

Using a pandemic and personalized learning to modernize pedagogy

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Abstract

This paper outlines the challenge of meaningful reforms in education and how a global pandemic can help if used effectively. It begins by outlining the need for changes in pedagogy and proposes using personalized learning as a vehicle to change mindsets about contemporary learning practices. The paper explores the opportunities for change that COVID19 has presented and then, looking at contemporary research, outlines an approach to develop collective leadership through networked inquiry in order to effect sustainable change. The paper finishes with an analysis of the likelihood of this reform succeeding.

Keywords: 21st Century Learning, Change, Collaboration, COVID19, Engagement, Inquiry, Leadership, Personalized Learning, Professional Capital, Reform, Sustainable Change

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Introduction

This research and analysis focus on how one can use the demands caused by the global pandemic of COVID19 to advance the strategy of personalized learning to improve equity, engagement, and student preparation for the next stages of their learning journeys. How can a pandemic serve as a catalyst to move education forward? If leveraged effectively it can help change mindsets which have been the biggest challenge to educational change for decades (Elmore, 1996; Fullan, 2016; Tyack & Cuban, 1995). While the mindsets of students and parents are of tantamount importance and are powerful, the purpose of this paper is to focus on what can be done to support a change in practice of professional educators within systems of education to embrace and effectively use personalized learning to support student learning, growth, and development. More specifically, what can leaders do to support the change in practice of the teachers in a single community middle school as an example of what can be done on a larger scale?

Why personalized learning – clarifying meaning

21st Century Learning, like many terms in education, has become so ubiquitous as to almost lose meaning. In general terms, the phrase was used to denote changes needed for students to be successful in the new millennia. These were students born to a world of accelerating change that promised to require different skill sets for success than those required by previous generations. As Mishra and Kereluik (2011) pointed out from their review of 10 popular 21st Century Learning frameworks, most of the skills identified as important were important for the success of prior generations, adding to the meaninglessness of the term.

However, there is a reason many groups and organizations have focused their resources in this area, and that is the ongoing attempt by reformers to “make learning consistently more lively, challenging, and intellectually engaging” (Cohen & Mehta, 2017, p.647). The turn of the century, with the increased rapidity for change in society, became a catalyst for renewed calls for reform. This was also fueled by calls from economists and industry for a workforce with different skills (Abbott & MacTaggart, 2010; C21 Canada, n.d.; OECD, 2018; Schleicher, 2018; Wagner & Dintersmith, 2015) which made it easy to renew the call for “different” mindsets, aptitudes, and approaches. This is also a testament to the challenge of changing pedagogy presents for educators.

Though not new concepts or concerns, there was increasing research being done about student engagement and its importance for student success (Trowler, 2010) and the lack of it in schools (Friesen, 2009). Increased and improved neurological research about learning and brain development (Benesh et al., 1998; Posner, 2010; Sousa, 2011) further fueled the need for changes in educational approaches. Schools were roundly criticized for their “factory model” that moved children along the conveyer belt by “production date” rather than educational need or value (Abbott, 2010; Chen, 2010; Robinson, 2001; Ungerleider, 2003). Increasingly there were calls for personalized education (Littky, 2004; McCaffrey, 2019; Wagner, & Dintersmith, 2015; Zhao, 2012) to address the challenges of student engagement, needs for a changing society, and increased diversity in classrooms.

Personalized education, like 21st Century Learning, is a term that has grown to encompass many things and, thus, has lost a lot of its meaning (Bulger, 2016). Educational historian, Larry Cuban (2018b), identified the challenge and has made a clear distinction that personalized learning is a strategy to achieve the policy ends that voters want, “graduating

engaged citizens, shaping humane adults, getting jobs in an ever-changing workplace, or reducing economic inequalities”, not policy itself. There are great opportunities for profit in this maelstrom and many Silicon Valley companies are jumping at the opportunity to capitalize on the confusion with lofty, unsupported, claims of individualized learning for all (Boninger, Molnar & Saldana, 2020; Cuban, 2018a). In addition to this, leaders within the education sector struggle to clearly articulate what personalized learning is, what ends it serves, and how it can meet the needs of competing interests (Cuban, 2018b). Attempts have been made to clarify terms often used as synonyms to address this.

Within this umbrella of personalized learning are many different terms and approaches (Pane, Steiner., Baird, & Hamilton., 2015), i.e. “deep learning” – tends to have engaging contexts, open-ended questions, and complex connections (Seif, 2018); “competency-based learning” which, according to the U.S. Department of Education (n.d.) often refers to allowing students to progress through defined programs and courses at their own pace; and “student-centred learning” tends to denote students learning at their own pace with a variety of teaching styles and formats available to them (Glowa & Goodell, 2016). Bray and McClaskey (n.d.) take the definitions of three related educational approaches from the US Department of Education (2010) and change the focus to learners from instruction to demonstrate the differences between personalization, differentiation, and individualization of education. Differentiation adjusts to the learning needs of a group of learners. Individualization accommodates the learning needs of individual learners. Personalization goes much further and is the co-creation of curriculum with students to fit the different objectives of each learner. It is about “encouraging learner voice and choice” (p. 13). J. H. Clarke (2013) indicates, “The difference between individualization and personalization lies in control. We can individualize education by imposing it, but students

choose to personalize their own learning. Their volition drives their inquiry” (pp. 6-7). This paper examines the opportunity presented by the COVID19 pandemic to do what years of research has been unable to do, change teacher practice to be driven by the principles of personalized learning.

Local context

The community middle school in this study serves students in grades six through nine from a low socio-economic neighborhood. There are three-hundred-sixty-three students with literacy and numeracy levels ranging from grade two through twelfth grade. Over the past four years it has transitioned from a Junior Secondary School model to one that more closely reflects a Middle School (National Middle School Association, 2003). Each teacher has a homeroom of twenty-five students and is paired with another teacher with a similar class: they have one-hundred-fifty minutes of common preparation time each week. Homeroom teachers are expected to support student learning of all five core subjects (English Language Arts, Mathematics, Physical and Health Education, Sciences, and Social Studies). Teachers either work with students registered in grades six and seven, or with students registered in grades eight and nine. The students from the younger grades remain with their homeroom teacher for the subsequent year, so each teacher works with their students for two years. Teachers work within the framework of British Columbia’s Redesigned Curriculum (British Columbia, n.d.) with its focus on flexible learning and integrated curricula. Over the past four years teachers have focused on “improving the life of each student” as the school goal (Lake Trail Community School, n.d.) and have used that to reflect on their practices. Their individual and collective professional development has been guided by the Spirals of Inquiry (Halbert & Kaser, 2013) as has the recent school evolution (Fussell, 2018). This past year the school community were continuing their evolution, taking

significant strides toward improving how inclusive their practices were (Fussell, 2020a) but continued to struggle accepting personalized learning as the foundation of pedagogical practice.

With the COVID19 crisis the four things needing change in education: changing pedagogical approaches; regrouping of adults; regrouping of learners; and the regrouping of learning, happened over-night. This could prove to be the most powerful learning moment for educators, or not (Silver Lining for Learning, 2020). Not only were educators forced to confront many of their assumptions, but they were also thrust back into the role of the learner which should help inform their practice as their perspectives change. The artificial structures of control that educators had in their buildings and classes were gone and the power to control learning shifted to our students. Much of the “grammar of schooling” (Tyack & Cuban, 1995) was rendered impotent by COVID19. However, when surveyed this spring and asked how they knew if their students were doing well with remote learning, most of the teachers in this school gave answers that demonstrated they were assessing privilege rather than growth. Responses were dominated with comments about participation in class meetings and submitting of assignments. Without reflection, this serves as an indicator that the significant change in learning platforms is not sufficient to change teaching practice without mindful and conscious guidance.

In June students, parents, and teachers were surveyed and participated in discussion groups concerning their experiences over the previous 3 months – the time impacted by COVID19 (Fussell, 2020c). These survey results were the guiding force behind a plan the school learning community created to guide their re-entry to school in September 2020 (Fussell, 2020d); however, what was not part of the plan was how to overcome the traditional stasis of educational reform that would prevent a shift to personalized learning which is necessary for student success in such volatile times.

Significance

Students are increasingly not engaged in their learning or in the learning process (Wagner & Dintersmith, 2015). The most recent example of this came in the spring of 2020 when school buildings were closed, and students were forced to learn remotely. At the school central to this paper, 48% of the students were significantly not engaged or participating in the teaching offered by their teachers for more than three months. According to medical experts, the chance of schools closing again is very likely. Without the artificial structures of “real school” (Tyack & Cuban, 1995) many teachers struggled to support student learning. Personalized education has shown positive impacts on student achievement in the short term (Pane, Steiner, Baird & Hamilton, 2015) and proponents argue that empowering students in this way will help them develop into well-rounded adults who can participate in the workforce of tomorrow (Bray & McClaskey, 2015; Patrick et al., 2016). Basham, Hall, Carter & Stahl (2016) demonstrated, “when education is personalized, it has the potential to provide immense growth outcomes for learners with disabilities” (p. 135). With increasingly urgent calls for students to be active leaders in their learning (Thinking Collaborative, n.d.; Wagner & Dintersmith, 2015; Wehmeyer & Zhao, 2020) the importance of personalized learning has increased.

