Andrews University

School of Education

REFLECTING ON IMPLEMENTATION AND SUSTAINABILITY OF CHANGE

In Partial Fulfillment

Of the Requirements for the Leadership Program

by

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November 2009

Introduction

"I don't really think of myself as a leader." With this attitude, I began the Andrews University Leadership program. Yet my classmates and regional group members have repeatedly affirmed me. "You are always a resource person and ready to help. You are a real servant leader," (Wu, 2008, September 6). Another classmate said,

> A leader by the simplest of definitions is one who influences at least one other (follower). From the flood of affirmations I trust you now realize that you have many more followers than you imagined even in the Leadership programme, not to mention your church, workplace and professional circles. What is even more important than the number of followers and/or people served is that you are clearly (by acclamation) a servant leader - with the hallmark of humility. I have been the personal recipient of your servant leadership on several occasions since we first met in Summer 07" (Kostka, 2008, September 8)

As I studied leadership theory in the fall of 2008, I learned that my view of leadership was too narrow. Now as I have been studying the change process, this same process has occurred with my understanding of change. Change is so embedded into my work in educational technology. It is so constant and prevalent that I do not think of it as change. I think of it instead as continuous improvement. I think of it as implementation. When I read Kotter's work, the process of change seems so large and position-leadership driven that it seems that I am not involved in any change (Kotter, 1996; Kotter & Rathgeber, 2005). In fact, others have noted the lack of organizational change competency in educational technologists and a lack of educational technology understanding in classical educational leaders (Kowch, 2005). I have noticed only rare references to change literature among my educational technology peers and leaders. Clearly it is important for educational technology leaders to understand and communicate

effectively the process of educational change. My study of this subject has broadened my definition of change and empowered me with references and understanding to broach the topic of change with my colleagues.

So what is change? Fullan suggests that the "implementation of educational change involves a change in practice" (Fullan, 2007, p. 30). Implementing an innovation is multidimensional and occurs in at least three components:

> (1) the possible use of new or revised *materials* (instructional resources such as curriculum materials or technologies), (2) the possible use of new *teaching approaches* (i.e. new teaching strategies or activities), and (3) the possible alteration of *beliefs* (e.g., pedagogical assumptions and theories underlying particular new policies or programs) (Fullan, 2007, p. 30).

Fullan (2007) argues that change in practice must occur in these three dimensions to make an impact on educational outcomes. Within educational technology, this means in addition to using new technology tools, teachers must change instructional strategies and beliefs to a more constructivist mode. Without the change in instruction and beliefs, teachers may just continue their old practice with new tools.

Another definition of change explains an information computer technology innovation from initial conceptualization to development and implementation as a full process of change (Constantinides & Barrett, 2006). My work in development of websites and resources such as Collaborations Around the Planet is a change process. We add new tools, see how the users use the tools, solve the problems created, solve new issues; all through a cyclical process of change. This is yet another situation where my understanding of change has broadened.

With this broadened understanding and definition of change, I now consider several components of the change process that emerged from my reading: the wider context of educational change, the vision for change, planning and implementation,

collaboration for change, barriers and resistance, and sustainability. These components comprise my own personal synthesized change theory. Finally I will consider the change and improvement to my own implementation of change and my goals for future learning.

The Wider Context of Educational Change

One of the most important results of my study of change is a much better understanding of the wider context of educational change. I have sensed that teachers deal with much change and frustration related to the constant change. For example, last year the Michigan Department of Education moved the study of Michigan from fourth grade to third grade. We had developed many videoconference programs to support the fourth grade teachers in the study of Michigan. Real grief and pain resulted from this change. I heard the complaints from my fourth grade teachers who loved the videoconferences. It affected in a smaller way, my own lessons and plans, as we had to adjust them to meet the new curriculum changes. This is just an example of what teachers deal with. The state changes the curriculum every few years; ostensibly to improve. If a teacher wants to use educational technology in the classroom, she has to deal with constantly changing technologies: software upgrades that break her favorite lessons, websites that disappear (Clariana, 2000), new tools to apply to instructional strategies. Add on top of that the pressure of the No Child Left Behind Act (Dalton, 2006; Reyna, 2006) and the multitude of sometimes conflicting reforms pushed onto schools (Hargreaves & Goodson, 2006). Some teachers may find this quote also apt for education: “The global business world has become infected by a virus that induces a permanent need for organizational change” (Sorge & van Witteloostuijn, 2004). Understanding this big picture of change makes me more empathetic of the challenges

teachers face and more determined to integrate the change I advocate into other changes being promoted.

