015) adds, "an effective teacher provides students with positive outcomes-both socially and academically" (p. 31).

Take for instance the ongoing review of educational praxes and substantive feedback concerning professional practice which has a key position within school effectiveness/improvement research and numerous organization-centred studies suggest it is critical within school improvement schemes (Higham & Hopkins, 2007). Several school-level investigations of teacher quality improvement noted that feedback and analysis are fundamental to improvement (Hattie, 2012). Burgess (2014) determined, that "teacher effectiveness is consistently recognised as the major within-school influence in student learning, [yet] exact estimates of teacher effectiveness are difficult to ascertain" (p. 43). There is also a need for clearer expectations about the role and responsibility of the school board and each employee. One important observation in research concerning school improvement was noted by Thessin, (2015):

> When data [are] … used as part of an ongoing improvement cycle that involves regular collection and systematic analysis of evidence, teachers can change their instructional practice to improve student achievement. To achieve this goal, the school leader must share leadership with teachers in leading a school wide improvement process, and central office must prioritize developing principals' instructional leadership skills. (p. 73)

The oversight mechanism and the overseers need to be effective leaders. Effective *leadership* cannot and should not be overlooked in any attempt to improve effectiveness. This idea leads Mulford (2013) to conclude that "effective principals influence student outcomes indirectly through teachers' work with students in their classrooms and school" (p. 26). The same conclusion was reached by an Ontario study completed by Ryan and Soehner (2011). Current research proposes that administrators need to be *instructional leaders*, focus on PD, monitor and assess the teaching process, and create a positive school climate (Gulcan, 2012). These are not impossible tasks. However, in some schools if partnerships (delegation/designation) and communities of practice (coaching/capital) are '*wanting*', then these missing rudimentary elements can overwhelm leadership (Masters, 2014). Perhaps this is why Horng and Loeb (2010) insist that instructional leadership must include "broader personnel practices and resource allocation practices" (p. 66). This is not really new information, but it needs to echo *again and again* as new school administrators are introduced and to remind experienced administration to refocus.

Since the late 90s it has been understood that "teacher effectiveness, and ultimately student performance, will improve when administrators spend more time observing, coaching, and conferencing with teachers" (Frase, Downey, & Canciamilla, 1999, p. 38). It could be purely a logistical question for TDSB administrators concerning time, place, and space to do this or it may be more a matter of deciding what type of leadership suits TDSB current needs. Harris (2008) proposed the concept of distributed leadership, which suggests leadership is neither an event nor individual (singular). Leadership results from multiple interactions at different places in an organization. While it is true that the type of leadership needs to suit a particular context within each unique learning institution, leadership adaptability is a strategic construct. Hargreaves and Fullan (2012) add:

> Continuous professional development pays off in Finland, Singapore, Alberta, and Ontario. The best way you can support and motivate teachers is to create the conditions where they can be effective day after day, together. And this isn't just about intra-school collaboration. It's about interschool and inter-district collaboration. It's about the whole profession. (p. 37)

An educator can always get better by investing time in PD. Building teacher professional capital can be understood as creating a school of effective teachers. It does not mean providing financial incentives. Research has shown that paying teachers to improve student performance did not lead to increases in student achievement and did not change what teachers did in their classrooms. In addition to being of questionable effectiveness, incentive schemes often result in unintended and undesirable behaviours on the part of teachers and schools (Masters, 2014, para. 8).

Investment can be in terms of time, attention, programming, support, coaching, partnering, research efforts and the like to realize high-quality teachers and teaching that builds teacher professional capital within the district, region, or province (Grissom et al., 2013; Hargreaves & Fullan, 2012). Using only financial incentives within an accountability framework (standardized testing) can lead to the "narrowing of the school curriculum, to withholding less able students from testing, [and] to providing inappropriate assistance to students during tests" (Masters, 2014, para. 6). Instead, building quality (effective teaching) is the best means towards a major positive influence in student learning improvement. This is more effective than ability grouping, class sizes (Hattie, 2009); or funding (Barber & Mourshed, 2007). However, despite some studies linking improved teacher effectiveness and student learning with schools organized around professional learning communities (Leithwood & Strauss, 2008) the reality of establishing collaborative teacher learning is complex (Louis, Dretzke, & Wahlstrom, 2010) and not easily achieved within the current timetable challenges.

Croft, Coggshall, Dolan, Powers, and Killion (2010) have pulled together PD modes such as, "action research; case discussions; coaching; critical friends; data teams/assessment development; student work/tuning protocols; implementing individual professional growth/learning plans; lesson study; mentoring; portfolios; professional learning communities; and study groups" (p. 6-7) to name but a few. While action research enjoyed some popularity in Ontario during the late 1990s and early 2000s, it has had to compete with data-driven decision making, professional learning communities (PLCs) and the like over the past 15 years. Each of the previously mentioned PD models can be uncovered somewhere in Ontario, to some extent; however, the type of PD activity most common is often due to individual teachers' efforts to professionally develop and is not a system-wide PD effort overseen by instructional leaders, such as principals. Principals may believe instructional leadership is of value, leading to higher levels of teacher effectiveness and student learning, yet the demands of school leadership upon time and professional isolation often inhibit its enactment (Mulford, 2013). Nevertheless, Kalule, and Bouchamma (2013) advise that the importance of providing teachers with the opportunity to reflect on strengths and weaknesses via guided questioning by a skilled instructional leader is perhaps the best investment a school district can make.

Iachini, Pitner, Morgan, and Rhodes (2016) recently completed a mixed-methods case study to elicit principals' perspectives on teacher, school staff, and student needs. The researchers attempted to uncover whether these perspectives are reflective of priorities emphasized in currently expanded school improvement models, such as mental health, family engagement, out-of-school time opportunities, and other youth development and learning supports. Twenty school principals from a school district participated in the online survey and a follow-up phone interview. The study found that the three utmost teacher and school staff needs reported by principals were health and mental health (85.7%),

support with families (71.5%), and training or information about student behavioral and mental health (70.0 %). Certainly, any new model must consider the health of the people in any system. The authors noted that there are few studies that elicit the principals' voices to uncover their perspectives about what contributes to improving our schools.

Recommendations:

Leadership is imperative in driving schools towards maximum effectiveness. A leader must set clear expectations about the role of the school board and each employee. Further, leaders must direct teachers towards viable and effective professional development and provide courteous, but critical feedback that helps them advance their teaching practice.

IMPROVEMENT

This research makes use of a definition of improving schools provided by Day et al. (2009) in their study of successful school leadership which states that improving schools are places where there are demonstrated and sustained student achievement gains over a number of years. Over time, small improvements lead to sustained improvement of practice within a school. However, any mention of school improvement (Hargreaves, 1995) must be linked to capacity building in education and governance, as this plays a critical role in any effort to improve educational effectiveness (Grandson et al., 2014, p. 48). Bryk, Sebring, Allensworth, and Luppescu (2010) emphasize the importance of a shared vision, goals, and clarification of values as a means to improve schools. Professional learning for self and others is required to realize a shared vision, goals, and values in any school. Fullan and Knight (2011) found schools that substantially improved "focused 78% of their interventions on professional learning" (p. 22). In addition, improvement can be sustained if it is guided by the refined beliefs of active researchers who have determined "…

the process of supervision can be instrumental in producing incremental gains in teacher expertise; which can produce incremental gains in student achievement" (Marzano et al., 2011, p. 3). While the development of teacher expertise (teacher capital) is desired, so too is the need for students to improve their own achievement; it is a dual vision. School administrators must lead academic improvements for all students. In doing so, leadership must embrace supervision and set out to improve teachers by providing occasions for educators to be learners (Mulford, 2013).

