Capacity Building in Educational Leadership: A Path Towards Decolonizing and Indigenizing Public Schools in British Columbia

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Contents

Abstract

After the tragic and well documented era of Residential Schools is Canada[1], leaders in education are faced with the enormous challenge of educational reparation of those past wrongs. With a focus on British Columbia, I will use current educational leadership models, such as Hargreaves's and Shirley's (2012) model of the *four ways of educational change* and the concept of *complex adaptive systems* to define a leadership path that will allow educators at all levels to establish a foundational framework towards indigenizing and decolonizing schools beyond the simple addition of Indigenous content.

Keywords: Complex adaptive systems, decolonizing, indigenizing, Change theory

Capacity Building in Educational Leadership: A Path Towards Decolonization and Indigenization in British Columbia Secondary Schools

Introduction

Canada is facing an enduring disparity in academic achievement between Indigenous and non-Indigenous[2] student population groups. This inequality is a result of historic and ongoing power differences in the interactions between the colonizers and the colonized (Fanon, 2004; Pidgeon, et al., 2014; Stonechild, 2006; Government of Canada, 2015) and as a consequence leaves Indigenous learners of today to struggle in an education system built on those colonial structures, (see Table 2, p. 13 and Table 9 appendix A).

Mourshed et al. (2010) claim that events such as a "political and economic crisis, a high profile and critical report about system performance, or new political or strategic leaders" (p. 92) can ignite school system reforms. Despite several provincial and federal government changes across the wide spectrum of political ideologies and promises in Canada, little progress has been made in addressing the issues around the lagging academic achievement of Indigenous students. Several critical and highly publicized reports have been completed, such as the *Report of the Royal Commission on Aboriginal Peoples* (Government of Canada, 1991), or the more current Final Report of the *Truth and Reconciliation Commission of Canada* (Government of Canada, 2015). While both reports were able to, and still continue to, raise awareness and sensitivities around the struggles faced by Indigenous Peoples in Canada, their highly publicized critique around such achievement gaps in education did not initiate this ignition towards an effective school reform, as predicted by Mourshed et al. (2012).

Lichtenstein et al. (2006) declare: "Leadership theory must transition to new perspectives that account for the complex adaptive needs of organizations" (p. 2). In this paper, I will explore such new perspectives in leadership by including theories around *complex adaptive systems* (CAS) (Fullan, 2006; Kowch, 2013; Lichtenstein et al., 2006) as they relate to the model of Hargreaves's and Shirley's (2012) *Framework of the four ways of educational change* and their

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[1] The Mohawk Institute in Brantford, Upper Canada, became the first, all boys Residential school in 1834. By 1996 the last Residential School closed its doors in Punnichy, Saskatchewan (Canadian Encyclopedia, 2013).

[2] To avoid possible demeaning connotations from past experiences, the term Indigenous is used in this text to include all persons identified as having Aboriginal ancestry. Non-Indigenous describes persons whose ancestry is not indigenous to the territory now known as Canada, going back to Contact.

possible applicability in British Columbia's education system to evoke this needed change towards the betterment of education outcomes for Indigenous student populations.

The purpose of this paper is to critically identify and to solve, through an analysis of peer reviewed literature on capacity building, a clear leadership practice problem that is pertinent in education systems across Canada, while assuming the view or lens of the British Columbia Ministry of Education. The problem is an apparent inability, within the British Columbia K-12 public education system, to bridge the academic achievement gap between Indigenous and non-Indigenous population groups within prevailing, traditional leadership models utilized by the British Columbia Ministry of Education.

Definition, Context of the Problem of Practice

Indigenous students do not see themselves as being represented in our schools (Episkenew & Reder, 2008; Goulet & Goulet, 2014; Government of Canada, 2015; Ottman, 2009), and educators are often hesitant to go beyond the addition of Indigenous content into the regular curriculum. Restoule (2013) argues for more thoughtful and respectful ways of embedding Indigenous ways of knowing and learning to our schools, of indigenizing and decolonizing our classrooms: "We cannot achieve our goals alone. We need non-Aboriginal people to understand our shared histories, our perspectives, our visions and our goals and to participate in achieving them together" (p.34). Since the closure of the last residential schools in Canada and despite many attempts to bridge this achievement gap, statistics show that Indigenous and non-Indigenous students remain far apart in their academic success, (see Table 2, p. 9 and Table 9, Appendix A). Hargreaves and Shirley (2012) state that "theories and educational change must be judged not by their ideological or philosophical underpinnings, but by their outcomes and effects on students" (p.5). In the face of these realities, the question needs to be raised: If our current educational leadership practices are insufficient to deal with such a complex issue, how do we develop an efficacious model with the capacity to address this achievement gap between Indigenous and non-Indigenous students through the merger of traditional and newly emerging leadership models.

Donald (2009) claims "that decolonization in the Canadian context can only occur when Aboriginal peoples and Canadians face each other across historic divides, deconstruct their shared past, and engage critically with the realization that their present and future is similarly tied together" (p. 5). Lichtenstein et al. (2006) propose: "leadership (as opposed to leaders) can be seen as a complex dynamic process that emerges in the interactive 'spaces between' people and ideas" (P. 2). Within these statements, the realization of much needed discourse emerges, a discourse that explores such "interactive spaces between people and ideas." According to Hargreaves's and Shirley's (2012): "To be high achieving, educators in school systems need the right kind of purpose that inspires them, a strengthened professionalism that propels them forward, and a cultural and structural coherence that holds them together" (p. xi). For this purpose, I will call on Hargreaves's and Shirley's (2012) model of the *four ways of educational change* (see Table 10, Appendix A), and within this model I will focus on the pillar of *Principles of Professionalism* and pillar of *Purpose* and *Partnership*. Within those two pillars, I explore the following components of change: *purpose, community,* and *learning communities*.

Pillar of Purpose and Partnership:
  Purpose, to move beyond improvements to a broken system and allow for true innovation,
  including the welcoming of Indigenous ways of knowing and learning into who we are as
  public schools in British Columbia.
  Community, since indigenization can only be achieved through the support of local
  Indigenous communities to avoid further colonialization practices.
Pillar of Principles of Professionalism:
  Learning Communities, since one of the approaches towards a solution is located in the
  building of inclusive learning communities in schools that reach beyond the confines of the
  school walls.