A pivotal article in my reading examined three decades of change and sustainability in secondary schools (Hargreaves & Goodson, 2006). Hargreaves and Goodson suggest that most educational change theory and practice "neglects the political, historical, and longitudinal aspects of change to their detriment" (p. 3). Educational change is shaped and defined by economic and demographic shifts "that produce five change forces (waves of reform, changing student demographics, teacher generations, leadership succession, and school interrelations)" (p. 3). These forces have defined three periods in the past 30 years which have made it difficult for schools to be innovative and have consistently reaffirmed traditional and conventional secondary schools. High schools are particularly impervious to change partly because of their size, complexity, and traditions. Even successful reform projects plateau after 2 years and have more impact on elementary than high school (p. 5).

This understanding of the great difficulty of change for secondary schools is important to my practice. My research and observations have found it very difficult to integrate technologies, specifically videoconferencing, at the high school level (Lim, 2009). It is unwise to blame this reluctance to change on teachers, when it is the structure of high schools that makes it difficult for them to change their practice significantly (Cuban, November 8, 2009). This fact is a caution to the latest educational technology grant my colleague and I have written for high school science teachers. An awareness of these challenges will help us understand better what we face with the implementation of new technologies in the science classrooms.

It is not surprising that older teachers tend to hope that the next wave of change will pass soon so they can keep on teaching in their preferred mode.

> "Schools are subject to influence by repeated waves of reform that define historical periods or directions that the schools, depending on their identity, either embrace or resist. These waves challenge, then in turn revert to traditional grammars of schooling defined in terms of conventional academic subjects, schedules, tracking, and assessments" (Hargreaves & Goodson, 2006, p. 15).

These teachers experience reforms as the swings of a pendulum that go back and forth, back and forth, throughout their careers. It is difficult if not impossible for them to commit to implementing the latest change unless it aligns with their "own values, interests, and identities" (Hargreaves & Goodson, 2006, p. 15). Policy makers experience cycles of change in electoral cycles; whereas teachers experience these changes over a lifetime. Almost all teachers find these contradictions and cycles annoying; the cycles weaken their commitment to change, their inventiveness, and their energy levels (Hargreaves & Goodson, 2006). It is important that I take these experiences of teachers into account when promoting the "latest" instructional strategy or educational technology tool. Finding a way to align technology tools with teachers' values and interests seems to be one key to successful implementation.

Another major change facing teachers are the changing demographics in their schools. In one school studied, the teachers initially responded to student behavior problems by reviewing the curriculum and strengthening the school community. But later when teachers were overwhelmed with school reform implementation, they mainly blamed the students and tightened the rules (Hargreaves & Goodson, 2006). Teacher overload can adversely affect beliefs about the source of solutions to school and learning challenges.

Hargreaves and Goodson (2006) suggest that another major change force is teacher generations, which are created not just by teachers' age or career stage, but also by the "generational missions of teaching and the demographic forces that shape them" (p. 24). The baby boomer generation were the numerically dominant and politically influential group in their schools through their careers. They were early forces of change and later forces of resistance to it. Early in their careers they were shaped by the social justice missions of their time period. They remember nostalgically when schools were smaller and their work consisted of freedom to innovate to give their students their best. In the early days of their teaching, students were more homogenous, came from strong families and communities, and were easier to teach. This generation of teachers attempts to slow or reverse the changes in public school that they see as threatening what they believe in and have worked to achieve.