Glickman, Gordon, and Ross-Gordon (2010) describe the term *supervision* as a common vision "that is developed collaboratively and brought into reality together. It forms connections that focus organizational and individual goals, objectives and efforts into an overarching strategy" (p. 56). The supervisor is someone who assists, guides, directs, and oversees the people that he/she is managing; however, there is much more to being a supervisor than simply overseeing the jobs that people are doing (Langton, Robbins, & Judge, 2011). The supervisor is a leader of improvement, a builder of capacity in the system through the supervisor's efforts to help all to reach their full potential, and someone who helps to develop interpersonal relationships and a productive organizational culture (Dessler, Munro, & Cole, 2011). Of interest is the work of Marzano and Waters (2009) whose meta-analysis of "… studies involving district leadership (or variables related to district leadership) and student academic achievement in the United States from 1970 until 2005 […found] a correlation between district leadership or district leadership variables and student academic achievement" (p. 12). The quality of superintendent leadership does and can improve student achievement (Marzano & Waters, 2009). Thus, researchers suggest there is a positive correlation between effective school district leadership and leadership development as a strategy for improvement of academic outcomes (Grandson et al., 2014). Indeed, "… successful countries treat their teachers as nation builders, and how they come

to yield high returns in prosperity, social cohesion, and social justice" (Hargreaves & Fullan, 2012, p. 185).

Looking to yield high returns in education is not something unfeasible as leading countries (Finland, Singapore) have demonstrated. What is required is identification and means to achieve high returns by following a path of improvement within our Canadian context. One such opportunity can be observed within *mentoring* which can increase teacher retention, satisfaction, and student achievement (Ingersoll & Strong, 2011). According to Beltman, Mansfield, and Price (2011), mentoring has also been able to diminish feelings of isolation when the mentor is positive, pro-social, professional, and from the same teaching area. Another alternative to reduce isolation and increase the possibility of mentoring is co-teaching. Loertscher & Koechlin (2015) recommend two approaches that may offer school improvement and promote participation within the school:

> … culture that aims for excellence: the first is the transformation of the school library into a learning commons, and the second is the strategy of co-teaching between school specialists and classroom teachers … where everyone participates as a teacher and as a learner. (p. 12)

Historically, we have seen open-concept teaching and team-teaching in larger rooms (pods), but these trends may work with one class and not another depending on the partners teaching and ultimately the cost to fund such a strategy may eliminate this in the planning stages. Nonetheless, this may indeed work in some schools and in some situations and is worthy of mention.

Recommendations:

Stakeholders (leaders, teachers, supervisors, principals, superintendents) can play equal roles in school improvement by employing best practices espoused in current literatures. Improving teaching is really one element within a larger

landscape of improvement, as many research studies have suggested that there is a need to link ". . . curriculum (reforms) to teacher education and pedagogy, as curriculum reforms are often designed and implemented without parallel reforms in initial teacher education and continuing professional development" (Westbrook et al., 2013).

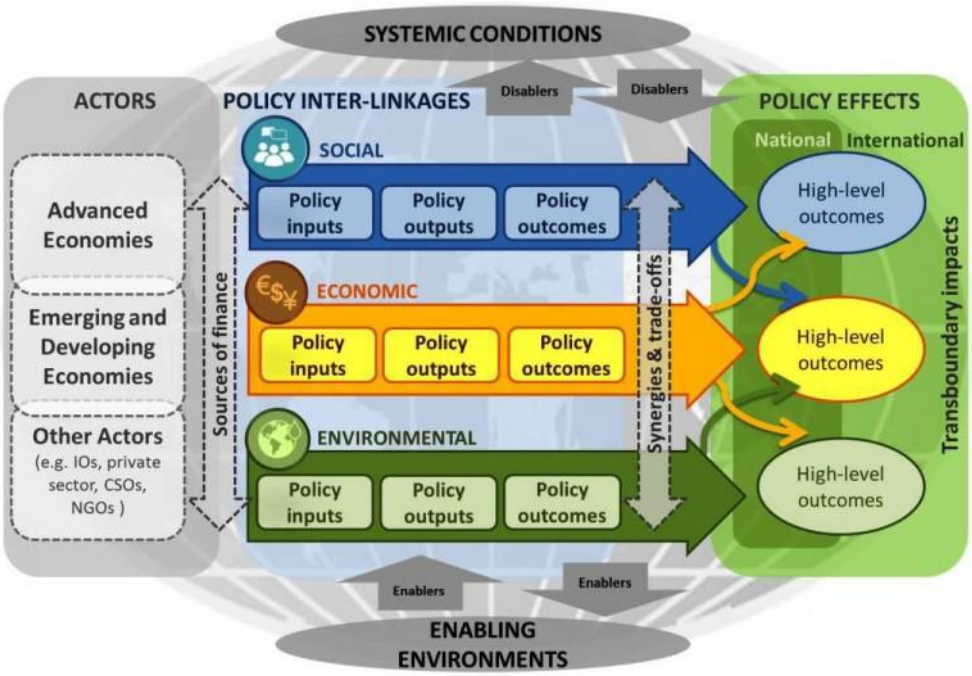
III. INTERNATIONAL TRENDS IN EDUCATIONAL EFFECTIVENESS RESEARCH

For a number of years, the developmental review process has been unfolding in educational organizations globally (Hallinger & Heck, 2011). We know that school organizations which share decision-making produce superior outcomes (Hulpia, Devos, & Van Keer, 2011); hence the developmental review process is not only a process, but also an opportunity to share while engaging in a cause beyond oneself (Glickman et al., 2010). Nonetheless, many schools and systems are still not using this knowledge base to formulate their approaches to instruction, education, and system level change and improvement (Harris et al., 2013).

To access this knowledge base there is a need for PD at all levels to increase awareness and infuse current system change efforts with a means to impact a slow moving institutional culture. Vast reviews are useful if they are placed into the hands of those who can make sense of the information and are given the time to read, discuss, and reflect upon the latest research. Implementation, reception, and support can ensure steady movement to avoid stagnation and disconnects.

Ebba Dohlman, a Senior Advisor of Policy Coherence for Development with OECD, offers this image of an Analytical Framework for Policy Coherence for Sustainable Development (see Figure 6).

Figure 6: Analytical Framework for Policy Coherence for Sustainable Development



Source: Dohlman, (2016)

Dohlman (2016) explains:

> Against this background, the OECD is developing PCSD Framework, a self-assessment policy toolkit, aimed at providing policy-makers with practical guidance on: (i) setting up institutional mechanisms for coherence, including political commitment and leadership, coordination capacity and monitoring systems; (ii) managing policy interactions at different levels to detect and resolve policy conflicts; (iii) addressing contextual factors that enable or impede coherence for sustainable development; and (iv) anticipating the unintended consequences of policy decisions. (para.4)

This is also central to the TDSB's purpose, as there is a need for self-assessment and knowing what and where to look when self-assessing.

Evidence is strategic, as is coaching that *enables* all to move forward in a sustained manner. However, often it is the mechanism that causes a well-planned initiative to slow and/or fail hence the need to get suitable mechanisms in place that work.