Such calls have been present for decades with little movement towards them. How can the education system increase personalized learning considering the traditional stasis and inertia of traditional educational practice? The premise of this paper is that the global pandemic of COVID19 has produced the conditions conducive to meaningful change in pedagogical approaches. Leaders have an opportunity to support teacher growth and development toward more personalized means of instruction, and students and their families have an opportunity to change their relationships with teachers to become partners in the learning process. However,

none of this will happen without mindful management and leadership within the education sector.

The primary value of this paper is not in the shift of pedagogy to personalized learning, it is in the examination of opportunity presented by a significant catalyst and what is necessary to capitalize on that opportunity. Many talk of “silver-linings” when challenges occur, and the responses to COVID19 have been no different. However, little is written about what needs to happen in order to realize such silver-linings, especially in education. Personalizing learning provides one with the “why” for change, but this paper provides a blue print of the “how” to achieve meaningful change in education an oft sought after goal.

Outline of the paper

After this introduction, this paper has four main sections followed by the conclusion. The first major section provides a review of the research in two key areas. The first area looks at research about the conditions for effective reforms. Cohen and Mehta (2017) identified five conditions that increase the chances of change in education. This section outlines each of the five conditions necessary for change in education and demonstrates why there is hope that positive change can come from the challenges of a global pandemic. It is argued that each of these five conditions now exists, creating an environment conducive to meaningful and lasting change. However, to do this, educators need to develop their capacity through shared ownership of the new challenges, clearly identified – addressing inequity and supporting growth in literacy, numeracy, and well-being. This will require skilled leadership.

The second key area of research concerns leadership skills and approaches necessary to develop the attitudes, aptitudes, and behaviours for meaningful, positive change in education during challenging times. The type of leadership needed will create and support cultures that

embrace risk-taking to benefit children. This section looks at the type of leadership necessary for conditions of volatility, uncertainty, complexity, and ambiguity. It explores research on leadership that helps people develop emotional and spiritual engagement, social and moral justice, and improved performance in work and life, while building sustainable success for their organizations. It also examines research about building individual and systemic capacity. Leadership that creates the conditions for shared learning, efficacy and responsibility is required in times of tumult in order to capitalize on the opportunities. This is not done by protecting from ambiguity and chaos (Uhl-Bien & Marion, 2011) but by developing a culture with a growth mindset built on trust, empathy, and support.

The next major section of this paper presents the proposed reform itself and how it will be supported. The global pandemic has challenged the grammar of schooling and has reverted many teachers to being active learners. The conditions described by Cohen and Mehta exist because of the pandemic and it will require skilled leadership to capitalize on this opportunity. This section briefly describes the opportunity and develops the case for why a small community middle school is positioned to capitalize on that opportunity to increase the use of personalized learning to deepen and extend student success in school and beyond. Four goals and plans are developed to use networked professional teams to achieve them:

1. To increase the engagement of our students with their learning;
2. To provide learning that is personalized to student interest and need;
3. To build teacher capacity in using personalized learning to support student development;
4. To have our learning community more closely align with the principles of modern learning;

These plans provide the four structures identified by Elmore (1996) for connecting big ideas with practice and with Eckert's (2019) work on collective leadership development. Wiseman (2017), Fullan (2016), Fullan and Hargreaves (2016), Eckert (2019), Berry (2016) and others demonstrate the value of developing teacher efficacy for student success through improved collaboration and networking. A key element of this reform is to have teachers working on multiple teams using a standardized structure for networked inquiry (Halbert & Kaser, 2013) that puts student engagement and personalized learning at the forefront. The staff of this community middle school have used this structure for inquiry, learning, and growth for the past four years with varying degrees of success. However, it is a format they are familiar and comfortable with and is one with demonstrated effectiveness in their school, district, province and beyond if used with fidelity.

This is followed by a discussion about how the reform will be analyzed for success and a discussion about the likelihood it will be successful. It is important to do this in order to take this reform from a niche or sub-system reform and use the process at scale. There are many different tools available to analyze the reform's success, several are presented, but selecting the best tool requires clarity about what data is being sought and what is going to be done with that data. The second part of this section looks at 11 elements (Ginsberg, 2020b) necessary for change to work and how this approach addresses those elements.

This paper finishes with a conclusion including some of the challenges anticipated with this approach and reform. Three main challenges are discussed: time, effective collaboration, and the plethora of pressures teachers are faced with. While this paper begins from a goal to change pedagogical practice, its real value is in the process presented to effect change. Using a networked inquiry model to grow professionals is not a new approach, but is one that has not

received enough study, nor is it regularly used. More significantly, little has been written about using a pandemic to improve educational pedagogy at the student level in common and specific contexts.

Review of the research

Research on reforms in education

“It’s only after you’ve stepped outside your comfort zone that you begin to change, grow and transform” (Bennett, n.d.). During the current COVID19 pandemic educators have had to significantly step outside their comfort zones which has provided an opportunity to reflect, change, grow and transform. However, the education sector has been particularly resilient in resisting change for more than 100 years (Fullan, 2007; Tyack & Cuban, 1996). Fullan (2007) argues persuasively that change begins with action and happens when one thinks and learns about those new actions. The seismic shifts in learning models that happened this past spring forced changes in practice and now there is an opportunity to think and learn from those shifts in order to make good pedagogical changes in educational practices. This section outlines the conditions necessary for change in education and demonstrates why there is hope that positive change can come from the challenges of a global pandemic.

Cohen and Mehta (2017) identified five conditions that have created fertile ground for change initiatives. They provide examples and evidence of significant changes that occurred when each of the conditions was present. Currently, the potential to have all five conditions present, underscores the potential for meaningful and important change in educational practices. The following sections look at each of these five conditions to assess whether they exist in the current context.

Finding solutions to current problems

Cohen and Mehta (2017) identified that reforms that solve current problems, for those working in and around education who recognize the problems, have an increased chance of being successful. With the current ambiguity caused by the COVID19 crisis, there are multiple problems that need solving. Being forced to change education delivery models overnight surfaced problems within education systems. Some of these problems were easy to see – families didn't have access to technology – and some were more challenging to see – psychological impact on children, their families, and their teachers. As this pandemic continued, many sacred cows have been slaughtered and much capacity has been built. One example of this in the school district being studied was the relative antipathy to adopt Microsoft Teams as a platform to collaborate and to support learning. People throughout the district have had access to this technology for several years with few people trying to use it despite much encouragement. However, beginning April 1, 2020, the entire district rapidly moved to full systemic implementation and steadily built individual and systemic capacity as the spring wore on. On reflection in June, most have indicated that it is a platform that will be a part of their teaching practice moving forward (Fussell, 2020c). Teachers saw a problem and addressed it through change.

The challenge is not having practitioners find what problems currently exist, it is identifying which challenges hold the highest priority for attention. This is a very important piece to address for three reasons: educators cannot fix every problem or challenge; educators need to use their limited resources on the most important challenges, not the easiest ones; and educators need to address the challenges together in order maximize the limited resources.

Based on the experiences staff, parents, and students had in the spring of 2020 several challenges and problems were identified requiring attention (Fussell, 2020c).

Technology

- Availability
- Capacity – students, parents, teachers
- Effective use
- Vulnerability

Equity

- Mitigating for the socio-economic divide
- Feeding students and families
- Learning challenges and support
- Health care

Resources

- Time – managing and using
- Space – work and learning situations
- Money
- Human – health, capacity, opportunity

Learning

- Effective strategies
- Appropriate priorities and expectations
- Realistic opportunities

Engagement

- Students and families opting out
- Seeing value in the tasks being demanded

Isolation

- Mental health
- Vulnerable homes
- Student and teacher support

Many of these challenges did exist prior to March of 2020; however, the changes this school learning community was forced to make due to the COVID19 pandemic brought many of them into such stark relief that they could no longer be glossed over and ignored.

Illuminating a need and helping teachers see it

With the grammar of school (Tyack & Cuban, 1995) removed teachers were no longer able to hide behind artificial structures of control. Teachers have their classes with students assigned to them based on age, put content into subjects, and given grades and credits as

evidence of learning. Tyack and Cuban explain that “[O]nce established, the grammar of schooling persisted in part because it enabled teachers to discharge their duties in a predictable fashion and to cope with the everyday tasks that school boards, principals, and parents expected them to perform: controlling student behaviour, instruction heterogeneous pupils, and sorting people for future roles in school and later life” (p.86). This “grammar of schooling” has persisted for more than 100 years, despite the many changes in society and societal needs. Overnight, much of the structure known so well disappeared. Students had more control of their learning than their teachers did, diversity was amplified, and there was nothing predictable. Still, many invisible walls remained, but those too become more malleable. Partially in response to the items mentioned in the previous section, teachers began to see and understand the importance of and the value in personalized learning, and they were forced, by necessity, to use tools that could amplify personalized learning. Educators were forced to look at many different variations of equity challenges, and these looks heightened awareness and shared responsibility to address these challenges among educators (Silver Lining for Learning, 2020).