In contrast, the newer generations coming in accept reform as a fact of life. Their life missions are less grand than the baby boomers. They are motivated by a "personal quest to make a difference in individual lives" (Hargreaves & Goodson, 2006, p. 25). The newer generations are protective of boundaries between work and their lives and are intent on their own learning and career needs. Yet while they may accept reform as part of teaching, they resent it when it "undermines their professional image and working conditions, and they dislike the surrounding culture of cynicism and embitterment among older colleagues that standardized reform has created" (Hargreaves & Goodson, 2006, p. 26). These descriptions definitely fit my own experience in education. I am not trying to change the whole system; just to make a difference in the lives of some students. Because of this attitude, I am satisfied to meet the national average of 25% of teachers using technology in the classroom. Yet understanding these differences between generations

will make it easier to interact with the baby boomer generation and understand their perspective.

Hargreaves and Goodson (2006) argue eloquently that those working with change in schools should be more historically aware and politically critical. Educational change agents should realize that the changes have persisted over time are the ones that aligned with the traditional "grammar of schooling" (p. 32). Change is not a technical, forward moving and politically neutral process. It is embedded in history, politics, and the forces of change: student demographics, waves of reform, teacher generations, leadership succession, and interrelations between schools. This history of educational change sets the stage for considering my place in the wider context as I work on the relatively smaller change of integrating educational technology in schools.

With this context established, now I will consider the components of change as synthesized from my reading of change literature.

Vision

Many change theories suggest that a vision is an important component of change (Conlon, 2000; Covey, 2008; Kotter, 1996; Kotter & Rathgeber, 2005). Others suggest that change should be informed by a moral purpose (Fullan, 2001) or a defined preferred future (Patterson, 1995). The questions that arise, though, are what should the vision be for educational technology? How should the vision be created, shaped and shared?

Conlon (2000) contrasts two visions of educational technology change: the paternalistic view with tighter regulation of schooling and initiatives that focus on preparing young people to have IT skills for the knowledge economy. The other vision he names libertarianism, an individualistic, high-technology, deschooling agenda. He shows the clear and startling shortcomings of both views, and calls teachers and technologists to

craft a more balanced vision that encompasses the need to prepare students to make a life as well as preparing students to make a living. Cuban (November 2, 2009) suggests that we should stop arguing about the definition of "good schools", which correlate to Conlon's visions, and instead accept the fact that parents and communities want choice and may vary in their preferences.

A bigger question might be why we should use technology in schools in the first place? The connection to student achievement is weak at best. So, Kerr (2005) asks, why do we still try to make it work in schools? Or, "if technology helps us work, entertains us, is increasingly tied into the parameters of our existence generally, then why not invite it into the institutions of education, the places where culture itself is both sustained and revised?" (Kerr, 2005, p. 1007). Kerr suggests that it may be that technology in education is a successful meme, a deeply rooted popular cultural idea. Using technology in education, "is a meme, a self-replicating, virus-like construct that spreads widely (via human language and agency) because it has power and is taken to be useful by those who come in contact with it" (p. 1014). When teachers and educators find something useful in their classroom, whether supported by research proving advances in student achievement or not, they share it with others. Kerr's perspective underscores the importance of creating a vision that meets the needs of the community served by the school; and that may include integrating technology in the curriculum.

For me, instead of pushing one view or another, I am in the position of supporting many schools' implementation of technology. They have differing views on their ideals and goals of ways to meet the community's needs. Instead of taking one vision over another, or even creating a new one, I try to adapt educational tools and strategies to meet the needs and goals of individual schools and educators.

The next question is, how should the vision be created and shaped? This has been an area of growth and reflection for me (See Artifact Ai). In my work, the vision usually comes from seeing a need and considering a solution. This is partly my strategic strength, where I easily jump from problem to multiple possible solutions (Rath, 2007; Rath & Conchie, 2008) In my work, my volunteer time, and the boards I serve on I tend to have visions of possibilities. These ideas and dreams are based in staying close to the needs of those we serve and trying to think of solutions. But these visions are usually mine and not collaboratively shaped. Due to some staffing changes at work, I am now more able to collaboratively shape the vision for our schools and to listen and adapt more based on the feedback and requests of our districts. On the TWICE Board, however, I continue to be one of the main people expressing a vision and creating new activities. We have not yet been able to collaboratively shape the vision. I am not sure if this is because I have been reluctant to take an official leadership position or if everyone else is just too overwhelmed with regular work to have time to dream visions for TWICE, Michigan's K12 videoconference organization. Clearly I have room for more growth in how the vision is created and shaped.