Literature Review

Change Substance

Within their compendium of change theories, Hargreaves and Shirley (2012) make a
distinction between *change substance* and *change process*. Following this separation, we first
will have a closer look at the change substance, as defined by the authors: "The *substance* of
change concerns what is meant to be changed in the core operations of the organization" (p.
113). In this situation, as introduced above, decolonization and indigenization of education, with
a specific focus on British Columbia, will represent one important aspect of such change
substances.

While this paper does not specifically focus on leading the possible processes of
decolonizing or indigenizing within education systems, it will be necessary to establish a general
understanding of these two concepts, together with their importance in current educational
practices, to better establish the context of this paper. Goulet and Goulet (2014) define the two
concepts:

  Decolonizing education places more emphasis on the power relationships within
  education and serves to deconstruct past colonial systems of education and recreate new
  ones, usually based on equity and indigenous principles. On the other hand, *indigenizing
  education* usually refers to the integration of Indigenous content, understandings, and
  processes into the formal education system. (p. 11)

In their Final Report, the Truth and Reconciliation Commission of Canada listed 93 calls to
action, of which several had a distinct focus of decolonizing and indigenizing education at all
levels (Government of Canada, 2015).

The change substance in this case, decolonization and indigenization in education
systems, is of great importance to me personally and in my leadership role as educator. To make
this change possible, it now becomes essential to look at Hargreaves' and Shirley's (2012)
second distinction of change theory, the *change process* (p. 114).

Change Process

Personal experience as an educator and school principal tells me that in the processes of
change, our focus and energy is habitually spent primarily on the change substance. Due to our
professional inclination to care for our students first, we tend to look at the problem and put a
solution in place to take care of that substance in that moment. By doing so, we all too often
overlook the change process, the needed leadership adjustments that will allow for a more lasting
solution, a solution that prevents the reoccurrence of the same issue, a solution that will provide
sustainability in the face of time and possible leadership change at the school, district, or

ministry level. While we want to install changes quickly to help that child in the moment, we often neglect the administrative pieces, the change process, to solidify our actions and fixes to the problem in the longer term.

Lichtenstein et al. (2006) write: "A complex system perspective introduces a new leadership 'logic' to leadership theory and research by understanding leadership in terms of an *emergent event* rather than a person" (p. 3). From this statement, I presume that in Hargreaves' and Shirley's concept of leading school change process, it becomes important to view such a process as an event within a larger and more complex system, with considerations and responsibilities far beyond an individual or a group of persons who are close to, and focused on the change substance predominantly.

Looking at the example of decolonizing and indigenizing education within British Columbia (change substance) and the complexity of the undertaking (change process), a process that involves layers of governance from the federal to the community levels, layers of education governance within each political level, plus Indigenous communities, it becomes clear that we are dealing with a highly complex system, which can make change very involved and complicated. It is here where I see it as important to expand our understanding and effective application of leadership to one more theoretical framework, which appears to be instrumental to the process of change, the *complex adaptive system* (CAS).

Complex Adaptive Systems

As I established in the previous section, decolonization and indigenization of education represent a profound and multilayered change, within a greatly complex and multifaceted system. To make such a multi-level complex system adaptive, represents a significant challenge to leadership at all levels (Davis, et al. 2012; Hargreaves and Shirley, 2012; Kowch, 2013; Lichtenstein et al. 2006; Reigeluth and Duffy, 2008). Davis, Sumara, and D'Amour (2012) explain: "Complexity science is itself an example of what it studies: an emergent phenomenon in which similar but nonetheless diverse elements coalesce into a coherent, discernable unity that cannot be reduced to the sum of its constituents" (p. 375). Lichtenstein et al. (2006) add to this argument by explaining "leadership is a dynamic that transcends the capabilities of individuals alone; it is the product of interaction, tension, and exchange rules governing changes in perceptions and understandings" (p. 2). In this paper, I attempt to focus on how, in all levels of educational leadership, from a ministerial, federal and provincial level, across to the school based leaders, we can utilize some of those interactions and tensions to our advantage to provide the needed leadership, while applying some of the principles of Hargreaves' and Shirley's (2012) *four ways of changes*.

Four Ways of Changes

Having established that leadership, within complex systems, is more than a single person or a simple act, according to Lichtenstein et al. (2006) it is more comparable to an event taking place between interactions, I will now attempt to connect this larger and more complex concept of leadership with the *four ways of change*, as outlined by Hargreaves and Shirley (2012).

Table 10 (Appendix A) represents an outline of a *Framework of the four ways of leading educational change*, as explained by Hargreaves and Shirley (2012). I propose that many of the aspects in this table represent some of those "interactive spaces between' people and ideas," as alluded to by Lichtenstein et al., (2006) and relate some of the content in this table back to the issue of leadership through decolonizing and indigenizing education practices. For this I will

choose some of the components of change within the three pillars of change, establish in which of the *four ways of change* the selected components align, with the support of current literature, observations, and statistics. I then will proceed to assume an alternate way of change for the same component to define where capacity building in leadership, from the ministerial across to the school level, needs to focus to bring us closer to a resolution of the original issue, decolonization and indigenization in education.

Three Pillars of Educational Change

The different pillars and components of change (Hargreaves and Shirley, 2012), within this intricate change leadership model, are difficult to view in isolation; as similar to a complex mechanism, it takes all the individual parts to work well together for that mechanism to perform at its best. When diagnosing and optimizing the performance of a complex model in its application within a complex leadership structure, we have to be able to look at each individual part of such a model, and how those parts are applied best at each level of leadership. Hargreaves and Shirley (2012) remind us: "it is not unusual to find a First Way teaching within a Second Way system with a Third Way school principal" (p. 11). For the purpose of this paper, I will attempt to look at some of the pillars and components of change individually. As Hazy and Uhl-Bien (2015) explain, "if intentional organizing is to occur within a complex system of human interactions, leadership as a construct must perform certain system functions" (p. 80).

Hargreaves' and Shirley's (2010) *Framework of the four ways of leading educational change* (see Figure 1), is a complex model to be applied in educational leadership. For the objective and the manageability of this paper, I will demonstrate a possible application of parts of this complex model – parts I see as pertinent to support leadership in education towards the tasks of indigenizing and decolonizing public schools. Therefore, I will first focus on the pillar of *Purpose and Partnership* and within this pillar I will examine the components of *Purpose* and *Community*. My second focus will be on the pillar of *Principles of Professionalism*, and within this pillar I will examine the component of *Learning Communities*. For each component of change examined, I will use evidence from practice and current literature to situate the concept within its current way of educational change. Next, I will explore which way or theory of leading educational change would be needed to allow for decolonization and indigenization of our educational practices in British Columbia.