Many of the conversations that occurred were because educators were forced to be learners again and this challenged many of their assumptions and biases. In many cases, teachers are those who have done well in a system and are predisposed to perpetuating that system based on their successful experiences. Few have struggled as learners; therefore, it can be challenging to empathize with students who do. Being forced to change as dramatically as school systems were forced to change in March, required many teachers to be put into the unfamiliar role of being the learner not the expert, and many struggled. This dissonance changed many conversations and amplified empathy for the student experience. This shift in perspective uncovered several misconceptions about student motivation, engagement, and equity. It can be

very difficult for adults to understand that students will do what they can do, so teachers need to figure out what is getting in the way for their students (Greene, n.d.); however, throughout this spring, educators received first-hand experience of their own limitations getting in their way, not a lack of desire to do well. Teachers responded differently to this challenge, but all were affected.

Demands from the larger political, economic, or social structure that require change

Cohen and Mehta (2017) found that many reforms work if “there was strong popular pressure on and/or in educational organizations or governments to accomplish some educational purpose” (p. 646). In this case, millions of youth needed to be educated without humans being in bricks-and-mortar schools, and it happened. School systems pivoted on a dime and worked to meet student learning needs in a fundamentally different context. However, if educators want to capitalize on this shift and significantly change the way students are educated there needs to be a connection between the big ideas and the practices themselves that are at the core of schooling (Elmore, 1996). The big idea of personalizing learning will not take hold until the finer grain details of pedagogical practice relate to it. Elmore (1996) identified four structures that need to be created for this to happen.

1. Develop strong external normative structures for practice. This is important for several reasons. It gives teachers something to measure their capacity against as they develop and grow. It provides transparency for the general public about what good practice can look like. Cohen and Mehta (2017) identify the “failure of teaching to crystalize as a full-fledged profession” (p. 649) as one of four factors hindering positive reforms. By helping to increase the transparency of good practice, educators can increase their level of professionalism. It is important to note here that these structures must be created with

those planning to use them. As Fullan (2007) said, “external accountability does not work unless it is accompanied by development of internal accountability” (p. 60) and for this to happen the information needs to empower them and help them to be successful (Kantor, 2004).

2. Develop organizational structures that intensify and focus so that there is diversity between those committed to the reform and those “skeptical and timid” (Elmore, 1996, p. 20). These units need to be small enough so that members can exert real influence over each other’s practice. Fullan (2007) referred to this as the evolution of positive pressure; pressure that motivates and seen as fair and reasonable. This concept is also reflected in the Policy Report for Pomona Unified School District in California (Berry, Bishop & Cesar, 2019) when the authors talked about the spreading of teaching expertise systemically across the district, one principal commented “[W]hen it starts to become peer pressure...that’s when movement happens. It’s when people begin to learn from each other” (p. 9). Hargreaves, Boyle, and Harris (2014) identified the power of teams and teamwork for both “pushing and pulling” people within a high functioning organization.
3. Create intentional processes for the reproduction of success and make them clear. These processes need to be visible and understood. Elmore (1996) described five different types of growth. Incremental growth has more teachers teaching in a certain way year over year until all are using the same practice. Cumulative growth adds to incremental growth by supporting all teachers to move forward in their practice despite where they are on the learning continuum. Discontinuous growth works like a “chain letter” (p. 22) where an initial group of teachers learns a new practice and then individually, they share

with others. Unbalanced growth involves pooling engaged practitioners and supporting their growth together, harnessing their abilities to help each other to grow and develop. The fifth process Elmore referenced he calls “cell division, or reproduction” (p. 23) and involves “systematically increasing the number and proportion of schools” or teachers within a school “characterized by distinctive pedagogical practices” (p. 23). Each of these approaches have their uses and can be used together; however, it is important to make the process transparent in order to allow for replication and analysis.

4. Create structures that promote learning of new practices and incentive systems that support them. There are many ways to do this well and many have tried but failed. Many incentive systems have not achieved the goals they set out to achieve (Elmore, 1996). However, Michael Fullan (2007) identified several keys for achieving successful and meaningful change in education that are focused on promoting learning of new practices with powerful incentive systems. Similar to Greene’s (n.d.) work that demonstrated people will do what they are able to do, Fullan (2007) called on change leaders to assume that lack of capacity is the initial problem and to work on it continuously which will add to the collective efficacy of a group to improve student learning (p. 58). One effective way to achieve this is to tap into people’s dignity and sense of respect (p.44) which is the key to their feelings and motivation. Another key, according to Fullan, is to ensure that the best people are working on the problem (p. 52). These people will increase their capacity, and their peers will have some difficult decisions to make about their own professional growth, motivation, and engagement. Connected to this is the recognition that all successful change strategies are “socially based and action oriented” (p. 52), so it is important to focus on strong relationships to

increase trust, social capital, and social cohesion. As Fullan (2007) explained, “If the threat of death does not motivate people who are ill, what on earth is going to motivate teachers to change? The answer has to be deep engagement with other colleagues and with mentors in exploring, refining, and improving their practice as well as setting up an environment in which this not only can happen but is encouraged, rewarded, and pressed to happen” (p. 55).

Provision of tools, materials, and necessary resources

Cohen and Mehta (2017) found that some reforms were successful because they “either offered the educational tools, materials, and practical guidance educators needed to put the reform into practice, or they helped educators to capitalize on existing tools, materials and guidance” (p. 646). For teachers to be successful with reforms, they need to be supported in real and tangible ways. One cannot reasonably expect teachers to provide remote learning opportunities without an infrastructure in place to support that practice. Nor can one reasonably expect, systematically, for educators to be able to institute best practice in a foreign learning platform, overnight. Educators need practical guidance and support in order to be able to make such dramatic changes, well. While tools can be easily provided, it is the use of said tools that is most pressing. Materials that work in traditional educational settings, are rarely effective in remote ones. The COVID19 pandemic brought this into clear focus and shone a light on the need for collective guidance and support. Too often grand ideas and principles are not coupled with detailed programs for practice. As Cohen and Mehta explain, “Absent such programs, few teachers could turn principles and explanations into curriculum, lessons, and opportunities to learn more” (p. 661).

One powerful way to do this is through collaborative professionalism (Fullan & Hargreaves, 2016). This approach capitalizes on the dichotomies often seen in education. Teachers have individual autonomy but work within a collective and have responsibility to that collective. Conversely, the collective has responsibility for supporting the individual. Teachers have significant impacts on their classes, but so does the whole school learning community. Teachers can work to improve their own practice individually, but their growth will be limited; this pandemic has shown the need for a collective learning approach. By working together purposefully, teachers can harness their professional learning and their professional development to learn the best utility of the tools, to share powerful materials, and to provide and receive guidance which supports their efficacy.

Consistency with local values of the learning community

The fifth condition Cohen and Mehta (2017) identified that provided context supporting reforms was having those reforms reflect the values of the educators, parents, and students they affected. This was shown to be particularly powerful for niche reforms, but also impacted some system-wide reforms as well. Education has many diverse draws and priorities and finding alignment and agreement can be very challenging. However, there seems to be almost global agreement about two priorities in education going into the fall of 2020. The first is closing the achievement gaps and raising the achievement bar. This is not a new phenomenon, however, the impact of remote and then hybrid learning on student learning has significantly exacerbated the already existing gaps. Fullan (2007) identified that key to successful change in education was defining “raising the bar and closing the gap” (p. 44) as the overarching goal “because it has so many social consequences” (p. 45). All other work should be in service to this imperative. As Dr. Easton-Brooks (2020) commented in his discussion at the University of Kansas Virtual

Summer Conference, it is more of an opportunity gap than an achievement gap. With the move out of school buildings, the most vulnerable learners had their vulnerabilities amplified and educators around the world recognized this and are motivated to address it.

The second priority that seems to have local and international agreement is the need to focus on the three basics of education: literacy, numeracy, and the well-being of students. When systems were forced to streamline learning programs, these three foci became the foundation for all else. This aligns with Fullan's (2007) recognition of their importance as essential foundations for "living in the knowledge economy of the 21st century" (p.48).

Summary

The response to the COVID19 pandemic has created a valuable opportunity to evoke systemic change in education. Cohen and Mehta (2017) found five conditions, each of which successful reforms have grown out of: the current context created by the pandemic provides all five of these conditions. Fullan (2007) and Elmore (1996) provided guidance about how this can be done through building powerful learning teams and making that learning deliberate and transparent. This could provide for the building of capacity through shared ownership and networked intelligence. However, this opportunity will go unrealized if it is not cultivated effectively by good leadership. The next section presents a review of research that can be used to help guide leaders in navigating the untapped potential this pandemic has provided for meaningful change.

Research on leadership for change

According to N. Clarke (2013), "[T]he role of leadership is to facilitate and capitalize on the random interactions of aggregates and create the conditions that promote bottom-up behaviors from which human and social capital give rise to distributed intelligent activity," (p.

138). The COVID19 pandemic could be described as a random interaction that has created conditions that can promote the bottom-up behaviours that lead to meaningful change. Educators are on the edge of uncertainty and a key task is to support new approaches and systems emerging to improve student success. This section provides a review of literature pertinent to the leadership skills and approaches necessary to develop the attitudes, aptitudes, and behaviours for meaningful, positive change in education.