After the vision is shaped, it should be communicated, possibly in a way that disturbs the equilibrium of the organization so that the living organism (organization) can grow and change (Pascale et al., 2000). I had not thought of leaders as "disturbing", but I can see how explaining the challenges and situations face could disturb the equilibrium. Instead of just sharing the solutions that my strategic strength inspires, I can better lead by sharing the facts, experiences, and understanding of the situation that have led to my ideas and solutions. This way others can join in the thinking and brainstorming process (Rath & Conchie, 2008). I have a long ways to go in learning this skill!

Planning and Implementation

A major part of my work in planning and implementing new educational initiatives is the staff development and learning required to make the changes (See Artifacts in Section B). Fullan emphasizes deep learning (Fullan, 2005), knowledge building and coherence making (Fullan, 2001) and capacity building (Fullan, 2007). Much learning must happen to plan and implement any new innovation. Dawson and Dana (2007) suggest a learning format of inquiry for teachers to experience conceptual change which impacts their instruction. It takes continuous learning and reflection to move up the stages of the Concerns Based Adoption Model as teachers learn to integrate an innovation in their curriculum so that it changes their practice (Sweeny, 2003). Conceptual change is an important part of the change process and lays the foundation for change in action (Davidson, 2006). Learning in all its forms seems to be the best way to effect a conceptual change or change in beliefs.

In addition to deep and continuous learning, factors for successful implementation include involving all the stakeholders, meeting the technical and pedagogical needs of teachers, and taking care of student needs (Bell & Bell, 2005). Instead of focusing mainly on those directing the change, “process-based approaches” may work better for large scale implementations of information technology. The process includes the network of power and interactions among the users as they negotiate the best uses of the technology and adapt to the tool. (Constantinides & Barrett, 2006).

Successful implementation also requires “key, self-motivated individuals” that then mobilize “a network of power” (Constantinides & Barrett, 2006, p. 84). Owston calls this person the innovation champion (Owston, 2007). I researched this part of implementation in depth in my study of videoconference coordinators (Lim, 2009) and

also found the importance of the champion to drive the change and encourage and support the teachers in their use of a new educational technology tool.

Fullan (2007) cautions against several errors in planning and implementing educational change. Innovators may be too authoritarian and not willing to listen to those who are trying to implement their change. In my latest grant implementation starting in 2006, we installed 35 videoconferencing carts in elementary and middle schools across Berrien and Cass counties (See Artifacts 3a-D). While I had some definite ideas of what should be done by each school to successfully meet the self-created grant requirements, I tried hard to listen to the situations in the schools. Some had difficult problems with implementation. In some cases I changed the requirements on a school by school basis; in another case I changed a requirement for all of the sites because it was clear it was not helpful or attainable. Fullan reminds me again of the importance of listening to my schools, my videoconference coordinators, and the teachers I serve. It is critical to understand the situation of the implementers.

This leads to Fullan's (2007) second observed error in implementation: failing to take into consideration the local context and culture. I can definitely see this is an issue in one of the schools in the grant implementation just mentioned. I have heard enough to know that the local context and culture is somehow a barrier to the use of their videoconferencing cart, but I have not yet been able to hear enough of the issues to help solve the problem. In other schools I have been able to ask questions, listen, and come up with shared possible solutions, but not in this school. Clearly I need to listen more and understand what the challenges are; then create a way to collaboratively generate potential solutions.

A third error in implementation is to have a false sense of certainty (Fullan, 2007) and too much planning and not enough action. The change process is uncertain and messy. Plans are good, but must be flexible and changeable to meet the changing, chaotic situation. Effective plans are accompanied by "focus, persistence, implementation, monitoring, corrective action, and humility" (p. 121). The change in plans comes as the educators implementing the change engage in reflection to make the change their own and to derive meaning from it. While I definitely love planning, I also like to listen to the educators I serve and adjust and adapt plans based on their needs and feedback. This is an area that I need to continue to polish and emphasize.