To implement mechanisms, the TDSB requires (distributed) leadership at all levels and monitoring that is both unambiguous and comprehensive. The progress towards a goal requires TDSB directives, persistence, and embracement of the unintended outcomes, as learning can occur from missteps as well. If these fundamentals are in place and change happens to meet expectations, then sustainability is verified. The analytic framework (see Figure 6) is a tool to help us focus, observe, and monitor just as the SEF can be used to oversee change. As Dolman (2016) explains, the image is a means to depict "a self-assessment policy toolkit, aimed at providing policy-makers with practical guidance" (para 4).

In the past, the "'whole-school design' approach combined elements from the school effectiveness and school improvement frameworks. The evidence to date, however, suggests that many of these external interventions, although very well-intentioned, have had patchy and variable success" (Borman et al., 2003, as it is cited in Harris et al., 2013, p. 9). Nonetheless, Durand, Lawson, Wilcox, and Schiller (2016) explain, "crafting organizational coherence is not an outcome. Rather, it is an ongoing process that depends on competent leaders, particularly those skillful in adaptive leadership" (p. 50). One must be flexible and realize that all leaders have strengths; there is a need to match the leader with the challenge and not just expect all leaders can do it all equally. Some leaders are good at bridging (communications) strategies, some at buffering (protecting others from harm) strategies and/or brokering (getting agreements with others), and some may only have one outstanding skill

(Durand et al., 2016). Leaders need to acknowledge each other's skills/capacities, and work organically from this base line of acknowledgement to move away from what was/is known (status quo) to an outcome that may be unexpected yet desired.

The bottom up and inside out is something quite different from whole-school change. PLCs in "Wales, Canada, Belgium and many other countries, [began] practitioner engagement through professional learning communities and/or professional networks [and are] . . . the key lever for building system-wide capacity for productive change and improvement" (Harris et al., 2013, p. 10). Naturally, any attempt to change within a school district/division or system is burdened with resistance from various stakeholders, union concerns, and practitioners who may be unhappy with the constant trending in education in order to improve. This opposition, often a feature of teacher fatigue (Ryan & Lielkalns, 2013), could be the reason behind the latest realities in school change. Harris et al. (2013) note that "many school improvement researchers and practitioners [stay] away from classrooms and schools and [instead dig] deeper into policy generation and system reform" (p.10), from the outside via government initiatives. What is certain is that "it is the dynamic interaction between research, policy and practice that matters most of all. Therefore, we need more practitioner-led research, more policy-directed research, more research-led policy and more researched practice … to generate a true community of expertise" (Harris et al., 2013, p. 15). We can look globally for exemplars of this process in play.

U.S.A.

In California, to review each school's progress, regular assessment takes place (called School Transformation Reviews) "in the fall of the initial year of a partnership (which generally lasts three to five years) and in the spring of each subsequent year. They consist of interviews and classroom observations and are guided by our School Transformation Rubric" (Edwards, 2014, p. 30). The school districts in California have developed a large 76 item, eight page rubric that is used to facilitate growth and transformation in a rigorous manner. Rigor signifies precision, and within scientific work, intellectual rigor refers to thorough research (qualitative or quantitative) communicated accurately (Karagiorgi, 2012). Participants engage in a cause beyond oneself while participating and developing professionally (Ryan & Telfer, 2011). The California rubric is recognized to be essential to transforming schools and is organized into three domains: results-oriented leadership, systems for professional learning, and the core instructional program. Edwards (2014) examined the rubric and noted how over 20 items are related to equity in education.

Redding and Rhim (2011) illuminate actions in nine U.S. states and report on their evolving approaches supporting school improvement via the building of district and school capacity to support change. Redding and Rhim (2011) conclude:

> Building a strong system of support requires pruning away ineffective programs, policies, and regulations as much as creating effective initiatives to spur district and school improvement. As states and districts have adopted a systems approach to school improvement, they have realized the necessity of restructuring their own offices, establishing and aligning relationships with external partners, and streamlining the coordination of the various

> personnel, departments, and organizations that form the system of support (p. 39).

Clearly, within the nine states transformation is occurring via assessment and evaluation, restructuring, partnerships and efficiency efforts. School Improvement Grants (SIG) are providing the funds to move forward and it is these funds that pay for the people that power transformation. School Improvement Grants enlist the expertise of external partners and organizations with experience and track records of significant school improvement (for more information see Redding, Dunn, & McCauley, 2015).

The study by Cross and Joftus (2012) in the Buffalo public school system included interviews and focus groups with 245 district staff and stakeholders. The review involved an examination of electronic data and printed documents, including student outcome data, curricular materials, budgets, organizational and staffing charts, compliance communications from the state, human resource transactional data, policy documents, and descriptions of student support services. Teacher, school administrator, and school staff surveys (with 31%, 45%, and 10% response rates respectively) provided additional information about district-wide instructional practices, human resource practices, and student supports. The research yielded many useful findings, but one key point resonates:

> creating a culture in which all school and central office personnel regularly share observational data, discuss formative assessment data relative to intervention implementation, identify and implement new programs or interventions based on student achievement trends, use evaluation data to make decisions about educator promotions and rewards, etc. **could take years** [emphasis added]. (Cross & Joftus, 2012, p. 80)

The need for realistic projections in terms of the time required to improve via any given model, policies, and/or praxes remains important since improvement is not a switch that can be turned on.

Chile

In South America, Chile has developed the School Management Quality Assurance System (SACG), which currently involves assessment phases and an accountability element that is aimed at improving classroom practice and school management.

> SACG purported to provide schools with tools that could generate an evaluation culture, accountability processes, and improvement . . . When schools entered SACG, the staff had to engage in three phases: (a) assess key management practices in five management areas; (b) design, implement, and monitor an improvement plan; and (c) report to the community. For each practice, schools needed to produce evidence of the level of implementation and score this evidence following a rubric provided by the system. A self-assessment report containing the evidence and scores was elaborated and submitted to an external appraisal panel (Montecinos, Madrid, Fernández, & Ahumada, 2014, p. 242).

The school review process is recursive and necessary as the digital age has augmented the pace of change globally and placed covert pressures on educational institutions to change while evolving. The need to identify and support all schools regardless of level of performance is understandable. In Australia, for example, each of the 1,257 schools in the Australian school system was evaluated on eight different aspects of school practice. For each aspect, practices were judged as Low, Medium, High, or Outstanding. Preliminary analyses suggest that useful practice-based measures could be constructed from judgements of this kind (Masters, 2012). This need to

rank evaluations is common worldwide.

Within "recent reviews, educational effectiveness researchers take for granted that the results of educational effectiveness and school improvement research provide a solid knowledge base" (Scheerens, 2015, p. 16) despite modest effect sizes. Indeed, Scheerens (2015) claims, "in recently conducted meta-analyses on educational leadership and instruction time, we found very small effect sizes" (p. 16). Therefore, locating the *answer* or finding guidance via published research is a very tenuous proposition (Schildkamp, Vanhoof, Petegem, & Visscher, 2012). For instance, a recent attempt at reviewing the knowledge base on educational effectiveness recognized ". . . large differences in the average effect sizes found across meta-analyses and small effects and little generalizability across countries found in international studies" (Scheerens, 2015, p. 27). The take away message from this recent research outcome is not to look away from published research concerning educational review, improvement and effectiveness; we are encouraged to consider alternative possibilities such as that found in Finland (Sahlberg, 2009, 2011) where they are using ". . . an alternative lever for educational reform and improvement, very much centered on teacher initial training, esteem, and professional motivation" (Scheerens, 2015, p. 28).