Leadership for VUCA

In order to support the challenges of complex change, leaders need to consciously develop their leadership for times and contexts of VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) (Nangia & Mohsin, 2020). Those organizations able to work with VUCA were able to take this seismic disruption and innovate for long-term improvement. This takes very different leadership skills than when times are calm and predictable (Fussell, 2020b). This begins by gaining clarity about one's values and beliefs and then using that clarity to guide actions and priorities. Those values and beliefs need to be clearly articulated and visibly acted on (Fullan, 2016; Hargreaves, Boyle, & Harris, 2014; Kay & Greenhill, 2013; Wiseman, 2017). Organizations that do not have a constructivist, growth-oriented belief system will struggle with VUCA.

The role of strategic management, then, is not to reduce the level of uncertainty (i.e. diminishing surprise in the organization) but to accept and even promote uncertainty, surprise, unknowability, and open-endedness. In direct contrast to leadership approaches advocating the critical role of organizational leaders in establishing vision and aligning employees around that vision, Stacey (1995) says that in changeable systems it is not possible to specify meaningful pictures of a future state (i.e. a vision)...consensus around

some picture of a future state removes the chaos which changeable systems must experience if they are to innovate (Uhl-Bien, M. & Mariaon, R., 2011, pp. 469-470).

Currently, schools are in a context where consensus around some future state is not possible, so with the right leadership, it may be possible to capitalize on the chaos needed for innovation. As Fullan (2007) said, doing this requires having “your best people working on the problem” (p. 51ff). Schools need to create and support cultures that embrace risk-taking (Hargreaves, Boyle, & Harris, 2014) to benefit children. They need to mindfully meet the needs of the most vulnerable without excuse.

Uplifting leadership

From a broad swath of research examining diverse industries and contexts, Hargreaves, Boyle, and Harris (2014) identified six elements that contribute to “Uplifting Leadership.” According to Hargreaves, Boyle, and Harris, uplifting leaders help people within their organization to develop emotional and spiritual engagement, social and moral justice, and improved performance in work and life, all while building sustainable success far beyond expectations. These six elements are not treated as a menu where one can pick and choose what they want to do, as much as they are to be treated as a recipe with each ingredient being necessary for the success of the whole.

One needs to begin with a dream, something that is inspiring and worthy of pursuit. Importantly, especially in this current context, is that dream needs to be held collectively by the learning community (Hargreaves, Boyle, & Harris, 2014, p.18). There are three components to this dream: it goes beyond numerical targets, expresses a sense of collective identity, and there is a clearly “articulated relationship between what has been and what will be” (p.19). Kay and Greenhill (2013) suggested a different approach but with a similar result. They argued that

leaders need to adopt their vision first, with clarity and purpose and then seek community consensus. These are two very different approaches requiring different skills and go beyond semantics. If the learning community co-creates the dreams and aspirations, there is more likelihood they will outlast the leader and will be sustained. Also, the leader is far more likely to be able to develop the kind of individual and collective efficacy Wiseman (2017) suggested and, consequently, will be able to leverage leadership throughout the learning community with greater positive impact (Fullan & Hargreaves, 2016). As Hargreaves, Boyle & Harris (2014) suggested, “The difference between high and exceptional performance comes down to the extent to which members subscribe to and genuinely believe in the organization’s values, vision, and core principals” (p. 43).

Hargreaves, Boyle, and Harris (2014) next identified the importance of creativity and “counter-flow” (p. 45). Creativity and innovation are very important for the livelihood of organizations but creating the climate and culture that support creativity and innovation can be difficult, especially in conservative organizations such as public education. In addition to creativity, Hargreaves et al. argued, is the need for counter-flow, going against the expected or traditional thinking. They explained, “[p]lifying leaders who are successful at taking creative and counterintuitive paths for a greater good are in their element as leaders, and they are equally successful in enabling their followers to find their element too” (p. 47). This aligns with Wiseman’s (2017) findings as well. Diverse networks are more powerful than homogenous ones. Singapore (Jensen, Sonnemann, Robers-Hull & Hunter, 2016) and Finland (Sahlberg, 2015) were able to achieve significant systemic improvement by teaching less and learning more, a counter-intuitive approach. By having teachers in the classrooms less and by establishing effective professional learning structures, both countries were able to improve student achievement in

numeracy and literacy as measured by the OECD's Programme for International Student Achievement (PISA). This did not happen haphazardly, and there was much debate and disagreement along the way. Ultimately, time for educators to work together was increased which led to them, according to Hargreaves, Boyle, and Harris. (2014), "finding out what truly engages students, constructing real problems that stimulate their commitment and imagination, and structuring their learning so they will think critically and inquire into problems themselves" (p. 59). These plans were not whimsical or random; this is not a call for anarchy in education. Failure must be an option, but failures should not become catastrophes. "Innovation must be squared with the evidence" (p. 168). "Autonomy need not turn into chaos as long as it's balanced with a sense of disciplined collective responsibility. This comes from having a shared dream, pursuing it with determination, appointing leaders with complimentary skills that offset those of impassioned innovators, and forging a common identity that binds the whole community together" (p. 66).

The next factor for uplifting leadership is supporting collaboration and competition. Seemingly dichotomous, these two approaches can propel individuals and organizations to greatness. As suggested earlier, a comment made by a principal in the Pomona Study (Berry, Bishop, & Casar, 2019) explained, "when it starts to become peer pressure.... that's when movement happens" (p. 9). This helps to illustrate the way cooperation and competition can be used symbiotically to support growth and change if used well. Teachers who have others watching them, especially if they are there in support, automatically become more aware and more deliberate in their work. Adam Brandenburger and Barry Nalebuff coined a phrase "co-opetition" to reflect the "plus-sum" nature of cooperating through competition as opposed to the "zero-sum" nature of straight competition (Hargreaves, Boyle, & Harris, 2014, p. 76).

Hargreaves et al. also argued that “giving away your best ideas prompts you to keep inventing new ones” (p. 87) and that “[T]alent and ideas should be moved around and mobilized, not squirreled away in secret” (p. 88). Both concepts are particularly pertinent to education which has a long tradition of individuals hiding in their classrooms, rarely sharing their expertise with anyone other than their students. This limits everyone to their existing capacity rather than allowing them to grow from the capacity of the group. For leaders, it is increasingly important that “everyone takes pride and pleasure in the rising overall levels of quality, performance, and ideas that result” so that “people will gladly share their ideas and their talents, move them around, and find that they are rewarded as a result” (p. 89).

Uplifting leaders need to employ a combination of “pressure and support to achieve high performance” (Hargreaves, Boyle & Harris, 2014, p.94). Finding the balance between the two, for each individual and group, is the skilled artistry that separates many leaders. This begins by knowing your people well and having them know that you know them well and that you care about them as individuals. Trust is one of the most important commodities when leading in uncertainty; it is also very important for leaders who want people to take risks, to provide healthy debate, and collaborate with others. All participants have value, must be valued (p. 171), and must be treated with dignity and respect. Building individual and collective capacity is one way to provide motivation, which is required for any difficult work or change (Fullan, 2007). Teamwork is key, as Hargreaves, Boyle, and Harris (2014) clearly explain, “One of the most important elements of common allegiance that pulls people together is teamwork. Every successful business in the twenty-first century relies on this” (p. 103). Being part of a team, especially one that one wants to be a part of, provides personal motivation and accountability. In

order to successfully address a change mandate, leaders must consciously build high functioning learning teams (Education Commission, 2020).

How organizations define and use data is very important. There is no shortage of things to measure but the keys include, do the data matter, to whom, and what decisions do the data drive. For data to be valuable it needs to measure what is valued and be meaningful to the people using that data. This can be a challenge and Hargreaves, Boyle & Harris (2014) suggest, as do others (Fullan, 2007; Fullan & Hargreaves 2016; Halbert & Kaser, 2013), that the teams using the data should be the ones identifying what data is needed. By doing this, the people can then use their professional judgment to give the data value and meaning. The data also needs to be delivered in a timely fashion so that actions can be informed by it. The data must be useful and balanced in order to have value and should be connected to the team's core purposes.

The final factor Hargreaves, Boyle & Harris (2014) identify of "Uplifting Leaders" is the ability to sustain organizational success. They identify four key elements to consider supporting sustainable change. Having a firm foundation and staying connected to that foundation is important. One important way to do this is to have "a coherent narrative" (p. 145) that connects "goals to traditionally valued identities" (p. 148). One needs to pursue "improvement at a feasible growth rate" (P. 148) and to do this they indicate the importance of appreciating human assets and growing their capacity patiently and relentlessly (p. 174). When looking at professional learning and growth in education, Hargreaves and Fullan (2016) identified the need for "collaborative professionalism" (p. 18) which manages the tension between individual and collective development. This description aligns with calls for teacher and team efficacy in professional development internationally (Center for Teaching Quality, n.d.; Education Commission, 2020; Eckert, 2019; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Halbert &

Kaser, 2013) and provides guidance for leaders working toward sustainable reform in public education. It also aligns with Fullan's (2007) recognition that amplifying change requires professional capital which is a function of the interaction of human capital, social capital, and decisional capital (p. 44). The final area Hargreaves identifies for sustainable growth is the need to connect short-term gains to long-term goals" (Hargreaves, Boyle & Harris, 2014), a connecting of the dots where "every stitch and stroke matters in the composition of the whole (p. 175). This dovetails well with the need for meaningful and useful data as it allows leaders and teams to "connect the various pieces into one comprehensive solution or existence" (p. 175).