Collaboration: Working with People

Implementation of change is never a one-man show! It takes many people to implement any new change. In my workplace, the implementation of videoconferencing in our schools involves principals, technology coordinators, videoconference coordinators, and teachers. I collaborate with the technology coordinators to ensure that videoconferencing works on their network and through their firewall. I work with principals to select, train, and support the videoconference coordinator in their school. I support, train, and learn with the videoconference coordinators in each school. I listen to their concerns and together we brainstorm solutions that will work in their context. All of this requires building and facilitating relationships (Fullan, 2001, 2005, 2007, 2008). In addition, these relationships may include some conflict. Innovation is a continuous process. Conflict is an important part of innovation and change. It is essential to think about "innovations in educational technology through the lens of politics" (Whitworth, 2005, p. 690). The core of this is to openly care about the educators I serve (Fullan,

2001), to encourage them, and to interact appropriately with those who resist as addressed in the next section.

Resistance and Barriers

Fullan (2007) recommends that innovators not expect all or even most people to change. Progress happens as we try to increase the number of people included in the change. It is acceptable to aim for a percentage of willing implementers, and then to slowly work at convincing the others. My goal has been to have each of my schools use videoconferencing at least five times a year; a very small goal considering the schools where every teacher uses it three to six times a year. Still I realize that it takes time to overcome barriers and resistance to change. Barriers and resistance come in many forms.

One of the main complaints I hear from teachers on implementing a new technology is the time required. Porter (2005) suggests that we should be flexible with time and give people time to implementation technology based innovations. We shouldn't worry about how long it takes to achieve. We also should not make slow adopters face consequences because they are thinking.

Slow adopters and resisters should be respected (Hargreaves & Fullan, 1998). Their voices should not be silenced (Fullan, 2007). They usually have good reasons for their resistance. While opponents to change may resort to issue definition/redefinition, deligitimation, demobilization, deinstitutionalization, and disinformation (Durant, 2007), it is still important to hear their side. Resisters may see challenges or holes in an implementation plan; if invited to the conversation they may assist in solving the problems. A recommended strategy for working with baby boomer teachers is to engage "with the strengths of teachers' generational missions rather than treating them with administrative disdain as only negative sources of resistance among a degenerating

teaching force" (Hargreaves & Goodson, 2006, p. 35). Some other strategies for working with resisters include addressing the attitudes towards change. These attitudes towards change are influenced by social influences, evaluative beliefs, emotions, the content of the change, the participation in the change, and their values towards the change. The conclusion is that within change management, the leader should focus on the need for change, the vision, and early wins (Lines, 2005). It may also be that the resisters cannot see how the new innovation or educational technology fits with their beliefs about teaching and their required curriculum. This barrier must be overcome; teachers need to see a reasonable impact on learning before they are willing to adopt a new technology (Ertmer, 1999).

Another barrier to change is diminishing innovative energy. "Factors such as leadership succession, shifts in district focus, and the maturing lives and careers of teaching staff seem to lead to an attrition of innovative energy over time" (Hargreaves & Goodson, 2006, p. 6). This attrition of energy may explain why my research found that schools with more experienced videoconference coordinators were using videoconferencing less (Lim, 2009). Fullan (2005) recommends a recognition of energy levels with a focus on cyclical energizing; planning for rest, reflection and recovery for long term sustainability.

Frenetic change and intensified work can be another barrier to effective change.

> Overwhelmed by implementation requirements and intensified work demands in a downsized system characterized by escalating performance requirements and diminishing support, staff rooms in the project schools have become increasingly empty as teachers have snatched whatever time they can together to deal with the urgency of implementation. In this period, school leaders who move with increasing speed around the accelerating carousel of leadership succession are regarded as behaving more like managers than leaders and as being more attached to the district and their own career prospects within it, rather than to the future of their school (Hargreaves & Goodson, 2006, pp. 30-31).

Disjointed, overlapping reform agendas can cause distress and resistance among staff. While I do not control the reform agenda of any of the schools I serve; I can try to integrate and adapt my own implementation efforts to what is happening in my schools.