Purpose

Table 1:
Within the pillar of purpose and partnership is the component of purpose

Components	First Way	Second Way	Third Way	Fourth Way
Purpose	Innovative; inconsistent	Markets and standardization	Performance targets; raise the bar, narrow the gap	Inspiring; inclusive, innovative mission

The Government of British Columbia (2015) publications on Aboriginal Education Enhancement Agreements state the following *purpose*:

The Ministry of Education has supported the development and implementation of Aboriginal Education Enhancement Agreements (EAs) as a primary tool to increase student success and to bring Aboriginal learning to all students. This tool is well

established as a way to include Aboriginal people in decision-making and focus on measurable student outcomes. (p. 1)

Statistics stemming from those enhancement agreements are released annually by the Government of British Columbia (2016) under the heading of *How Are We Doing?* Those numbers are based on demographic information plus results from standardized testing, with the main purpose of comparing Indigenous students and their non-Indigenous peers. This focus on measurable student test results and their direct comparison across population groups, together with a continuous emphasis on the gap between Indigenous and non-Indigenous students are clear indicators of a *Third Way* approach: "Performance targets, raise the bar, narrow the gap" (Hargreaves & Shirley, 2012, Figure 1.1, p. 10). For the purpose of this argument, I will compare grade 4 and 7 test results in reading, writing, and numeracy for the 2007/08 and the 2015/16 school years (see Table 2).

Table 2
Foundation Skills Assessment BC: A comparison between grade 4 and 7 students (Schaub, 2016)

	Students performance in Writing					
School Year of	Not Yet Meeting		Meeting		Exceeding	
	Indigenous	Non-Indig.	Indigenous	Non-Indig.	Indigenous	Non-Indig.
2007/08	32%	17%	51%	65%	3%	6%
2015/16	34%	16%	64%	79%	2%	5%

	Students performance in Reading					
School Year of	Not Yet Meeting		Meeting		Exceeding	
	Indigenous	Non-Indig.	Indigenous	Non-Indig.	Indigenous	Non-Indig.
2007/08	28%	16%	63%	70%	5%	11%
2015/16	33%	18%	62%	70%	5%	12%

	Students performance in Numeracy					
School Year of	Not Yet Meeting		Meeting		Exceeding	
	Indigenous	Non-Indig.	Indigenous	Non-Indig.	Indigenous	Non-Indig.
2007/08	35%	21%	49%	60%	4%	10%
2015/16	40%	19%	57%	70%	3%	11%

It needs to be mentioned that for 2017/08 the results included a "performance level unknown" column, leading to the totals per population group being less than 100%. This column was eliminated for the 2015/16 school year.

There is little indication that the achievement gap between Indigenous and non-Indigenous students in British Columbia has narrowed over the past decade. My personal experience at the school level confirms this finding. Also, I sense a dissonance between the *Third Way* change leadership approach by the ministry, and predominantly *First Way* change leadership methods used at the classroom level. Teachers and schools are given limited amounts of direction (leadership) and resources to support these Third Way expectations in their classrooms. Here, the focus seems more on a First Way approach (innovative, inconsistent),

where teachers *innovate* according to their own interests and levels of understanding, leading the system to an *inconsistent* approach between classrooms, schools, and districts (see Table 10 appendix A).

Looking at those numbers through the lens of the British Columbia Ministry of Education, it is evident that the results, over this last decade, do not match one of the main Enhancement Agreement goals: "… to increase student success" (Government of British Columbia, 2015, p.1). Following Hargreaves and Shirley, (2012) there seems to be an imbalance between *change substance* and *change process*. The ministry focus remains within the substance of changing test results and narrowing the gap, while at the classroom level, work is done mainly around changing the substance by means of including Indigenous materials, knowledge, and ways of learning. There seems to be a lack of *change process*, leaving us with questions of leadership capacity: Who is going to lead the process? How will it be done? What will be the time frame? And how will we track success?

Hargreaves' and Shirley's (2012) *Fourth Way* of educational change: "Inspiring, inclusive, innovative mission" (Figure 1.1, p. 10) can be that next step, allowing us to add more of this change process at all levels involved. Lichtenstein et al. (2006) point to tension as driving adaptive leadership in a complex system: "interactions between agents spark tension that leads to adaptive change. … Such challenges to agent schema can, under the right enabling conditions, foster realignment of agents' cognitive maps to resonate better with the new information" (p. 5). Clearly, there are tensions in this example. While the main focus of the ministry of education remains within the Third Way of educational change, classrooms are working within the First Way, and while one of the goals is closing those gaps, the reality is reflected differently in those yearly reports. I will return to these tensions under the heading: *Conceptual Framework Underpinning the Solution*.

Community

Table 3:
Within the pillar of purpose and partnership is the component of community

Components	First Way	Second Way	Third Way	Fourth Way
Community	Little or no engagement	Parent choice	Parent choice and community service delivery	Public engagement and community development

Through Aboriginal Education Enhancement Agreements (Government of British Columbia, 2015) the ministry of education has put in place a mechanism that allows local school boards to create such agreements, together with local Indigenous communities, including local bands, Métis Associations, and other Indigenous groups within districts. The purpose of these agreements is "to enhance the educational achievement of Aboriginal students" (p.1).

Such enhancement agreements are generally developed in a process that includes local Aboriginal education councils, students, parents, teachers, and district leadership at all levels. Parents have a choice to participate in the process, a choice over their priorities, and in larger districts a choice of school, which can include the choice between a band or public school in some communities. However, at the end, the community, comprised of all possible participants in the process, will decide on the contents of such enhancement agreements – agreements that then will drive service delivery at the district and school levels. This approach falls into the *Third*

Way of educational change (Hargreaves & Shirley, 2012): "Parent choice and community service delivery" (see Table 10 appendix A).