Conclusion

In order to lead effectively, especially in challenging times, one needs to focus on developing individual and team capacity. This is not done by protecting from ambiguity and chaos (Uhl-Bien & Marion, 2011) but by developing a culture with a growth mindset built on trust, empathy, and support. Leaders need to work with their teams to identify meaningful and inspirational goals and directions (Hargreaves, Boyle & Harris, 2014), and with the crisis at hand, those priorities will likely involve addressing inequity and supporting growth in three key areas: literacy – not just about reading the words on the page, but also comprehension, and the skill and joy of being a literate person in a knowledge society; numeracy – reasoning and problem solving as much as being good with numbers and figures; and the well-being of students – emotional intelligence, citizenship, character education, etc. (Fullan, 2007, p. 46). As the context of education has changed, team leaders must help teams and individuals to embrace opportunities to change and to innovate and the best way to do this is through collaboration (Hargreaves, Boyle & Harris, 2014) that embrace diverse networks (Halbert & Kaser, 2013). It is through such structures that leaders can tap into the powerful motivation that teams can

provide. In order to inform practice and maintain direction, meaningful, timely, and valuable data must be provided to teams so that they can use their professional expertise to interpret it intelligently to achieve goals (Hargreaves, Boyle & Harris, 2014, pp. 172-173). Finally, leaders need to make sure the reform efforts of their teams are supported and sustainable. Education is rife with failed reforms for a myriad of reasons, not least of which is leaderships failure to plan for sustainability until it is too late (p. 137).

Wiseman (2017) identified that successful leaders build capacity in those they work with in five ways: they attract and optimize talent; they require everyone's best thinking; they embrace and extend challenges rather than diminishing them; they encourage debate leading to decisions; and they instill accountability throughout their organization. It is this kind of leadership that complexity requires. Teacher learning and development are crucial for any meaningful changes in education (Berry, 2016; Education Commission, 2020; Fullan, 2007; Fullan & Hargreaves, 2016; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Sahlberg 2015), and it will be through such learning and development that education systems will adapt to the challenges facing them. It follows, however, that traditional professional development will not be enough. Networked, collaborative, contextualized, professional learning embedded in the effective professional learning practices in teachers' every day work are needed to move from professional learning to the kind of professional learning and development required to be adaptive in complex learning ecosystems and that are seen in highly successful education systems globally (Berry, 2016; Education Commission, 2020; Fullan, 2007; Fullan & Hargreaves, 2016; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Sahlberg 2015).

From this template for effective leadership, the next sections outline the reform being addressed that is predicated on the opportunity for educational reform outlined in the preceding

section on change. How can a small Community Middle School make personalized learning the foundation of pedagogical practice?

The reform – making personalized learning the foundation of pedagogical practice

The vehicle

Educators need to listen. They have an opportunity to walk in the margins of the system and engage the voices and experiences of students and their families so that educators can better meet the needs of their students if they care to. To learn from this moment, people need to be empowered to tell their stories so educators can find the best things for learning and then amplify them (Hargreaves, Boyle & Harris, 2014, p. 18). Educational leaders need to empower their teachers to think and do differently to improve the preparation of their students for the dynamic world of learners they will create (Kay & Greenhill, 2013). Educational leaders have a golden opportunity to do this if they manage it well. This spring the learning community at a community middle school worked hard to collect as much data as possible to inform their planning for this coming fall (Fussell, 2020c). They administered surveys, held open conversations, looked at student success rates, collected student samples, engaged their Parent Advisory Council, observed classes and individuals, and learned a lot. While many other elements were mentioned in this broad scanning and will be embraced, the feedback from students and parents was that they valued their exposures to various versions of personalized learning (Fussell, 2020b). Personalized education has shown positive impacts on student achievement in the short term (Pane, Steiner, Baird & Hamilton, 2015) and proponents argue that empowering students in this way will help them develop into well-rounded adults who can participate in the workforce of tomorrow (Bray & McClaskey, 2015; Patrick et al., 2016). Basham, Hall, Carter & Stahl (2016) demonstrated, “when education is personalized, it has the

potential to provide immense growth outcomes for learners with disabilities” (p. 135). Why did it take a global pandemic to bring personalized learning to the table? What is getting in the way of personalized learning for students throughout our system? How can we change this?

There are many challenges to personalized learning. According to Bingham, Pane, Steiner and Hamilton (2016), “Challenges in technology use, teacher preparation and development, and measurement” are manifest at the school level (p. 468). However, the biggest challenge to personalized learning is teacher mind-set. Although many teachers believe that providing students with choice and voice in the classroom increases their motivation, engagement, and performance, few students report having such choice and teachers struggle to find the balance between freedom and limitations in personalized learning (Netcoh, 2017). Despite this phenomenon, there is very little research that examines why this is. What follows is based on observations made over a 20 years career in public education and results from surveys of teachers, administrators, and students.

The perception of personalized learning is that it takes an inordinate amount of time which makes it hard for teachers to support it as an approach to learning. Another challenge identified by teachers is that personalized learning does not provide for content coverage. Another factor identified (Y. Zhao, personal communication, July 8, 2020) it is the tendency for teachers to want control. Supporting this notion is the conservative nature of the education profession that values control above most other measures of success as evidenced by the high value placed on “classroom management” and “office referrals” as measures of teacher competency. Historical practice and rituals also play a significant part in this. Over the years, generally, those that have been successful in the school system go on to universities which are structured in similar ways to grade-schools and then become teachers, inserting themselves into

the very same structures that created them. This is an apprenticeship of more than seventeen years in most cases. Adding to this is the students who graduate and return to tell us of how well they are doing based on the work done with them in school: those for whom the system didn't work for rarely come back and give us their feedback? The ways things have always been done become ritualized and get in the way of personalized learning (K. Hurley, personal communication, July 8, 2020). Connected to this, teachers tend not to be risk takers; therefore, even though British Columbia has a curriculum that is redesigned to provide flexibility and personalized learning, many teachers are inhibited by imagined constraints. Changing the mindsets of teachers toward personalized learning will be key in providing personalized learning for our students. Changing mindsets is challenging, but can be done (Mindsetworks, n.d.).

To contextualize this, the community middle school learning community identified many target areas for growth over the coming several years; however, with the global pandemic the “grammar of schooling” (Tyack & Cuban, 1995) was challenged. Students and teachers, overnight, were not allowed in the buildings referred to as schools. All learning needed to be supported via remote means. This was a significant shift well beyond the physical changes as many teachers used limited technology in their practice before this break. Education systems were forced to be fully remote for six weeks and then slowly began to have some of the most vulnerable students come into the buildings for limited periods of time and in limited numbers. Then, after two months teachers were directed to return to their buildings and some students were invited to return to the buildings on a part-time basis. Teachers, who are naturally resistant to change and risk-taking, were forced to completely change their practices not once, but twice in a two-month period. It is because of this context that the plan following, to change the mindsets of teachers concerning the used of personalized learning, could survive the challenges to change

discussed above. The education system learned a lot in the past three months, and one of the conditions Cohen & Mehta (2017) identified that can lead to systemic change is having demands from the larger political structure that require that change. However, change will not happen unaided, and there is considerable concern that the resilient rituals and practices of current education systems will return once their familiar structures do. This plan is to capitalize on this opportunity to help teachers develop the requisite mindsets to develop and grow personalized learning for their students by working in teams to personalize their professional learning.

The structure

Consistent with Hargreaves, Boyle, and Harris's (2014) findings that staying connected with the past is important, the plan being set out will follow a structure that is familiar to the community middle school learning community, the Spirals of Inquiry (Halbert & Kaser, 2013). This provides the four structures identified by Elmore (1996) for connecting the big ideas with the fine grain of practice: a strong and external normative structure of practice; organizational structure that intensifies and focuses intrinsic motivation; an intentional process for reproduction of success; and a structure that promotes learning of new practices and has an incentive system to support them. It also aligns with Eckert's (2019) work on collective leadership development. Eckert identified seven constructs that, if present and robust, will improve collective leadership capacity and collective leadership practice, both of which lead to improved student outcomes (p. 478). Using the Spirals of Inquiry structure, teachers will develop shared vision and strategy, shared work design, supportive social norms and working relationships, shared influence, and be oriented toward improvement (2020). The other two elements necessary – supportive administration and resources – will be provided. Inquiry is an effective learning approach for adults (Amels, Kruger, Suhre & van Veen, 2019; Stommel, 2007) and for children. Also, by

using a familiar process the school community will achieve several other goals. It prevents the learning community from falling into the trap of unsettling people unnecessarily that many change initiatives fall victim to (Cohen & Mehta, 2017; Ginsberg, 2020b; Hargreaves, 2014). It gives them ownership of the change. And it builds on a process that the teachers have had significant success with in driving their professional growth and the evolution of their school over the past four years (Fussell, 2018).

Scanning – what is going on for our learners?