Change and Sustainability

At first glance, implementing change seems to a one-time endeavor. We implement a grant; implement new technology tools, and then move on to the next implementation. Yet, this approach to change causes fatigue quickly. I would rather focus on sustainability and how the innovation can be continued and expanded. If the innovation is worth doing; surely it is worth sustaining over the long term. I am lucky that I have been able to focus on videoconferencing and it's application to the curriculum for ten years. In that long time (long in educational technology time), the program has grown and expanded (See Artifacts C & D).

So what is sustainability? Sustainability "'meets the needs of the present without compromising the ability of future generations to meet their own needs.' The key principles of sustainable improvement appear to be that sustainable improvement focuses on what matters, that makes improvement last and spread, and that achieves its ends without doing harm to others around it" (Hargreaves & Goodson, 2006, p. 35). This is the change that I aim for: change that lasts and spreads and does no harm to others. So how do I work towards this sustainability? Two references have influenced my thinking on sustainability:

Owston (2007) recently published an international study on the contextual factors that sustain innovative instructional technology uses. These factors were drawn from a grounded-theory qualitative analysis of 174 cases in 28 countries. His model includes essential conditions for the sustainability of classroom innovation which are necessary

and found in all of the cases. The essential conditions include the role of the teacher, teacher professional development, the principal as gatekeeper of the innovation, and the enthusiasm of the students. He also found contributing conditions which were included in at least 50% or more of the cases. Two of the contributing conditions are support for the innovation within the school and external to the school. A third contributing condition is that of an innovation champion – a teacher, technology coordinator, or principal who provides direction and leadership to the innovation. Finally funding is a contributing condition, as well as supportive plans and policies for the innovation. Figure 1 shows how my work in videoconferencing corresponds to the components of Owston's model.

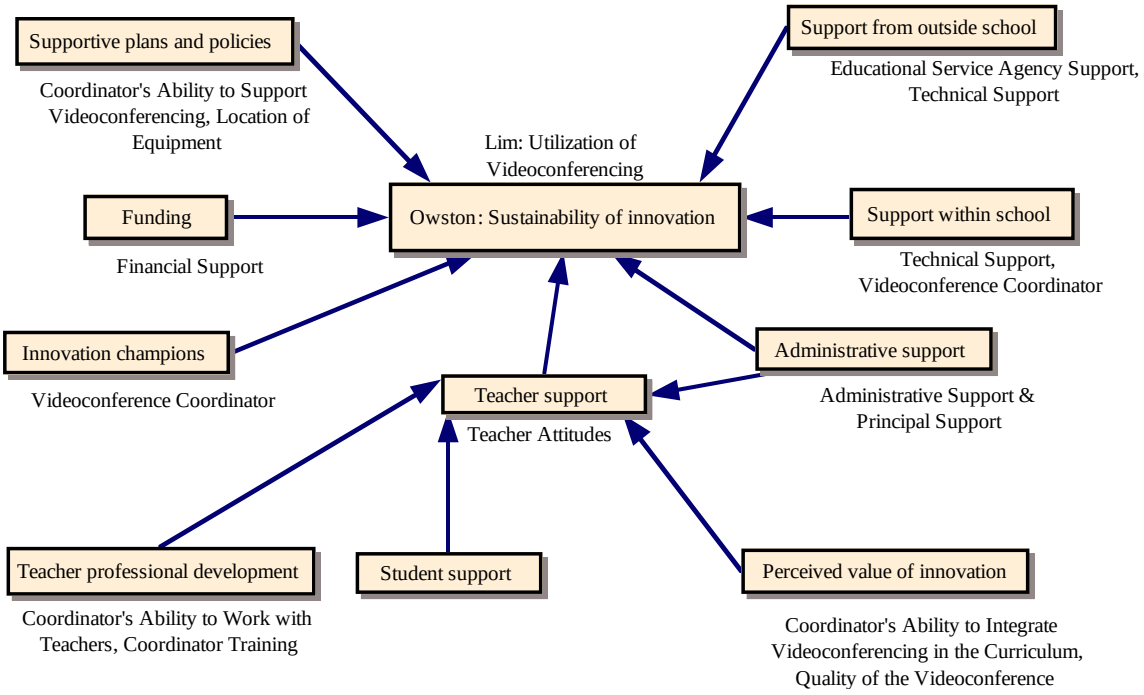

Figure 1. Sustainability of technology innovations

Figure 2. Sustainability of technology innovations

As I continue to improve my implementation of change and focus on new innovations, Owston's model is an important framework to guide my work. I work with my schools

and districts to make sure that each component of Owston's framework is included in our implementations.