Since enhancement agreements were put in place, 15 years ago (Government of British Columbia, 2015), This process has worked well in many communities and often ended with feelings and ceremonies of celebrations. However, the statistics focusing on student academic achievements over this last decade do not match the main outcomes of those agreements. Cynics could point to the report of The Royal Commission on Aboriginal Peoples (RCAP) completed in 1991 (Government of Canada, 1991) and claim that many of the goals stated in this document were re-stated in the final report of The Truth and Reconciliation Commission (TRC) in 2015 (Government of Canada, 2015). The idealist will point out that education in British Columbia has moved from a *First Way* approach after the closure of residential schools to mostly a *Third Way* approach, currently (Hargreaves & Shirley, 2012). The visionary will look at the *Fourth Way* of educational change, the RCC, and the TRC and foresee ways to create public engagement beyond the creation of a document, a vision of community development that fosters ongoing relationships between communities and schools. Fullan (2006) uses the concepts of "theory in use" and "theory of action": "Having 'theory in use' is not good enough, of itself. The people involved must also push to the next level, to make their theory of action explicit" (p. 3). Fullan uses the example of *Professional Learning Communities* and their potential to build wider communities, beyond the walls of individual schools (p. 7).

An example of Fullan's (2006) *theory of action* can be explored when moving from the *Third Way* change leadership, from giving parents a choice and delivering a service to the community, towards a *Fourth Way* change leadership. Here, the community, including the parents and school leadership, develop common ground and a community through public engagement where parents do not have to make choices, as a choice all too often comes with compromise, a community where individuals' needs are respected.

Learning Communities

Table 4:
Within the pillar of principles of professionalism is the component of Learning communities

Components	First Way	Second Way	Third Way	Fourth Way
Learning Communities	Discretionary	Contrived	Data-driven	Evidence-informed

Fullan, (2006) addresses professional learning communities (PLCs), in their potential to drive change theory or to stifle it, depending on their frameworks and he cautions: "I will say that because the theory of action underpinning PLCs is not deeply enough specified by those adopting PLCs, they will again fall short of getting results" (p. 6). DuFour et al. (2010) write: "Leaders who call upon others to engage in new work, achieve new standards, and accomplish new goals have a responsibility to develop the capacity of those they lead to be successful in meeting these challenges" (p. ii).

Placing currently operational learning communities within Hargreaves' and Shirley's (2012) framework is difficult, as they tend to look very different from school to school. Within one school district, we often can observe learning communities enacting change characterized by the *First*, *Second*, and *Third Ways* of change leadership. Due to timetable limitations, all too often learning communities are expected to take place before or after school, making them highly discretionary for each individual staff member (*First Way*). In other situations, time is allocated

and staff are expected to develop learning communities, which can make them contrived (*Second Way*).

Most learning communities, however, are based on data collection and emergent action research formats. DuFour et al. (2010) describe PLCs as an "ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (p. 4). The authors expand on this idea and outline continuous cycles, iterations of data gathering, strategy development according to the data, strategy implementation, analysis of changes, leading into a new cycle of data gathering and strategy development. While the authors use the term *evidence* in place of *data*, the process is clearly data driven and therefore fits the *Third Way* of change leadership within Hargreaves' and Shirley's (2012) framework.

Fullan (2006) takes this idea of learning communities to the cusp of the *Fourth Way* in his argument that "PLCs can be miscast as changing the cultures of *individual* schools" (p. 6). He builds on his argument and claims: "For system change to occur on a larger scale we need schools learning from each other and districts learning from each other" (p. 7). I will take this argument further and add the wider community outside of the school walls to these learning communities. As in the *Fourth Way*, according to Hargreaves and Shirley (2012), learning communities are *evidence informed* and there is no limitation to where this evidence can originate. In the case of decolonization and indigenization in education, I argue that a lot of this evidence will have to come from the wider communities, including Indigenous communities, outside individual schools and districts.

Critical Analysis of the Literature and Research

In this critical analysis, I will refer back to the wider lens or view at the level of the Ministry of Education in British Columbia. I will extract the pros and cons from my literature review as they pertain to the issue of a persisting education achievement gap between Indigenous and non-Indigenous student groups, with an additional focus on the processes of decolonization and indigenization within the public-school system.

After a highly public process, the Truth and Reconciliation Commission of Canada (Government of Canada, 2015) has increased general awareness of the issues plaguing Indigenous population groups in Canada. Daily news reports of underfunded Indigenous communities, of poor living conditions, high suicide rates, and many other issues afflicting Indigenous populations do keep reminding us of this problem facing all of Canada, but the repetitiveness of the message can also have the consequence of making us impervious to these serious situations.

After close to two decades of Enhancement Agreements and efforts to include Indigenous ways of learning and knowing to the daily curriculum, leaders in education from the ministry to the individual school can no longer look at prevailing achievement gaps between Indigenous and non-Indigenous students from K-12, as outlined in Table 2, p. 9 and Table 9, Appendix A, without exploring additional and alternate measures to close those gaps. The British Columbia *Dogwood Diploma*, which is the regular high school graduation diploma, has become a credential too wide spread, with students at one end of its spectrum satisfying entry requirements for the most challenging academic post-secondary programs, while students on the other side of its spectrum are barely able to enter some basic post-secondary programs. At the ministry level it is therefore essential to recognize that widening this spectrum by lowering expectations and requirements for students to obtain our high school diploma cannot be the only solution.

In British Columbia (2017), the ministry of education is in the process of implementing a new curriculum from Kindergarten to grade twelve, a curriculum with a more specific focus on "Aboriginal perspectives and knowledge" (pp. 7-8), a curriculum that has the potential of an invigorated purpose to address this achievement gap. In regards to purpose, our literature review shows a couple of tensions, with government expectations and change leadership being located in the *Third Way* yet school practices often functioning at a *First Way* of educational change. While the government is measuring and looking for academic results, teachers in the classroom have very little concrete support or guidance to achieve those desired outcomes. This results in stagnating academic achievement stats, continuously showing Indigenous student populations underperforming in comparison to their non-Indigenous peer groups (see Table 2, p. 9 and Table 9, Appendix A).

While this can appear as very bleak and hopeless, one positive can be found within those poor findings. Lichtenstein (2006) mentions tensions or disruptions that are necessary to evoke change in complex adaptive systems, those tensions are apparent with expectations not being met or being backed up with the required support. The new curriculum has the potential to address many of these issues, allowing for more *inspiring*, *inclusive*, and *innovative* approaches (see Table 1, p. 8). At the ministerial level, it will be imperative to provide leadership, guidance, and resources that will allow such tensions and disruptions to evoke changes and enable steps towards decolonization and indigenization at the district, school, and classroom levels. While this new curriculum holds all this promise, it might be in vain under prevailing leadership practices.