It could be argued that any DR process is not only an opportunity to share, it is a chance to participate and enhance professional motivation while boosting the self-esteem of participants. This is a reasonable position, since "teaching is a profession that is typically driven by ethical motives or intrinsic desire" (Sahlberg, 2009, p. 6).

Glickman et al. (2010) suggest "participants in successful schools show a remarkable tendency to see themselves as being involved in . . . a cause beyond oneself … [and] as part of the larger enterprise of complementing

and working with each other to educate students" (p. 42-43). This is a vital perspective that most often only teachers can realize since "the direct effect of principals on student achievement is near zero" (Ross & Gray, 2006, p. 799). Still, there remains a positive correlation between effective principals and school effectiveness (Bush, 2009). *Effective* principals do influence outcomes such as student achievement in some studies (Ryan & Soehner, 2011) via the motivation of teachers, articulation of a school vision, allocation of resources, and development of organizational arrangements which support teaching and learning (Caesar, 2013; Horng, Klasik, & Loeb, 2009). Principal leadership can mediate school effectiveness, yet most research demonstrates that teaching capacity is amid the utmost essential school-based factors stimulating student performance (Goldhaber, 2010).

As for teacher performance, recent research reinforces what we know to be true today: in "schools where principals [have] established a strong collaborative culture and professional relationships among staff [they] … were more likely to be able to encourage teachers to use the school performance feedback in a productive way" (Nelson & Ehren, 2014, p. 9). Perhaps the old saying comes into play: It is not what you say, but how you say it. Certainly,

> feedback which offers personal praise or criticism is less effective, although drawing attention to past performance may help focus attention on goals, and is to be preferred to the comparison of performance with that of others. Feedback needs to be specific, but not so detailed as to be confusing to the recipient. (Nelson & Ehren, 2014, p. 10)

Clear feedback (communication) is one of the traits required in the SEF (OME, 2008) that can heighten self-reflection, self-knowledge, and self-

efficiency (Ryan, 2013b). It is a daily task to communicate effectively with others, something that infuses a current "view that the most effective strategy for improving countries' educational performances is to improve the day-to-day work of schools" (Masters, 2012, p. 1). Each day educators are immersed in a web of often-hurried communications in school, with parents and the immediate community. Progress within the developmental review process is very much dependent upon effective communications and a culture rooted in professionalism (Ryan & Telfer, 2011).

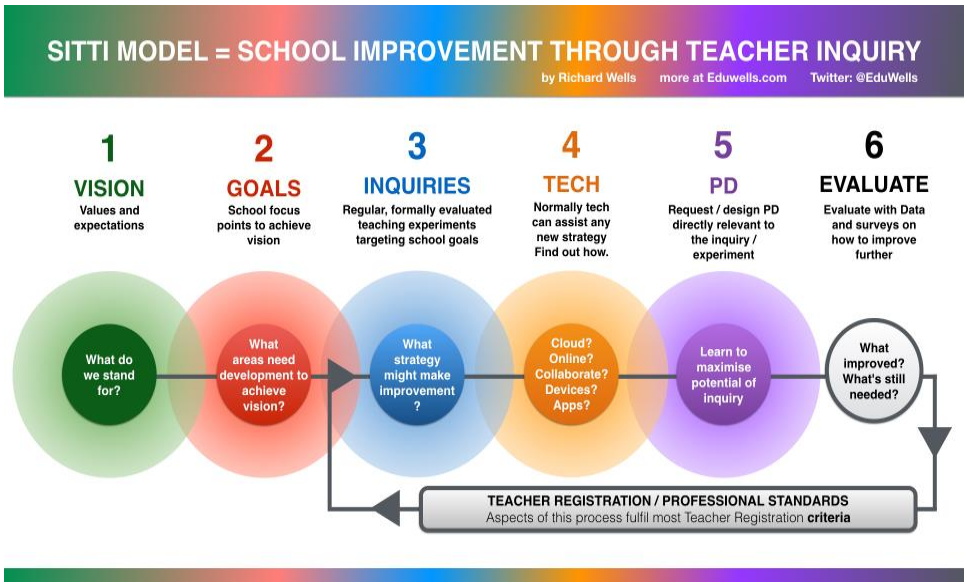
New Zealand

Related to the need for effective communication, Wells (2014) recently stated:

> In New Zealand, we are fortunate to have teacher inquiry/research written into our national curriculum document. This asks teachers to ensure they are **experimenting with strategies to improve their practice and recording the process and results.** My own school has put together a planning group to bring all of the school-wide improvement strategies together. The aim in doing this is to make more sense of why we have each component. It is a common complaint from teachers that school organized PD is irrelevant to what they do. It is also common for teachers, when asked to quote school vision or goals to draw a blank. (para. 1)

Wells (2014) touches on several key observations often heard from teachers. It is the teacher responses such as these that need to drive the improvement plans. All stakeholders need a voice even if they do not agree. The author puts forward a model for class level improvement that is quite straightforward as depicted in Figure 7.

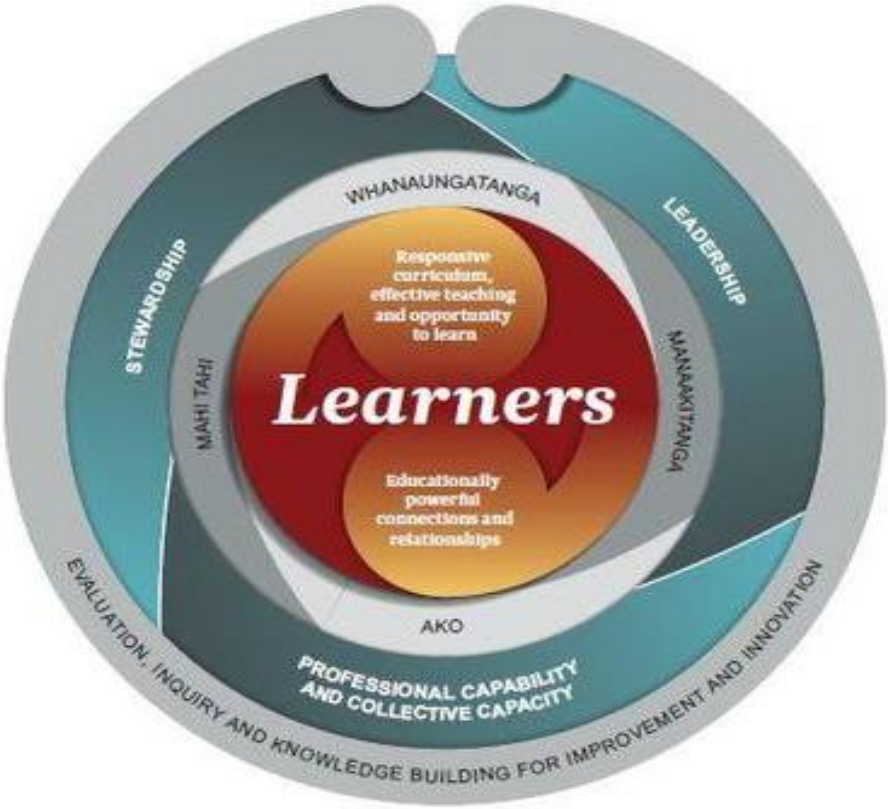
Figure 7: SITTI Model



Source: Wells (2014).