Fullan (2005) has also written about sustainability. He describes a reform program in the United Kingdom where results hit a plateau after a few years of success. Fullan suggests that sustainability has eight elements: (1) public service with a moral purpose, (2) commitment to changing context at all levels, (3) lateral capacity building through networks, (4) intelligent accountability and vertical relationships, (5) deep learning, (6) dual commitment to short-term and long-term results, (7) cyclical energizing, and (8) the long lever of leadership. While some of these areas seem out of reach because I do not directly influence all levels or the whole system, the framework provides a guide for considering my work and making sure that continuous learning and growth is happening for videoconferencing in my service area.

Improving My Practice

I have already mentioned how my learning has affected my understanding of the context of change; which affects my interaction and understanding with my schools. New practice includes working towards a more collaborative development of visions and plans (See Artifact A). Improving my practice means paying attention to the implementation and using data transparently for improvements and corrections (Fullan, 2008). Using data that helps make connections between practice and results allows me to assess my progress in achieving important personal and organizational goals. Understanding the major components of change helps me realize where I am already deeply involved in change. From the frameworks and change theories reviewed, I can reflect on my practice and continually improve. My reading has given me a foundation for continuous sustainable improvement of my practice. As I have time to address my schools where

videoconferencing is not as successful, I will use what I have learned to collaboratively problem solve the issues so that all of my schools can be successful.

Another major change in my practice is really in my understanding. My "Pollyanna" optimism and enthusiasm has been somewhat doused by the wider reality of the challenges of systematic change. I sense the challenges my schools face: being pulled in two extreme conflicting directions: one for standardized tests and accountability and the other for innovative methods such as technology integration, UDL, differentiated instruction and other constructivist student centered methods. The two don't mesh. So what do teachers do? Try to ignore it all and survive.

If creative innovations are not sustainable and they will not survive the passage of time (Hargreaves & Goodson, 2006), then is my work pointless? How does my work in educational technology fit into the larger picture of educational change? It was easier before my reading to just have the vision and make it happen; now I see the apparent impossibility of the task of change.

After reaching "bottom" with these questions and concerns, I am affirmed by the perspective of my generation of teachers in dealing with change. We are on a personal quest to make a difference in the lives of individual students (Hargreaves & Goodson, 2006). While my projects and programs may not survive the cycles of educational change, certainly I can make a difference by connecting a student in rural Dowagiac to students in London England to talk about carbon emissions (See Artifacts 2c Section C). Each year my programs impact at least 50,000 students, counting Read Around the Planet (See Artifacts 3a Section C).

In addition, understanding the broader context of educational change makes me less frustrated with the resistance. I am more understanding, gracious, and patient with

the teachers who are so overloaded that they cannot do their usual videoconference this year, or with those who have yet to try using videoconferencing in their curriculum.

But I cannot just give up my work, because clearly teachers are signing up for our videoconference programs and are incredibly grateful for the opportunities. I recently received an email from a new teacher to videoconferencing, who signed up for an author interview. She thanked me saying it was “more than you can know”! I certainly will continue to be motivated by making a different in the lives of individual teachers and students. I just now have a broader understanding and empathy for what is happening in our schools.

Future Learning

Yet again, I come to the end of a reflection paper feeling like I’ve just scratched the surface of the topic. I want to read more of Fullan’s work on change. I want to understand how other people are applying Fullan’s work to their implementation projects. I am dissatisfied with the amount of articles I found connecting change theory to educational technology. I will continue to search for and read more in this area. I want to read Senge on change (Senge, 1999) to contrast his work with my preference for Fullan’s work. My appetite for learning about change has been whetted, and I will continue reading and learning, using the skills that I have acquired in the Leadership Program.

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