This concept of inclusion penetrates most finings in this literature review. Under the principle of *community,* the findings show that, in many districts, we are coming close to working in a *Fourth Way* approach to educational change. Communities are engaged in developing enhancement agreements, there is an awareness of the problem and a willingness to find a solution. Visionary leadership at the provincial level can help the system take this next step, which involves the component of *Learning Communities*.

While the literature and the reality in the classroom show that learning communities are currently dispersed across *First* to *Third Way*, this situation creates another tension or disruption, asking for more direction and leadership, as the value of high performing learning communities is well known and little disputed. Fullan (2006) warns: "In critiquing PLCs I will end up with a warning – that we don't throw out the baby with the bath water" (p. 6).

The strongest pros in these findings can be summoned up as one. There is little dispute that there is a strong need for closing this education gap between Indigenous and non-Indigenous students; this need might be based in statistics, economics, or morals. There also is a clear understanding that community involvement and learning communities will play an essential part on this journey, and to make the two most effective, provisions at the ministry level must enable districts to consider them as one and not as separate entities.

Conceptual Framework Underpinning the Solution

If Indigenous students do not see themselves represented in our schools (Episkenew & Reder, 2008; Goulet & Goulet, 2014; Government of Canada, 2015; Ottman, 2009), as alluded to earlier in this paper, then we need to build leadership capacity, starting at the ministry of education, reaching all across the individual districts, schools, and classrooms where this needed representation for Indigenous students can be provided through purposeful acts of leadership. Looking at educational change through the concept of Hargreaves' and Shirley's (2012)

Framework of the four ways of educational change, we now can take our findings and amalgamate them into a wider framework that can bring possible change to the persisting academic achievement gap and allow Indigenous student groups to find themselves represented in our schools, through processes such as decolonization and indigenization.

Change Substance and Process

In an email conversation, Dr. Dwayne Donald (personal communication, February 14th, 2017) challenged my ideas of decolonizing schools: "As for decolonization, I think that the real work now needs to be unlearning colonialism for us all. For me, the move to decolonization has been too quick. There is lots of work that needs to happen before we can even consider that." This takes me back to Hargreaves' and Shirley's (2012) concepts of *change substance* and *change process*. As discussed before, the essence of current interventions is mainly *change substance* focused: we put measures in place to help Indigenous students perform at the individual classroom level, make them measure up to their non-Indigenous peers. However, we tend to overlook the *change process*, we overlook capacity needs in leadership to make those changes systemic. As Dr. Donald elaborates, to "study the unnamed culture that governs most of what we do in schools" (Donald, 2017, personal communication, February 14th). I argue here that a great part of this "unnamed culture that governs most of what we do in schools" is in its entirety or partially a result of prevalent leadership practices.

According to Lichtenstein et al. (2006), leadership needs to be understood as bigger than one person, as "an emergent event" (p.3). Therefore, a solution to this problem, within such a complex adaptive system, can only be found within the extensive process of building leadership capacity through breaking the complexity of leadership, the macro-level, into its basic elements, exploring the impact of each of those elements on the whole organism at this micro-level, and reconstructing the complex organism with a deeper understanding of its complex inner workings. Kowch (2013) summarizes "four categories of important leader network characteristics" (pp. 167-170), which I have attempted to condense in Table 5. These four categories in their summarized form reveal the sheer complexity of such a leadership network. It also is important to notice that for many of the characteristics listed in Table 5, it will be impossible to precisely plan due to the fact that they are dependent on individual persons. However, it is important for a purposeful leader to be aware of those potential influences in order to avoid surprises with a potential of being detrimental to the desired outcome.

Table 5
Four categories of leader network characteristics, condensed (Kowch, 2013)

Relations	Bureaucratic / Functional
	Knowledge exchange
	Personal support
	Technical / Process
Structural features and patterns	Centrality (cohesion around a focal point)
	Density (existing versus potential ties/relationships)
	Cluster (inhibiting sub-systems)
Capacity	Ability to manage complex tasks
	Ability to generate answers to new problems; generate new information
	Ability to rise above self interest

	Concept within the system of roles; value set; professional ethos
Network dynamics	Nature and types of relations
	Changes in actors /Relation types and resonances
	Attractors motivating leaders to participate and act
	Organize interest and do the work

Figure 1

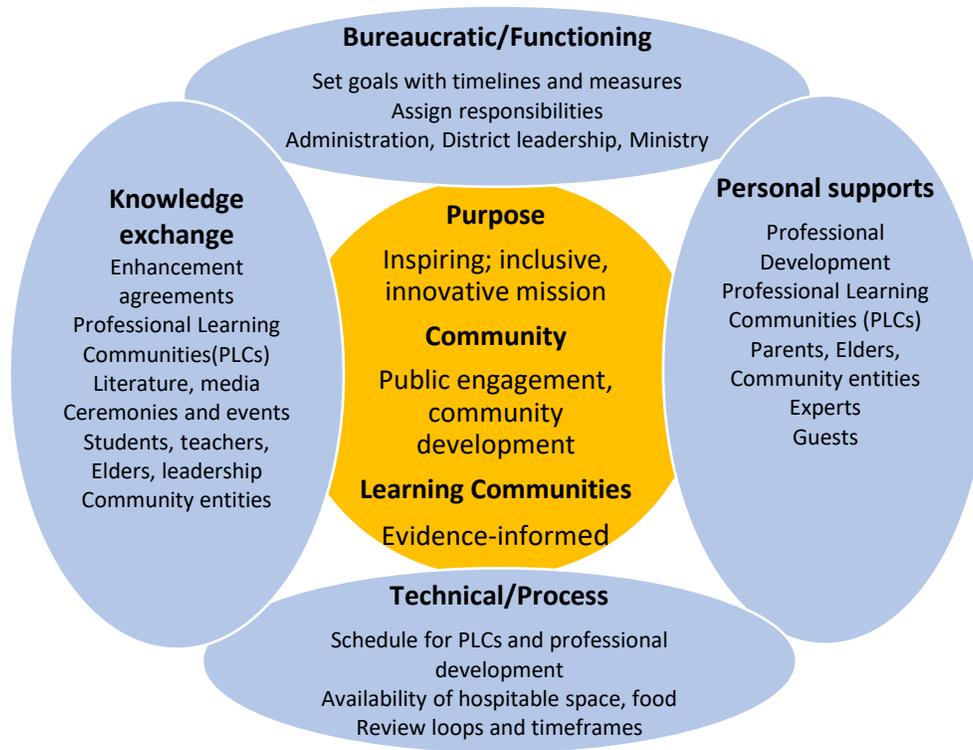*4th Way Change components within the network characteristic of "Relations"*