Six indicators comprise the New Zealand model (see Figure 7). The School Evaluation Indicators include six domains that have the most significant influence on improving student outcomes: Stewardship; Leadership of conditions for equity and excellence; Educationally powerful connections and relationships; Responsive curriculum, effective teaching and opportunity to learn; Professional capability and collective capacity; Evaluation, inquiry & knowledge building for improvement & innovation (Education Review Office, 2016)

Figure 8: School Evaluation Indicators.

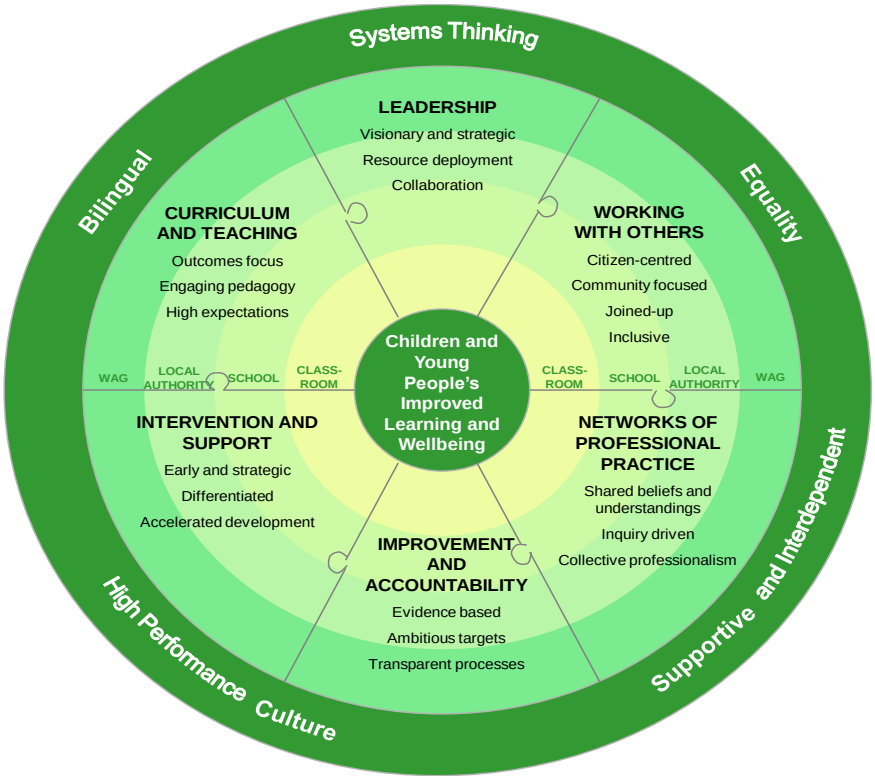


Source: Education Review Office (2016).

United Kingdom

Within the United Kingdom, endorsement of PD for all teachers is widely accepted. The Welsh Assembly Government is investing in the development of an integrated school effectiveness framework to improve outcomes via tri-level reform [reform at school, Local Authority and Assembly Government levels]. The Welsh SEF requires the development of Professional Learning Communities (PLCs) at school, local authority, and national levels to build collaborative capacity and engage leaders and practitioners at all levels in meaningful professional debate and learning.

Figure 9: The Welsh SEF



Source: The Vale of Glamorgan Council (2010).

The Welsh SEF is underpinned by five core themes:

Systems Thinking: The understanding by leaders at all levels that changing schools requires purposeful engagement across the 'tri-levels' of school, local authority and Welsh Assembly Government.

Bilingualism: The Welsh Assembly Government is committed to creating a truly bilingual Wales and recognizes the key contribution that schools and education will continue to make to achieve that goal. The need to treat the English and Welsh languages on a basis of equality will continue to underpin all policy development and service delivery. The SEF provides a further vehicle for ensuring that both our national languages are properly reflected by all those involved within the schools system.

High Performance Culture: We expect all of our schools to have high expectations of themselves, their learners, and the communities and partners that they work with. The SEF emphasizes an expectation of a high performance culture at every level from the classroom through to the Welsh Assembly Government itself, so that together we 'raise the bar and narrow the gap'.

Equality: The Welsh Assembly Government is committed to promoting equality of opportunity in all aspects of Welsh life and to addressing the discrimination on grounds of race, religion, disability, age, gender, and sexual orientation.

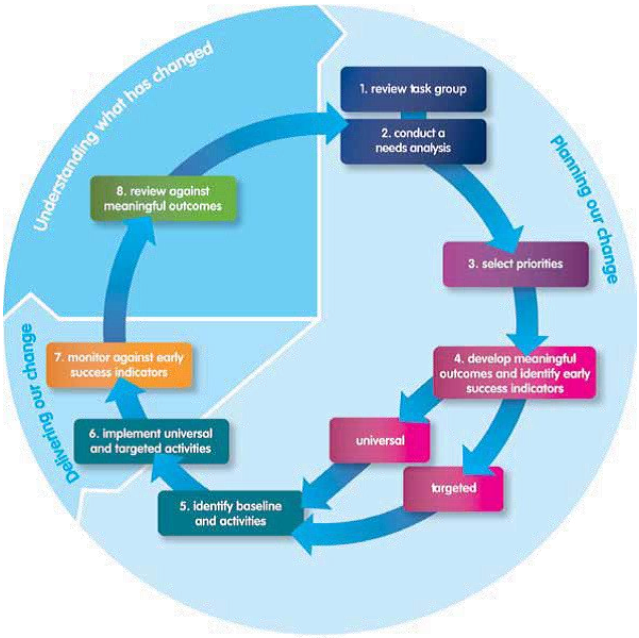
Supportive and Interdependent: Research shows that secure high quality outcomes, support for individual schools that recognizes their particular and unique circumstances is essential. This support should come from professional learning communities built up between and across schools, local authorities, and the Welsh Assembly Government. (The Vale of Glamorgan Council, 2010).

Much of the Welsh and New Zealand plans for school change can be utilized in Canada and aims to develop a high performance culture via systems thinking underpinning models. Canada is a country that values equality yet at the same time supports unique local contexts, just as the Welsh and New Zealand models do. The Welsh model (Effectiveness Framework) includes an inner band of six elements including: Leadership; Working with others; Networks and Professional Practice; Curriculum & Teaching; Improvement & Accountability; Intervention & Support. It would appear that the Welsh model complements the Ontario Framework (see Figure 10).

The commonplaces in all models emerge after comparisons are made. Essentially, “at a very basic level, the key components of an effective school improvement process include plan, do, study, and act” (Thessin, 2015, p. 71). Thessin (2015) suggests educators look for needs within evidence collection and then move forward into PD. Next, implementation takes off or fails to meet expectations, which is the evidence required altering the implementation. Examine evidence, make adjustments and refine the process to move onward. This is a recursive cycle somewhat akin to action research and the scholarship of teaching and learning.

Consider the Health Improvement Model from Nottingham within the U.K., which follows the 'Plan, Do and Review' cycle of improvement and is based on the National Healthy Schools Toolkit. Again, this model complements the action research mode of Act, Reflect, and Revise.

Figure 10: Health and Improvement Model from Nottingham, U.K.



Source: Nottingham U.K. Health and Improvement (2016).

Revisiting the United Kingdom, specifically Scotland, it is the *Coach Consult Programme* that gains attention, as it has been used for the past 13 years by one Scottish Educational Psychology Service (EPS) to support "sustainable, context-based change in 83 primary, secondary, mainstream and special schools. The Coach Consult Programme has been developed and adapted by … EPSs in Scotland and in England as a means to contribute to effective, high quality change management within schools" (Randall, Turner, & McLafferty, 2015, p. 69).