The first step of the learning process is to examine the context to identify what has been going on for learners. To do this the school used many different data sources that were meaningful for their students, parents, and teachers. They had each group complete on-line surveys (Fussell, 2020c) that rendered valuable information about many things. Teachers had students complete reflections led by questions about their learning experiences. Teachers kept daily logs documenting student contact and there were many discussions about student engagement. In teacher teams, as an entire staff, and with parents they had discussions about what was going on for the students, how they knew that, and why it mattered. This information helped them to understand what the experience of remote learning was like for their students. It also helped them understand what remote learning was like for the families. It is very important that as one scans, they are collecting data that they can engage with and that is meaningful (Hargreaves, Boyle & Harris, 2014). In the fall, if the school is using remote learning, they will also be using design charettes (Reich & Mehta, 2020a) with students and with multiple stakeholders as a way to deepen the scanning process.

Several themes emerged from this work. Equity was a significant and complex factor. Unclear communication impacted families and student success. Overuse of technology and the

use of multiple platforms had negative implications for student success. Homelife was a factor. There was a myriad of issues, factors, and impacts that they learned through this process and they will work to address many of them. However, when doing this work one needs to focus on their locus of control and maximize the positive impact they can have. It is easy to get caught up in factors beyond one's control and thus diminish the effectiveness of one's work.

Focusing – where are we going to place our attention?

This is, arguably, the toughest part of this process because it forces one to make very tough decisions. As mentioned above, there were many things learned from scanning that the staff wanted to address. Some of them would be easy and some more complex. The easy ones are the ones educators tend to gravitate to first, especially if they are things they can control. However, the more complex ones require much more skillful work. From a leadership standpoint, this can be one of the more challenging parts of this process. When the data are clear, for example low reading rates, then the call to action tends to be simple: “we must find ways to improve student reading.” However, when the data points in many different directions, all of them important, how does one help the group set the direction?

In this case, many things showed up in the scan. The approach was to try to identify those things they had the most control over that would make the biggest difference. Through discussions, observations, and use of research they wanted to find ways to address some significant themes. As much as possible, they used the equityxdesign framework (Hill, Molitor & Ortiz, 2020) to guide their thinking. Almost 50% of the students, at the end of June, were identified as not being engaged in their learning and many of them had not been engaged for three months. Very few students or parents saw value in what they were being asked to do. Parents were overwhelmed by the expectations placed on them at home with respect to

supporting the learning of their children. Teachers felt helpless in terms of controlling the learning, behaviour, and engagement of their students. It must be noted at this point, none of these were new things and are well-known symptoms of education systems (Wehmeyer & Zhao, 2020); however, it was not until teachers experienced remote and hybrid learning environments this spring that these realizations motivated them to action rather than discussion. The traditional structures that give systemic control, were removed. These were the areas that needed attention if learning was going to be in a remote or hybrid model of instruction again this fall. But how does one do that?

Developing a hunch – what is leading to this situation? How are we contributing to it?

The following were pertinent pieces of data that helped inform the next steps.

- Students and parents appreciated the flexibility of pacing.
- Students and parents appreciated the flexibility of projects and work that met student interests.
- Students suffered from lack of motivation.
- Students liked to learn things that engaged them.
- Students appreciated choice in terms of assignments and demonstrating their learning.
- Different students and families have very diverse needs, so learning program (what and how) needs to be flexible and personalized.
- Priorities are literacy, numeracy, health (physical and mental), Core Competencies, and the foundation for future learning.
- Cross-curricular projects, activities were valued.
- Staff appreciated the increase in meaningful collaboration.
- Relationships are crucial for success.
- One of the biggest challenges has been trying to do too much, especially things that do not achieve clear goals.
- To be successful, one needs to be flexible and adaptive.
- There is significant support for a hybrid model of instruction. (Fussell, 2020c)

The educators in this learning community recognized that they should co-create meaningful learning experiences with their students and families. They needed to shift their focus from directing learning to guiding student growth; they needed to think bigger. The trunk

of the tree can be the curriculum, but the branches are all the places students can take that curriculum. Educators should be encouraging their students to do things that matter. Learning needs to be driven by purpose and the best way to do this is to make the learning real, with real problems and messy solutions. Every child wants to be an agent of their own learning, so teachers need to figure out how to support them to do that (Wehmeyer & Zhao, 2020). One of the ways this can be done is by helping them to ask meaningful questions that guide their learning. Another way to support this development is to connect them with each other, locally and globally, to learn through collegial and diverse relationships. Students need to be able to self-organize to manage life, and agency is very important, but students need support to do this. As they approach adolescence their first level of support becomes their peers; therefore, teachers should mindfully find ways to connect them in meaningful work with their peers.

Assessment needs to change from marks and grades for “finished” work to feedback and trials that promote growth and learning (Fussell, 2013a). Sadly, much of the assessment done during the remote learning phase was assessment of privilege not of learning. Those who had access to technology, conducive home spaces, and adult support were able to thrive, and the use of marks reinforced their pre-eminence at the expense of learning. One of the positive things seen during the past two months has been the increase in performance-based assessments. Where teachers have been flexible, they have been rewarded with their students sending in videos, songs, and narratives of their learning from a myriad of curricula on a myriad of platforms. Interestingly, in most cases the demonstrated learning crosses multiple curricular targets seamlessly and students have independently learned skills to achieve this. When assessment moves away from marks, learning and value increase.

Learning – how and where will we learn more about what to do?

The next step in the attempt to shift pedagogy more toward personalized learning will be to develop individual and collective capacity to do this work. The only way to do this will be together (Fullan, 2016; Fullan & Hargreaves, 2016; Jensen, Sonnemann, Roberts-Hull & Hunter, 2016) and individually (Berry, 2016) because all teachers are at different places in their development.

This learning community has developed a structure that is designed to maximize the power of collective autonomy (Fullan & Hargreaves, 2016). Currently, they have five late career teachers (with two or more decades of experience behind them), six early career teachers (less than four years of experience), and fourteen mid-career teachers, which offers good opportunities for the three “m’s” necessary for sustainable educational change identified by Hargreaves (2005) – “mixture (of teacher age groups), mentoring (across the generations) and memory (conscious collective learning from wisdom and experience)” (p. 982). The teachers are either paired or in triads and each pair/triad is part of a larger “grade team”. Each teacher team has 150 minutes of preparation time per week together and is communally responsible for the learning progress of the children in their homerooms. All staff meetings are completely focused on professional development. They have money set aside for teachers to collaborate and to observe each other teach. At the end of the summer there are three days that this staff has committed to use for professional development driven by what they learned from their experiences and scanning of this past spring. Their approach to professional development over the past aligns with Fullan and Hargreaves (2016) description of “professional learning and development” (p. 3ff.) and the drive toward “individual and collective development” (p. 18ff.). They are all involved with their professional learning and development through persistent action, reflective feedback, and

continuous improvement. Because of their structures and the culture of their school, teachers systematically collaborate to improve the learning experiences and achievement of all students.

Another factor that provides fertile ground for this initiative is their commitment to improving their inclusive practices. This learning community applied for and were selected as part of an inclusive school pilot initiative by SET BC (Special Education Technology British Columbia) and through that work they identified areas of practice to work on. One of the primary areas identified for attention through their work was student engagement. This forced them to look at their practices with a mind to figuring out how to engage their students and, not surprisingly, a lot of the answers pointed to personalizing learning throughout. This past fall they significantly increased their professional learning and development in understanding and using Universal Design for Learning (Meyer, Rose & Gordon, 2014) principles and tools.

Each teacher in this school will be part of several networked teams, each structured as an inquiry project, and this will provide a structure that allows for collaboration and competition (Hargreaves, Boyle & Harris, 2014), professional development and learning (Fullan & Hargreaves, 2016), and professional capacity building (Fullan, 2016). In addition to their teaching pair or triad, teachers will be members of grade teams what will work together to increase student engagement and motivation in order to increase equity and support the development of literacy, numeracy, and well-being (Fullan, 2007). The school goal(s) will be established collaboratively to support the work being done by the smaller teams, and all three team structures will use the Spirals of Inquiry (Halbert & Kaser, 2013) as their operating framework. In addition to this, each teacher will be encouraged to join two other networks, one that spans schools in their district and one that spans districts and jurisdictions. These networks should be organic, but teachers will be cautioned to find networks with diversity rather than echo

chambers for their own thinking. It is through these structures that teacher learning and development will be supported, and our actions guided.

Taking action – what will we do differently?

At this point, determining exactly what specific things will be done differently is disingenuous to the process; however, there are some general changes expected. Currently, the teachers have their curriculum with their assignments, and they expect students to participate in the learning defined by the teachers. Parents rarely play an active role in this process. Having personalized learning as the foundation of pedagogical practice will look very different. Parents will be engaged in the child's learning journey and will understand their trials and successes. Students will understand the work they are doing and why it is valuable and important to them. Students will find challenge in their work and will be energized by it. Students will have choice and will see how those choices impact their learning. Learning will be linked to meaningful activities and students will be part of learning communities that emphasize their curiosity and experiences (Wehmeyer & Zhao, 2020).