Figure 1 is a visual representation of the three change components discussed earlier in this paper, throughout tables 1, 2, and 4, within a *Fourth Way* approach to educational change (Hargreaves and Shirley, 2012). The three change components are surrounded by the *network characteristic* of *Relations*, as summarized in Kowch (2013). It is here where the immense intricacy of a complex adaptive system, such as an education system within its influences from the wider community, becomes visible. Figure 1 does only consider two out of three pillars in Hargreaves's and Shirley's (2012) model and only lists three of a total of thirteen components of change, while it also is limited to only one of the four network characteristics, listed by Kowch (2013). It becomes clear that including all of these components reaches far beyond the scope of this paper.

Vignette 1

Secondary School Project

This Secondary School is a grade 9 to 12 high school with about 850 students, 45 teachers, and 30 support staff. The school has an Indigenous student population of approximately 27%. Similar to most other secondary schools in Canada, this secondary

school experiences a persisting achievement gap between Indigenous and non-Indigenous students.

In the spirit of healing and strengthening Indigenous communities along the Western Pacific shores of North America, the annual event of Tribal Journeys sees traditional ocean canoes from Indigenous Nations all along the coast gather annually in a different Indigenous community.

This vision sees the carving of a canoe done at the school by students and staff, under the guidance of local experts, artists, and Elders. This project did receive the blessing and support of all Indigenous communities connected to the school. As we undertake the journey of carving this canoe, patience and persistence have become the most essential attributes carried by staff and students involved. One unexpected, but welcome "side-effect" coming along with this project is Indigenous students finding their voices and approaching school administration with requests and suggestions to find representation within our high school.
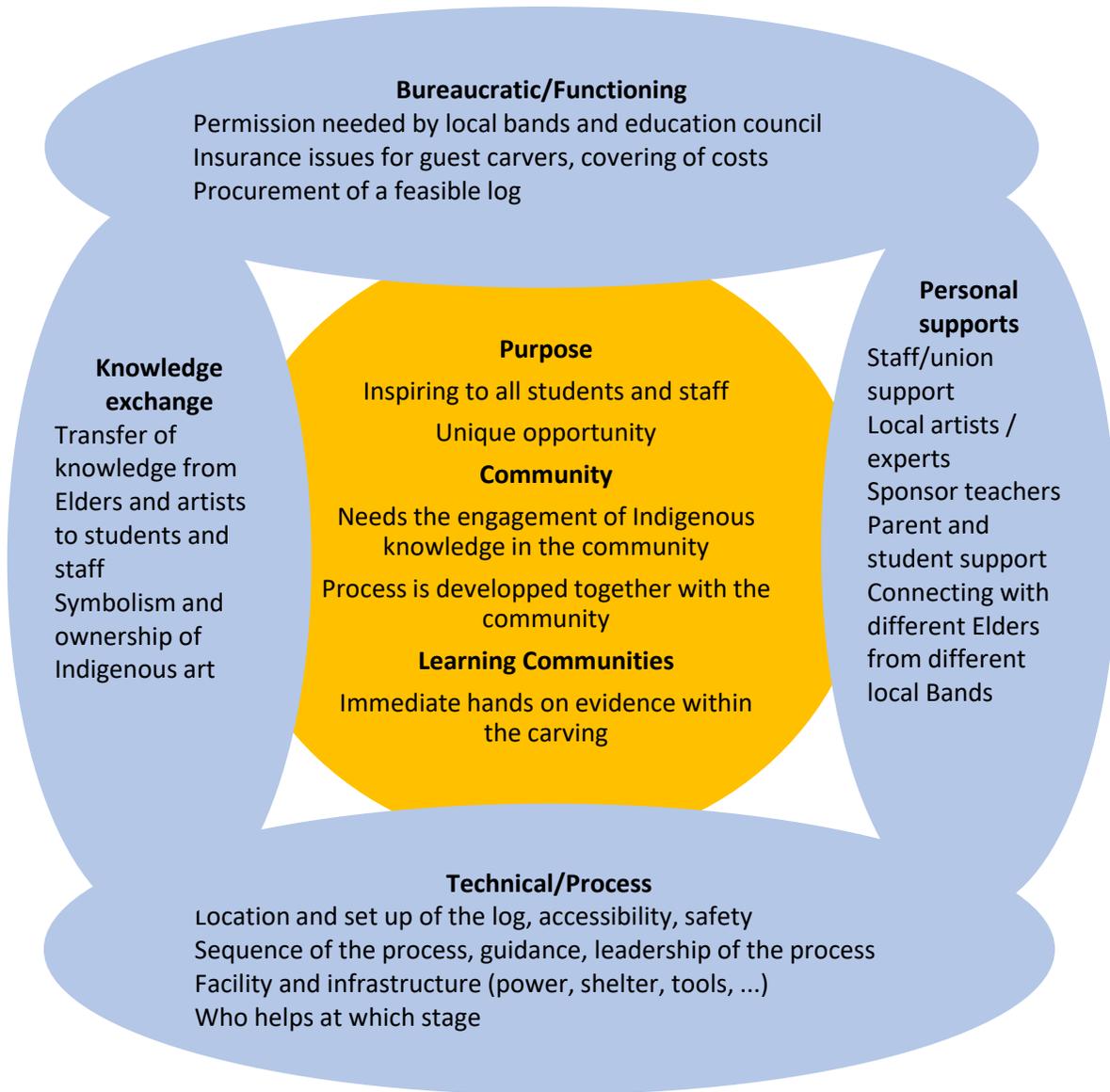
Recommendations Towards a Solution

Looking at complex adaptive systems such as an education system, we can liken them to a living organism. Indigenous students and their families are ailing within our current system and to come up with a process of healing, we have to analyze individual elements of the system as was done in previous parts of this paper. Once we look at ways of remedy, we have to consider the organism as a whole, and avoid healing one part by depriving another.