The need to look beyond traditional school improvement modes leads schools to wide-ranging school improvement "priorities beyond academic-oriented solutions by implementing expanded school mental health (ESMH) methods, interventions, and services that respond to the complexity and diversity of student and family needs in a comprehensive manner" (Mendenhall, Iachini, & Anderson-Butcher, 2013, p. 225). This wider approach embraces school and community resources and demands cooperation from educational stakeholders such as social workers, school counselors, psychologists, educators within schools, communities, agencies and faith-based groups (Mendenhall et al., 2013). Table 3 illuminates what a wider ranging mode Coach Consult Programme may entail.

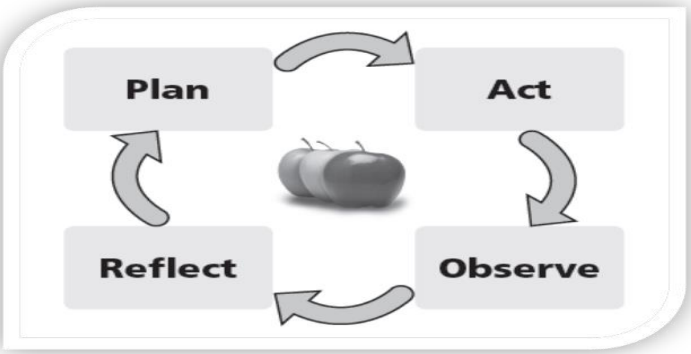
Table 3: Outline of Coach Consult Programme by Session and Skills

Session Theme Skills
1. **Introduction to theme literature:** theory awareness, hypothesis generation
2. **Needs analysis:** consultation with stakeholders, methods selection, data collection, data analysis
3. **Problem redefinition and implementation analysis:** intervention design, consultation with stakeholders
4. **Planning and consultation in school:** context consideration application of intervention(s)
5. **Troubleshooting:** problem solving, implementation analysis
6. **Evaluation (and presenting):** data collection, data analysis, value-added reporting
7. **Sustaining and embedding:** maintenance, integration and ownership, future implications
8. **Presentation preparation:** dissemination techniques

Session Theme Skills
9. **Presentation delivered to group:** reporting 10. **Dissemination and development:** maintenance of skills and new approaches (Randall et al., 2015, p. 73).

At the core of the Coach Consult Programme are elements of "action research, practitioner research and reflective practice …" (Randall et al., 2015, p. 70).

Figure 11: Improvement Cycle



Source: Ryan, 2013.

This Programme and its approach enable participants to:

1. Build capacity in schools for innovating using existing internal resources
2. Promote problem ownership
3. Ensure the real need is addressed through a thorough needs analysis and problem redefinition
4. Create a transferable skill set for future problem solving
5. Embed innovative work within a school context through project leadership and consultation
6. Develop project management and leader-ship skills within school staff at various levels
7. Have a direct impact on the quality of children and young peoples' educational experience (Randall et al., 2015, p. 76).

These actions and outcomes are desirable, yet as is the case in many improvement models there are barriers such as time, leadership problems, understanding, buy-in issues, and funding constraints.

IV. SCHOOL IMPROVEMENT AND SCHOOL EFFECTIVENESS MODELS

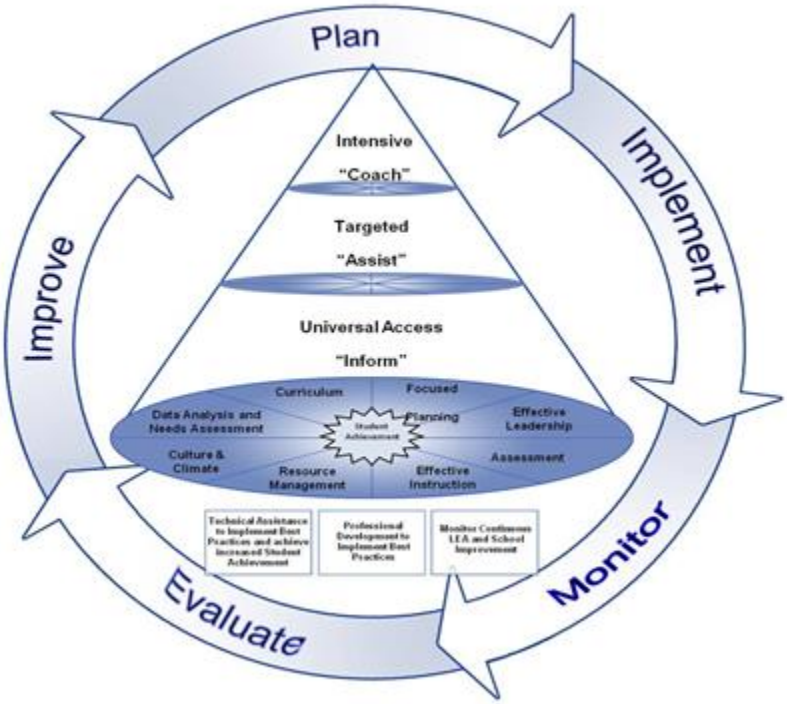
In sum, "both academic and nonacademic barriers persist in influencing student success in school; both the schools and their surrounding communities will have to continue developing innovative solutions to meet these ever-changing needs" (Mendenhall et al., 2013, p. 233). Farrell (2015) looked into the use of data in schools and concluded:

> Human capital, technology and tools, and organizational practices need to be aligned in order to increase knowledge flow . . . [and] Human capital resources, such as dedicated support positions (e.g., coaches) and professional development, are critical for collaboration, co-construction of new ideas, and joint work. These social interactions help establish social norms around information sharing and provide opportunities for shared sense-making. (p. 461)

Accountability is a driving force behind school improvement and educational change. As systems become more effective, the challenge is to identify meaningful evidence beyond the traditional test data and define a mode or approach that may lead to these desired outcomes. Alternative modes are being studied, yet the traditional barriers arise. The Arizona Department of Education (2011) has made available a Resource Guide for standards and rubrics for school improvement. The online guide offers over 350 educational resources to support the search of research, training, templates, and other items to help increase the

school's academic outcomes. The Arizona Department of Education (2011) proposed the following model of school improvement.