From a leadership standpoint there are several things that need to be changed. Leaders will work more closely with their teams as active participants. This will serve many purposes and will help provide the balance of pushing and pulling that Hargreaves, Boyle, and Harris (2014) indicate is important. Effective leadership consciously and deliberately builds the leadership capacity in individuals and in teams. Achieving the professional capacity Fullan (2016) references is a shared responsibility; however, it is the leader's responsibility to provide the resources required for this to happen. Leaders need to provide time, money, intellectual resources, contacts, and structures as indicated as necessary by the learning teams. It is important to do this systemically to support the reforms expected (Cohen & Mehta, 2017).

Checking – have we made a big enough difference?

Hargreaves, Boyle, and Harris (2014) are very clear about the importance of having measures that are meaningful for those using the data; therefore, each team is going to have to decide what data they will collect to inform their direction and progress. However, this is not an area of strength for most educators and leaders have a responsibility to assist in the defining of valuable data. Fullan (2007, p. 60) indicates the importance of internal accountability being linked to external accountability and quotes Kantor (2004) when talking about the power of tools of accountability that empower teachers. Therefore, the data collected needs to be meaningful to those using the data. Measures of student engagement that transcend participation rates will be important. The school already has survey data from this spring that shows a desire for students and parents to have more personalized learning; collecting similar data throughout the coming year will be helpful for teachers to see where their efforts have been successful and to use that information to assess areas for improvement.

Halbert & Kaser (2013) use three guiding questions that will be useful here:

1. What is going on for our learners?
2. How do we know?
3. Why does this matter?

To use these questions as a means of assessing the differences being made to the learning experience of students is a powerful tool that has meaning for the student, teacher, and those working with the teachers. Using some descriptions of what personalized learning looks like as a baseline, teacher teams will receive useful information; however, to get there they must get beyond the traditional measures of participation and achievement. Using Wehmeyer and Zhao's (2020) description of ownership and self-determined learning, these questions might be a good guide: Can students teach themselves? How good are the students at setting and achieving goals and making plans? Are students participating in learning communities linked to their curiosity

and experiences? How well do students explain the activities they are doing for the attainment of goals they value based on their preferences, interests and values? How well do they use assessments and feedback to improve their learning? Do they feel they are provided choice opportunities, supporting volition, and emphasizing the goal process and not just goal outcomes? Another example could be taken from the 4 Shifts Protocol (McLeod & Graber, 2018) which provides nine simple questions that could serve as a good indicator of the level of personalized learning a student experiences. The nice thing about this survey is that it could provide a measure comparing teacher and student perception. Using design charettes (Reich & Mehta, 2020a) in the fall and again in the spring could also provide valuable feedback to teachers about how well they are doing to meet the learning needs of their students.

The feedback received in this phase of the inquiry process will inform the scanning process for the next round of inquiry as the spiral continues and growth increases.

Analyzing the reform

Tyack & Cuban (1995) identify three key criteria for the success of a reform: fidelity of implementation, meeting pre-set goals; and sustainability over time. Cohen & Mehta (2017) used similar measures of success in their study: made significant changes in what schools did, moved quickly across schools, opened opportunities for many students, and “became institutionalized as a key feature of what we know as schooling” (p. 647). To analyze the effectiveness of this reform leaders will use a combination of these measures. The first step is to identify what the goals are.

1. To increase the engagement of our students with their learning.
2. To provide learning that is personalized to student interest and need.
3. To build teacher capacity in using personalized learning to support student development.

4. To have our learning community more closely align with the principles of modern learning.

These are specific to this learning community, so would be considered a niche or sub-system reform (p. 647); however, the template and process could transcend schools.

Fidelity of implementation is challenging to assess as it will depend at what level of the reforms one is measuring. Individually, one can survey students to assess their engagement and the proclivity of personalized learning. Another measure that can be used at this level is the asking of two basic questions: what is going on for our learners and how do we know (Halbert & Kaser, 2013)? However, these measures do not get at the heart of the reform, which is changing teacher mindsets around personalized learning, especially as evidenced by the application of contemporary learning principles. Fidelity of implementation at this level could be accessed by using one or a combination of tools available from the OECD (Dumont, Istance & Benavides, 2012), *Modern Learners* (Richardson & Dixon, 2017), Wehmeyer & Zhao (2020), McLeod & Graber's 4 Shifts Protocol (2018), or from C21 Canada (n.d.). Each of these well researched platforms provide guides for assessing the practices of teachers aligned with 21st Century Learning approaches. Though not all these metrics have rubrics, the creation of such would be a valuable exercise for the teacher teams. The key element here is having the teacher teams have and use a meaningful measure for their work (Hargreaves, Boyle & Harris, 2014) and measuring student engagement and having some measures for teacher work will be valuable for assessing the fidelity of implementation.

The metrics used to analyze the meeting of pre-set goals are the same in some cases, and a little easier. Measuring student engagement can be done a number of ways, but one of the key measures will come from a base-line piece of data that already exists: 48% of the students in

grades six through nine at this school were identified as “not engaged in their learning for a considerable amount of time this spring” for a variety of reasons. Having students reflect on their learning program, requiring specific examples of learning personalized to their interests and needs will be useful measure for the second goal. Also, having students identify what they are learning, why they are learning it, and what their next steps are, will provide a measure of personal ownership of student learning. To analyze teacher capacity using personalized learning they will use self-assessments drawn from Wehmeyer and Zhao’s (2020, pp. 90 – 93) three phases. To assess the fourth goal, which is the most significant one, there is a variety of tools available. C21 Canada (n.d.) has a well laid-out assessment metric for 21st Century Learning that aligns with British Columbia’s Redesigned Curriculum (n.d.). In their *Nature of Learning* document (Dumont, Istance & Benavides, 2012), the OECD outline and describe seven principles of learning and what they look like. These include learners being at the center of their learning through active engagement, learning being social, the need to recognize individual differences and to stretch all learners. In their white paper, *Modern Learners* (Richardson & Dixon, 2017) demonstrate the importance of having cultures where personal, self-determined learning is at the center of work; co-construction of curriculum to meet the needs and interests of the child; and emphasizing authentic application and presentations for real audiences as key to assessment. All three of these sources can provide guidance for analyzing how successfully this learning community is moving toward the principles of contemporary learning in their school. To do this, would address two of Cohen & Mehta’s (2017) measures of successful reform: made significant changes in what schools did, and opened opportunities for many students.

The third measure of successful reform from Tyack and Cuban (1995) – sustainability over time – and from Cohen and Mehta (2017) – “became institutionalized as a key feature of

what we know as schooling” (p. 647) – can only be analyzed several years from now. If, several years from now, the educators who have participated in this reform are still using personalized learning as the foundation of their pedagogy and show evidence of contemporary learning principles in their practice, then one could argue the reform was successful. In addition, several of these teachers will be at other schools at that point which should allow for Cohen and Mehta’s (2017) remaining criteria of successful reform – moved quickly across schools – to be met. Hargreaves, Boyle, and Harris (2014) identified sustainable growth as the sixth attribute of “uplifting leadership”, while Tyack and Cuban (1995), Fullan (2003) and others identify it as elusive in education. Uplifting leadership in education can exist; therefore, sustainability is crucial. If this reform has been set up for success, it will be sustainable. In the next section I analyze the likelihood of success for this reform.

Likelihood of success

Currently, students and teachers have come through a very disconcerting and challenging time; however, at the end of June, eyes were on September and ways to increase meeting student needs. That is a significant indicator of potential success. Another positive indicator of success is the eagerness of a staff to work together to achieve communal goals and to support each other individually. In a recent lecture Ginsberg (2020a) identified eleven elements that, based on research, are necessary for change to work. To assess the potential success or failure of this reform, I will use that structure as an assessment tool.

1. Training – professional development needs to be done well and is very important. To guide professional learning and development this school has implemented structures well supported by contemporary research. The teacher teams, supported with resources, will work together to learn and grow their professional capacity (Fullan, 2016) and will follow

a structure they are familiar with and have had success with in the past (Halbert & Kaser, 2013).

2. Fidelity of implementation – As Hargreaves, Boyle, and Harris (2014) indicate, and Berry (2019) has shown, having collaborative professional teams working together is a powerful way to encourage committed participation to learning and achievement. By teaming teachers with common prep time and in rooms with close physical proximity, the structures created support the collaborative learning work. Also, by teaming teachers on small and larger teams, there is an increased sharing of experiences which will encourage fidelity of implementation.
3. There is a better chance of success if needs are being met. In this case, leadership is attempting to meet many needs. Students are disengaged from their learning and need to be engaged, especially at the middle level ages. Parents are not participants in the learning of their children and need to understand the value of the work their children and teachers are doing in order to support them. Teachers have lost their traditional structures of control and are struggling to have their students participate in learning the way they are trying to deliver it. By shifting to a model of personalized learning, all three partners in learning could have their needs met.
4. Burnout – This is a serious concern as pandemic fatigue is real. At the end of June this community middle school learning community was exhausted. Most advice received indicated that teachers needed opportunities to process their experiences, which would qualify as professionally traumatic, for them to move forward healthily. Provisions were put into place to do this, but the teachers informed management in no uncertain terms, that there was no need for this. By being conscious of burnout, people are well

positioned to prevent it, and this staff has a lot of experience with empathy fatigue, so tend to be aware. Where they are more likely to see the burnout is in their drive to learn and to do more so that they can better meet the needs of our students. To protect/support them, it will be incumbent on leaders to minimize their focus and the initiatives they take on. There is a lot that leaders can do to minimize the workload expectations on teachers, and this needs to be done for this initiative to be successful.