With the awareness of balancing change substance and process, I will use the *network characteristic* of *Relations*, Kowch (2013), in combination with Hargreaves' and Shirley's (2012) three components of change, discussed above, and their attributes of the Fourth Way change approach. In an attempt to take this theoretical exercise into a more pragmatic realm, I will use Vignette 1, describing a planned project at a Secondary School in British Columbia, and discuss some of the leadership capacity building needs at all levels, from the ministry of education to the classroom. Due to the vast complexity discussed above, this exercise will only touch on a fraction of possibilities and serve as one example of theory application.

I will now use the components in Figure 2 to identify some of potential tension and disruptions within, and while doing so, we have to keep in mind that this is not an exhaustive practice that, within the scope of this paper, we can only touch on some and not all. As we explore those tensions we have to do so under the umbrella of the overarching outcome, indigenizing and decolonizing schools and creating education environments where Indigenous students feel represented, an environment where students of all ethnic backgrounds can feel represented. Therefore, apparent tensions within this model need to be dealt with and eased in light of these overarching goals: "… decolonization in the Canadian context can only occur when Aboriginal peoples and Canadians face each other across historic divides, deconstruct their shared past, and engage critically with the realization that their present and future is similarly tied together" (Donald, 2009, p. 5).

Figure 2
Practical application of 4ᵗʰ Way Change components within the network characteristic of "Relations", using Vignette 1

Bureaucratic/Functioning
Permission needed by local bands and education council
Insurance issues for guest carvers, covering of costs
Procurement of a feasible log

Purpose
Inspiring to all students and staff
Unique opportunity

Community
Needs the engagement of Indigenous knowledge in the community
Process is developped together with the community

Learning Communities
Immediate hands on evidence within the carving

Personal supports
Staff/union support
Local artists / experts
Sponsor teachers
Parent and student support
Connecting with different Elders from different local Bands

Knowledge exchange
Transfer of knowledge from Elders and artists to students and staff
Symbolism and ownership of Indigenous art

Technical/Process
Location and set up of the log, accessibility, safety
Sequence of the process, guidance, leadership of the process
Facility and infrastructure (power, shelter, tools, ...)
Who helps at which stage

Tensions and Disruptions

Table 6 will focus on tensions within *Personal supports*, identify the tension, list the actors, and look at possible solutions within all the parts of Figure 2, within different levels of educational leadership and under the umbrella of indigenization and decolonization.

Table 6
Potential tension inside "Personal supports" within Figure 2

Tensions:	Actors:
Close working relationship between local artists / experts and the sponsor teacher (woodworking teacher) can create a tension around boundaries and possibly bring in union issues around teacher autonomy or liability concerns	Shop teacher Local Indigenous artist / expert Teacher association

Leadership at the ministry level:
Provide for allowances regarding non-teacher experts working in schools during contract negotiations with teacher association
Negotiate liability clauses allowing non-school employees to use school equipment
Develop guidelines for districts and schools around bringing in local experts

Leadership at the district level:
Work with the local teacher association to ensure all parties are respected
Work with local Bands and Métis Associations to establish protocols around Indigenous experts working in schools

Leadership at the school level:
Bring teachers and local experts together and negotiate mutually respectful cooperation
Include, inform students, parents, and staff

Table 7 will explore tension across Kowch's (2013) *network characteristic* of *Relations*, within Figure 2, using the same organizational structure.

Table 7
Potential tension across "network characteristics" of "Relations" within Figure 2

Tensions:	Actors:
Ownership and protocol around Indigenous art and symbolisms can bring tensions between Indigenous families, Bands, and associations. When ignored by school leaders this can be a significant breach of protocol	*Personal supports* Elders from different Bands Artists / experts from different bands *Technical / Process* Following, respecting protocol *Knowledge exchange* Ownership of knowledge, who has the right to pass it on and to whom Ownership of the process and product *Bureaucratic / Functioning* Obtain permission from all entities involved Procurement of the log, tools

Leadership at the ministry level:
Develop protocol outlines that can be applied and tailored to local use by districts and/or schools (asking permission, who to ask, how to ask, …)
Establish a process respecting to Indigenous rights regarding procurement of materials

Leadership at the district level:
Establish close working relationships with local Indigenous Bands and Associations (principal or director of Indigenous relations)
Directly negotiate or advise and support individual schools through the process
Establish a well-balanced and all-inclusive resource list within the district

Leadership at the school level:
Ensure protocols are understood, respected, and followed at all times and at all levels
Check in with Indigenous Bands and Associations regularly
Work with students, parents, and teachers to be on the same page
Ensure permission is obtained at each step, ask twice

Table 8 will explore tension across Kowch's (2013) *network characteristic* of *Relations*, as they include the *4th Way Change components* within Figure 2, again following the same organizational structure.

Table 8
Potential tension across "network characteristics" of "Relations", Including the "4th Way change components, within Figure 2

Tensions:	Actors:
Misguided sequence of approach in planning such a project at the school level can create distrust with Elders, Bands, Associations, artists, staff, and students	School leaders and everyone involved or mistakenly not involved
Leadership at the ministry level: Develop memoranda of understanding with provincial Indigenous organizations around the value and importance of such project towards indigenizing and decolonizing schools Develop process outlines with Indigenous organizations to guide districts and school along the path	
Leadership at the district level: Establish close connections to all local Indigenous entities, possibly a director/principal of Indigenous relations Offer professional development around Indigenous relations for administrators, teachers and support staff	
Leadership at the school level: Ensure provincial and district guidelines are known and followed Establish a learning committee, department, growth team with a focus on Indigenous relations Build connections to local Indigenous entities, visit events and celebrations, be visible	

The examples of potential tensions outlined in Tables 6, 7, and 8 reveal some of the many intricacies within a complex adaptive system such as leadership in education with a focus on indigenization and decolonization of school environments. While the complexity can appear as overwhelming, the detailed break-down and analysis at this micro level reveals applicable solutions and patterns within those solutions. The importance of connecting epistemologies and looking for common ground to meet becomes apparent. In addition, this exercise reveals the overarching responsibility at the ministerial level of education to guide such a process of leadership, within such a complex adaptive system, and to guide it at each level simultaneously, as missteps along the way, trial and error approaches, can cause damage in trust that will be difficult to manage in view of the many historic wrongs inflicted on Indigenous populations by education systems on differing levels.