Figure 12: Arizona School Accountability/Intervention Model



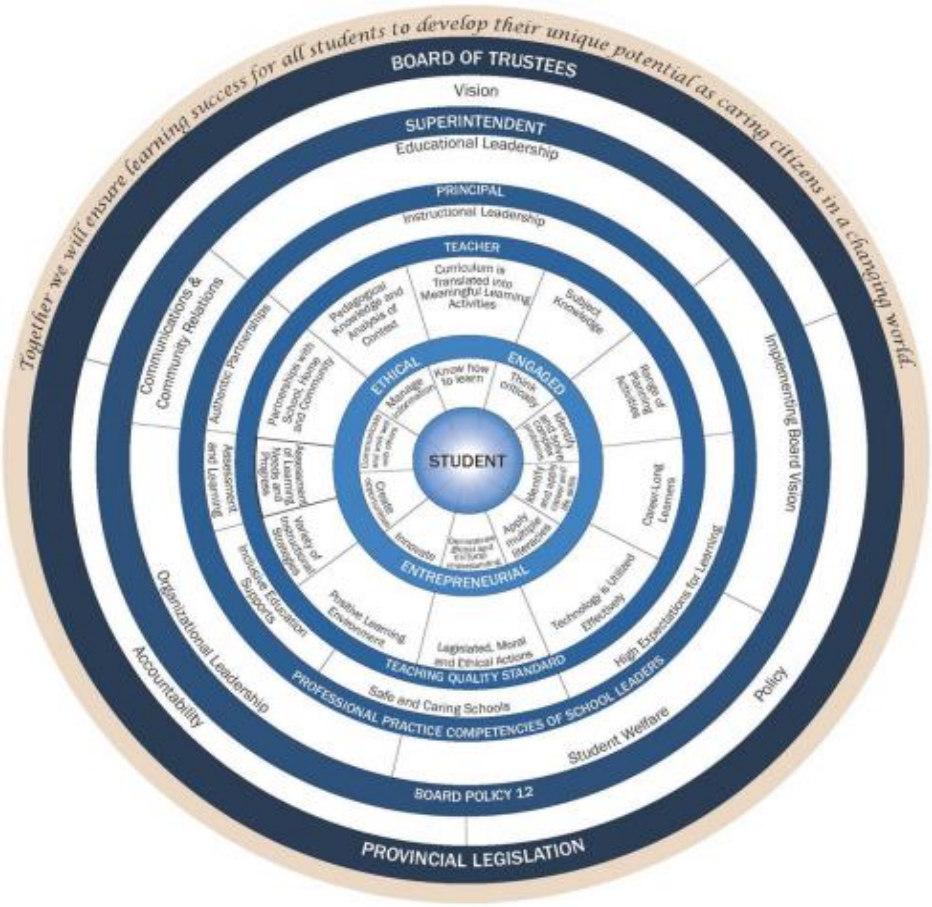
Source: Arizona Department of Education (2011).

Key terms such as coaching, monitoring, assisting (technical help), culture, and climate are prominent in Arizona's model. This indicates the enterprise is a cooperative model using partnerships to realize a central target of student achievement. The monitoring and PD of best practices has also been described in this text.

Consider several theorists who have devised representations of school improvement, such as David Hopkins and his *Development Capacity and School Conditions*; Michael Fullan's *Change Theory: A Force for School Improvement*; Cora Mitchell and Larry Sackney's *Capacities for Building a*

Learning Community; David Hargreaves's *A Capital Theory of School Effectiveness and Improvement*; Louise Stoll's *Influences on Internal Capacity*; and Femke Geijsel's *Conceptual Model of Innovative Capacity*. These are all theorists and not implementers nor educators within the system they are addressing. They write logically and convincingly, yet they lack practical experience applying this theory within real contexts. Like the spectator discontent with their teams' performance, the comments from the stands do little to change anything until a person from within an educational system reads, comprehends, and applies the theory in a manner that transforms and re-cultures to get the desired results of improving systems and people. Only then can the theory be granted merit. Consider another model, this time from Western Canada, with its concentric rings of inclusion that also details traditional position and responsibility.

Figure 13: Palliser Regional Schools Effectiveness Model

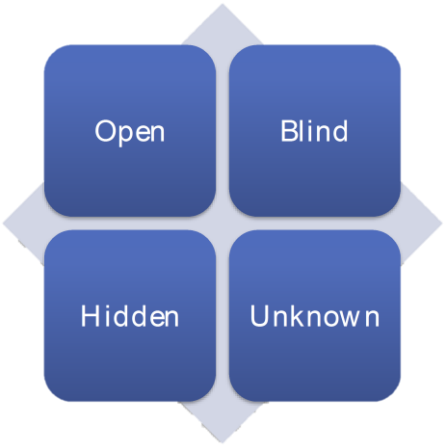


Source: Palliser Regional (2014).

The Palliser Model for a school effectiveness hierarchy using a concentric circular design. The outer most circles that represent the highest levels of school leadership (the board of trustees) on the top half of the circle are juxtaposed with the expectations that grouping has. With each subsequent circle a lower rung is detailed from superintendents, principals, teachers, and finally the most important rung - students in the centre. Expressed in this way the model clearly highlights the varied expectations for each level and how they both rely and build upon one another.

To move towards a new model for 2016, there is a need to add to the Ontario Framework to enhance communication to improve the interaction of all stakeholders via the Johari Window. Creators Joseph Luft and Ingham Harrington conceived a square (window), divided into 4 sections (Luft & Harrington, 1955; Luft, 1969) with areas labeled as 1. Open (known to me and to others): 2. Hidden (known only to me): Blind spot (known only to others): Unknown (known neither to me nor to others).

Figure 14: Johari Window Model – A Tool within the SEF



Source: Ryan **(**2016).

The use of this window in the PD of educators is critical, as the educator is both a student and a teacher during PD.

To improve praxes is to improve a person's self-belief in their ability. The improvement of self-belief of all stakeholders can only lead to greater self-efficacy no matter the position in any model (framework). It was Bandura (1997) who suggested a teacher's self-belief is linked to teacher self-efficacy, improve one and improve the other. The natural extension is to suggest changes in self-belief changes the self of all, regardless of the position or label. The Johari Window is a lens and tool to look into and over evidence that surfaces, as well improve, enable and build self-efficacy. As

noted earlier by Kalule and Bouchamma (2013), the importance of providing teachers with the opportunity to reflect on strengths and weaknesses via guided questioning by a skilled instructional leader is perhaps the best investment a school district can make. A question remains: How and when do we use the Johari tool within a SEF? For plausible answers see Appendix A.

V. CONTEXTUAL UNDERSTANDING OF THE ONTARIO SCHOOL EFFECTIVENESS FRAMEWORK

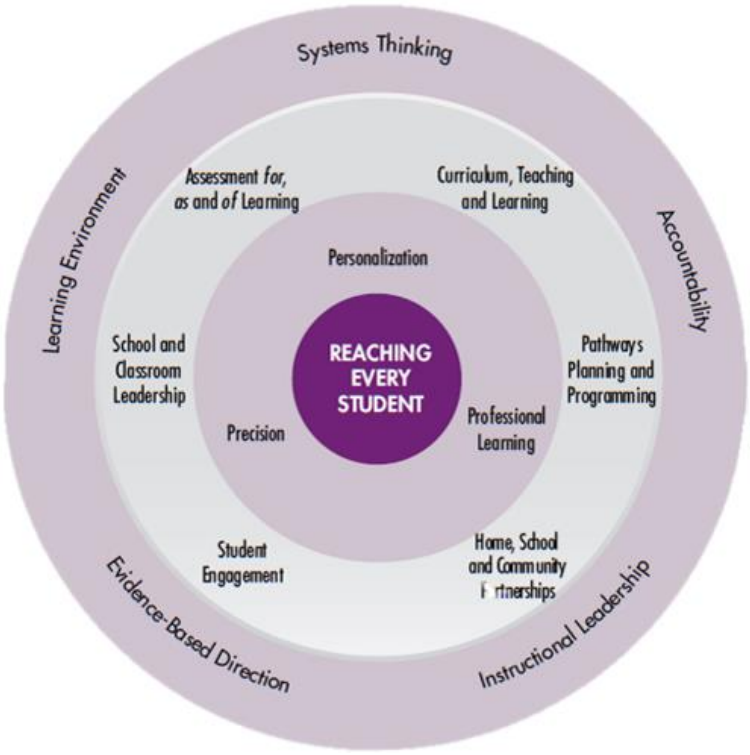
In Ontario, the *K -12 School Effectiveness Framework (SEF): A support tool for school improvement and student success* was first released in 2010 as a self-assessment tool that "supports the core priorities of the Ministry of Education:

- High levels of student achievement
- Reduced gaps in student achievement
- Increased public confidence in publically funded education" (OME, 2013, p. 3)

The initial version of the SEF that was released in 2010 was reviewed and refined following a two year implementation period. Based on feedback from across the province, in 2013 the current version of the SEF was released. The current SEF identifies evidence-based indicators of successful practice in six components of effective schools:

- Assessment for, as and of **Learning**
- School and Classroom **Leadership**
- Student **Engagement**
- **Curriculum**, Teaching, and **Learning**
- Pathways, Planning, and Programming
- Home, School, and Community **Partnerships**

Figure 15: The Ontario SEF (2013)



The Ontario SEF was designed with two key processes in mind:

1. *The School Self-Assessment Process* is a thoughtful inquiry that helps to identify strategies that will leverage improvement and inform implementation of the School Improvement Plan (SIP). The School Self-Assessment considers the following questions:

- Are we reaching our student learning and achievement goals?
- How do we know? What is the quantitative and qualitative evidence that supports this?
- What actions will we take to ensure continuous improvement?