5. Collaboration – This is a strength of this learning community and of this plan. The teachers have learned, over the years, to collaborate together and when things became challenging this spring, the teachers found ways to work together to address and solve problems. The next step in their collaborative evolution is to focus the work on tangible and meaningful goals connected to the direction of increasing and improving the use of personalized learning. This staff is not good, yet, at having the difficult conversations that push collaborations (Hargreaves, Boyle & Harris, 2014) to greatness. So that, too, could be a challenge to the success of this reform.
6. Needs to be trust in the system – do they trust where the change is coming from? In this case, the need for change is not coming from a system or person, per se, it is coming from observed short comings this fall. Almost fifty percent of the students in this school were not engaged in their learning for an extended period. Feedback on surveys and from the teachers themselves pointed to a lack of buy-in and engagement in the learning programs being offered. To the best of their ability leaders have made the push for change as transparent as possible so that this learning community can own the need for it to occur.
7. Support – There are many ways to support this work, but the most important will be time. But providing time comes in many forms. As mentioned above, this school has built a lot

of time into their timetable and structure. They have allocated resources to provide teachers with more time if they want to use it. However, one of the greatest provisions of time to be provided is maximizing the efficiency with which the time available is used. Currently, the teams do not operate with the kind of efficiency seen in other jurisdictions (Center for Teaching Quality, n.d.). Professional resources and external supports are also available. Another strategy to support the teachers is the insistence that they participate in two additional networks: one within their district, and one that transcends their district. It is through these networks that these teachers will receive a variety of positive professional support, especially if those networks are not echo chambers.

8. Leadership is important – This leaning community has been practicing collective leadership in for the past three years and this will continue. Everyone has roles to play that support the success of the entire learning community. By establishing professional learning teams that operate autonomously within the collective (Fullan & Hargreaves, 2016), the learning community will have the supports required for all.
9. Timing – Dufour, DuFour, Eaker & Many (2006) said that waiting until the right time to start a Professional Learning Community will mean that one will never exist. However, based on the strains placed on school systems by the COVID19 pandemic, I suggest the time is perfect for reform that addresses any of those strains due to the contexts identified by Cohen and Mehta (2017).
10. Clarity of the reform – This could be the most challenging index to gauge. I believe that everyone understands the need to improve how we engage our students. However, I am not as confident that they see the same value and purpose in using personalized learning as the approach to address this challenge for a variety of reasons. As Elmore (1996)

cautions, “[T]he closer an innovation gets to the core of schooling, the less likely it is that it will influence teaching and learning on a large scale” (p. 3). Personalized learning can be a nebulous term due to the ubiquity with which it is used. However, if one can clearly define what they mean and set it as a community goal early on in September, they have a very good chance of being successful.

11. Feedback – This is another area that has been used effectively so far and will continue to be important. The school plan for this fall has been built from many sources of feedback and the learning community is used to this process. Therefore, once they identify what the various measures are, the feedback will be valued and will be used. Some of the measures of feedback used will include elements from this list. For example, they will be monitoring carefully for signs of burnout, fidelity of implementation, effective use of time and collaboration. Such feedback will help leadership to be responsive and resilient in the face of the many challenges to come (Hargreaves, Boyle, & Harris, 2014).

Based on these eleven measures, this community middle school learning community is ready to increase and improve the use of personalized learning as a foundation of their pedagogy. Due to the groundwork that has happened in the past 4 years in building professional learning development capacity and the opportunity presented by the global pandemic the belief is that this learning community can avoid the kind of reforms Cuban (1984) references when he compares them to a hurricane at sea “storm-tossed waves on the ocean surface, turbulent water a fathom down, and calm on the ocean floor” (p. 237). I do not believe the ocean floor is calm, this time.

Conclusion

Twenty years ago, we entered a new millennium full of hope and promise. It also brought with it concern about the ability of our educational institutions to adequately prepare our youth for the demands of an increasingly dynamic and globalized world. When we look around ourselves, especially through the lens of our news cycles, those concerns were valid. Gandhi said, “be the change you want to see in the world” and this applies broadly. In their small way, this community middle school can be the change they want to see in education, they can use personalized learning as the foundation of their pedagogy to better prepare their students for the worlds they inhabit and that need them.

This paper began by providing some clarity about 21st Century Learning and the need for change; but quickly identified how challenging change in education can be. For more than 100 years reformers have been trying to “make learning consistently more lively, challenging, and intellectually engaging” (Cohen & Mehta, 2017, p.647), but this is only the second time we have had a global pandemic shut down our schools. Advances in research have increased our awareness of certain challenges – student engagement, diversity, equity – and have increased our understanding of learning and development. Do these factors provide conditions conducive to change in education?

Cohen and Mehta (2017) studied successful educational reforms in America from the founding of public schools to the present and found that there were five possible conditions that allowed for potential reforms – finding solutions to current problems, illuminating a need and helping teachers see that need, demands from the larger politic, provision of needed resources, or consistency with local values. With our response to the COVID19 pandemic, all five conditions are present, laying a fertile foundation for reform. Overnight, teachers were forced to un-couple

everything they knew about how education was done and learn a whole new way. One of the primary challenges that comes from this is the plethora of pressures and directions for reform. Another is the capacity for those within education to realize the right reforms when in the midst of the chaos.

Leadership is key for any successful reform effort. According to N. Clarke (2013), “The role of leadership is to facilitate and capitalize on the random interactions of aggregates and create the conditions that promote bottom-up behaviors from which human and social capital give rise to distributed intelligent activity” (p. 138). Hargreaves, Boyle, and Harris (2014) provided a useful framework for what they term “uplifting leadership” which provides for sustainable success far beyond expectations. This plan for reform aligns with this framework and builds on the models for educational evolution from highly successful education systems (Berry, 2016; Education Commission 2020; Fullan, 2007; Fullan & Hargreaves, 2016; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Sahlberg 2015). One needs to be clear, from the outset, what the goals are.

1. To increase the engagement of students with their learning.
2. To provide learning that is personalized to student interest and need.
3. To build teacher capacity in using personalized learning to support student development.
4. To have the learning community more closely align with the principles of modern learning.

These goals are designed to change teacher mindsets and practice to employ personalized learning as the foundation of their pedagogy, thus moving us closer to employing 21st Century Learning practices.

Wiseman (2017), Fullan (2016), Fullan and Hargreaves (2016), Eckert (2019), Berry (2016) and others demonstrate the value of developing teacher efficacy for student success through improved collaboration and networking. A key element of this reform is to have teachers working on multiple teams using a standardized structure for networked inquiry

(Halbert & Kaser, 2013) that puts student engagement and personalized learning at the forefront. The staff of this community middle school have used this structure for inquiry, learning, and growth for the past three years with varying degrees of success. However, it is a format they are familiar and comfortable with and is one with demonstrated effectiveness in their school, district, province and beyond if used with fidelity.

There are some challenges this reform will face. Having enough time to do everything well is a standard plight in most jobs, but especially in education. There is a significant conflict between dedicated use of teacher time between time with students and the utilization of time without students. Structurally, they are limited in the amount of “timetabled” time that can be provided for teachers; therefore, in order to get enough time to have the kind of robust learning opportunities this reform will take requires commitment to use non-scheduled time. Much like with students, the strategy here will be to make the learning personalized and valuable so that they will be motivated to engage with it.

A second challenge comes in the development of effective collaboration: many educators struggle to collaborate well, and industries have been created attempting to address this – Learning by Doing (DuFour, DuFour, Eaker, & Many, 2006), Thinking Collaborative (n.d.). These teachers are no different. They get along well and do a lot of work together; however, few of the teams collect data to inform discussions about their teaching with each other or observe each other teach with feedback. This is a growth area for this team that has a symbiotic relationship with the first challenge.

The third challenge we foresee is the plethora of pressures that will be weighing on teachers individually and collectively. Some are very tangible such as balancing work and the demands at home when managing remote or hybrid models of instruction; others are less

tangible, such as the constant unrest from consistent uncertainty. However, in this context, the pressures we anticipate are those of which resources to use, which curricula to prioritize, and making sure each child is participating. While, on the surface, these pressures seem normal, in the context of this reform they could be debilitating. Each of those examples re-entrench the “grammar of schooling” (Tyack & Cuban, 1995) that this reform is attempting to disrupt. Personalized learning goes well beyond student participation, resources, and curricula: it is a mindset that governs pedagogy and the research we have looked at indicates such reforms are vulnerable to the pressures of the familiar.

There needs to be a change the way students are educated as evidenced by their lack of engagement and the demands of the dynamic, diverse, global context they live in, will navigate, and will be directing. In addition to the research that supports it, examples of personalized learning from the response to the COVID19 pandemic provide evidence of effective implementation. The conditions for reform are set and applied research into collaborative professionalism and effective leadership provide guidance for leading complexity. This small community middle school is three years into its journey for modern learning and the next iteration is a shift to personalized learning. By using the richness of supportive tools to guide collaborative growth, and judicious use of available resources; this school community is ready to make personalized learning the foundation of its practice through this reform initiative.

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