Conclusion

As indicated by many scholars, leadership within a complex adaptive system cannot be a one-person operation and it cannot take place in an environment of improvisation or trial and error; this is especially true in complex adaptive systems such as education within its wider community (Fullan, 2006; Hazy & Uhl-Bien, 2015; Kowch, 2013; Lichtenstein et al., 2006). Uhl-Bien et al. (2007) aver: "In this post-industrial era, the success of a corporation lies more in

its social assets-its corporate IQ and learning capacity-than in its physical assets" (p. 300). Linda Tuhiwai Smith (2012) explicates: "The language of imperialism may have changed, the specific targets of colonization may have shifted and Indigenous groups may be better informed, but imperialism still exists" (p. 103). Her explanations expand to the fact that "it was not just Indigenous populations who had to be subjugated. Europeans also needed to be kept under control, in service to the greater imperial enterprise" (p. 24). Looking at the accounts by Linda Tuhiwai Smith, through the lens of the above statement by Uhl-Bien et al., it becomes essential to recognize that imperialism was a part of industrialization and that in this post-industrial era, we also need to make a conscientious effort to enter a post-imperialist era, an era where we become to realize that these social assets, the corporate IQ and learning capacity must include the epistemologies, ontologies, and axiologies of all Indigenous groups, a process that cannot happen fortuitously, a process that needs to be orchestrated at the top governing levels, including all entities within such a complex adaptive system.

   The outset of this paper was to critically identify a persisting leadership problem and attempt to find a solution within leadership capacity building. Figures 1 to 4 (Appendix A), outline some of the ways we can move education away from its industrial origins and incorporate the social assets and corporate IQ often untapped in schools, including staff, students, and their wider communities. This is especially true for the tremendous potential of knowledge, resting, all too often dormant, within Indigenous communities. In this paper, I was also able to connect theoretical concepts of leadership capacity building with practical solutions, as they apply to the processes of decolonization and indigenization of our public schools and in the process of closing a persisting achievement gap between Indigenous and non-Indigenous student groups.

   Lichtenstein et al. (2006) explain leadership as a process found within interactions between people and their ideas. While Figures 1 to 4 (Appendix A) attempt to serve as a rough road map towards a solution of decolonizing and indigenizing our schools, and in the process narrowing the gap between non-Indigenous and indigenous students, the solution, the answer, cannot be known and can only be discovered on the capacity building journey, as we explore and experience those interactions and tensions in the spaces between people and their ideas.

   Uhl-Bien et al. (2007) discuss the concept of *Knowledge Era* and how this era brings altered needs to leadership, away from bureaucracy but based in complexity with many of its details yet to be defined. Hazy (2011) proposes: "The notions of leadership and effective leadership apply to the individual, the group, the organization, and society: each attending to a purpose, and each supporting a different constituency" (p. 167). At the ministry level, we need to recognize the limits of hierarchical leadership practices in this new Knowledge Era. While we cannot direct indigenization or decolonization at the school or classroom level, we can purposefully alter that complexity to support the generation of an environment where Indigenous students will feel represented in our public schools and as a result the achievement gap between non-Indigenous and Indigenous students narrows.

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Appendix A

Table 9:

BC School Completion Certificates (Evergreen Diploma) (Schaub, 2016)*:*

Year	Indigenous Students			Non-Indigenous Students		
	Total Grade 12 Students	Number of Graduates	Percentage	Total Grade 12 Students	Number of Graduates	Percentage
2006/07	4,369	172	4%	49,438	485	1%
2014/15	5,926	259	4%	48,460	669	1%

Note. Evergreen Diplomas are awarded to students not completing all the required graduation requirements yet working on a personal graduation plan

BC Certificate of Graduation (Dogwood Diploma):

Year	Indigenous Students			Non-Indigenous Students		
	Total Grade 12 Students	Number of Graduates	Percentage	Total Grade 12 Students	Number of Graduates	Percentage
2006/07	4,369	2,202	50%	49,438	37,527	76%
2014/15	5,926	2,953	50%	48,460	35,625	74%

BC Adult Graduation Diploma (Adult Dogwood Diploma):

Year	Indigenous Students			Non-Indigenous Students		
	Total Grade 12 Students	Number of Graduates	Percentage	Total Grade 12 Students	Number of Graduates	Percentage
2006/07	4,369	257	6%	49,438	1,526	3%
2014/15	5,926	564	10%	48,460	2,059	4%

Table 10

A Framework of the four Ways of Educational Change (Hargreaves and Shirley, 2012, p. 10)

Pillar:	Components or Principles	The First Way	The Second Way	The Third Way	The Fourth Way
Purpose and partnership	*Purpose*	Innovative; inconsistent	Markets and standardization	Performance targets; raise the bar, narrow the gap	Inspiring; inclusive, innovative mission
	Community	Little or no engagement	Parent choice	Parent choice and community service delivery	Public engagement and community development
	Investment	State investment	Austerity	Renewal	Moral economy
	Corporate Influence	Minimal	Extensive-charters and academies, technology, testing products	Pragmatic partnership with government	Ethical partnership with civil society
	Students	Happenstance involvement	Recipients of change	Targets of service delivery	Engagement and voice
	Learning	Eclectic and uneven	Direct instruction to standards and test requirements	Customized learning pathways	Truly personalized; mindful teaching and learning
Principles of Professionalism	*Teachers*	Variable training quality	Flexible, alternate recruitment	High qualification, varying retention	High qualification, high retention
	Associations	Autonomous	Deprofessionalized	Reprofessionalized	Change Makers
	Learning Communities	Discretionary	Contrived	Data-driven	Evidence-informed
Catalysts of Coherence	*Leadership*	Individualistic; variable	Line managed	Pipelines for delivering individuals	Systemic and sustainable
	Networks	Voluntary	Competitive	Dispersed	Community focused
	Responsibility	Local and little accountability	High-stakes targets, testing by census	Escalating targets, self-monitoring, and testing by census	Responsibility first, testing by sample, ambitious and shared targets
	Differentiation and Diversity	Underdeveloped	Mandated and standardized	Narrowed achievement gaps and data-driven interventions	Demanding and responsive teaching