2. *The District Process (DP)* is to be carried out with integrity and transparency for the purpose of promoting reflection, collaborative inquiry and ultimately improved student learning. The steps in the District Process include:

- Review of data and progress from the School Self-Assessment
- Determination of the scope of the review
- Collection, data analysis and preparation of summary report with recommendations
- Support for school planning and implementation of improvement strategies
- Capacity building for the professional learning community. (OME, 2013)

At the TDSB, schools collaboratively complete the school self-assessment process. Following the assessment, principals and vice-principals join together on designated days to provide feedback to schools on the indicators from the school self-assessment that have been previously determined collectively. The evidence is gathered through walkthroughs and via a written report based on the district team feedback, which is made available to superintendents. Superintendents are encouraged to share and discuss findings with principals and subsequently principals with school teaching staff. The goal for the external lens of the 'critical friend' is to improve student achievement for the whole school.

Superintendents are encouraged to follow-up with schools, monitoring and supporting suggestions and recommendations from the DR reports. Follow-up and support may include making board resources available to support the revised school plan, aligning board and school capacity-building efforts, and creating opportunities for shared learning (Toronto District School Board, 2015).

As of 2014-15, the TDSB DR journey completed its sixth year. Five hundred seventy one (571) schools have joined the DR journey completing the school self-assessment and the district process.

In Ontario, we do have a strong provincial government that provides curricula via the Ministry of Education and the Ontario College of Teachers, which oversees teaching in the province. Ontario teaching unions provide support, guidance, and scrutinize change in education. With these educational supports any proposed school effectiveness and school improvement model must make room for and embrace their place in Ontario education. The question of how to conceptualize school effectiveness remains a major concern in current debates on educational reform (Botha, 2010).

VI. CONCLUSION AND RECOMMENDATIONS

Please consider the material presented here as both a set of tools to look at school improvement planning as well as a list of varied models and tools that could be applied to completing an SIP. In terms of specifics derived from the review of applicable literature, the following stood out as pertinent in terms of tangible suggestions for completing an SIP.

- Having administrators complete walkthroughs promotes dialogue and collaborative improvement in teacher performance and classroom engagement levels.
- As digital literacy is an essential skill for students to develop, it is critical that teachers – even teachers that resist technology – do the same.
- Leadership is imperative in driving schools towards maximum effectiveness. A leader must set clear expectations about the role of the school board and each employee. Further, leaders must direct teachers towards viable and effective professional development and provide courteous but critical feedback that helps them advance their teaching practice.
- Students as well as teachers learn best from collaboration. During SIPs, close supervision by coaches and administrators to keep staff directed towards a common goal paired with teacher mentoring and professional development have shown results.

While taking an international vantage in order to unpack varied trends, studies and models, there were several that were mentioned in the body of this report. Some of the more pertinent include:

USA: Three studies from the United States include: first, the school transformation rubric devised in California; secondly, a nine state group that combined its resources to prune away ineffective programs, and lastly

a Buffalo study that shows how evidence-based data shared across a school board leads to best practices in regards to human resource decisions and the necessary provision of student supports.

Chile: Chile developed the *School Management Assurance System* that rates all of its schools across varied criteria. Discussed further in this model is school wide evaluations that lead to improvement in both teacher and student engagement.

New Zealand: New Zealand has a national education strategy that incorporates teachers experimenting with strategies to improve their teaching practice.

UK: Three models that came out of the UK include: the Welsh SEF Scale, which looks at system wide assessment and involving practitioners at all levels in system wide change; secondly, the Plan, Do and Review system which is an element of the *Health Improvement Model* from Nottingham; and finally, the *Consult Programme* out of Scotland which involves internal research within schools and an accompanying needs analysis that effects change in that school.

The trends and models reported within this report can be compared, contrasted, and applied with the TDSB's *School Effectiveness Framework*. Developed in 2010, this framework is intended to use qualitative and quantitative data to assess student learning and achievement goals and aid in the district review process.

All of the information presented, in addition to the notion of the Johari Window for full accountability and transparency, can be considered to complete a comprehensive SIP. Only clear understanding of individual schools and from that a deeper understanding of school boards can lead to

the types of lasting improvements that positively affect all students regardless of any potential equity issues.

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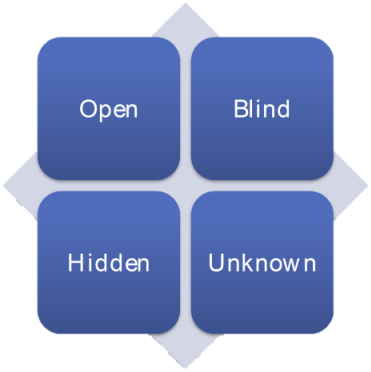
APPENDIX A

KEY COMPONENTS OF THE K-12 SCHOOL EFFECTIVENESS FRAMEWORK: USING THE JOHARI WINDOW TO ENABLE ALL TO IMPROVE COMMUNICATIONS, AWARENESS, UNDERSTANDING, AND SELF-KNOWLEDGE.



Earlier in this document (p. 3) it was stated: If school self-assessment is to be successful, certain traits must be evident:

- Clear communication;
- Personal and professional support, where needed;
- Shared leadership so that appropriate stakeholders are involved in decision making; and
- Willingness of teaching staff to share ideas, to explore, to build commitment and to mentor one another. (OME, 2008, p. 12)

The Johari Window (Focus Group) process will lead to desired effectiveness and interpersonal outcomes. Focus groups enhance data collection within qualitative research where a group perception is important (Parker & Tritter, 2006). Images such as photographs can prompt and sustain dialogue and texts may offer guidance (Barbour, 2010). Morgan (2010) has voiced concern with the roles within focus group facilitation, yet educators accustomed to group meetings with facilitators and recorders diminish this

concern. Educators are accustomed to division, staff, and community meetings that are facilitated and lead via an agenda much like focus groups. A purpose of the focus group is to document both the nonverbal and verbal attitudes, beliefs, experiences, and reactions of educators in a manner limited in other research methods (individual interview/ questionnaire) (Gibbs, 1997). The group interview is actually a flow of information due to interactions within the group, recorded, transcribed, and analyzed (Calderon, Baker, & Wolf, 2000). Group data are exposed to content analysis (Sim, 1998). The focus group (interview) mode is a "research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns'' (Hsieh & Shannon, 2005, p. 1,185). Gulliksen and Hjardemaal (2016) claim "knowledge is, to a large extent, constructed and developed through dialogue with others" (p. 6).