Reflections on Dimensions of Educational Change: Lessons from One School Using Design Thinking as a School Reform Process

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Abstract: The purpose of this paper is to share researcher reflections about a school's withdrawal from an educational change initiative that uses design thinking as a reform process. Upon reviewing audio-recorded workshop and debrief transcripts, observational field notes, and one follow-up telephone interview with a teacher-participant, the researchers generated some preliminary ideas about the school's decision to withdraw. Drawing on case study methodology to interpret this qualitative data, this paper comprises three nascent dimensions of educational change which align with extant academic discourses: direction of change, facilitation approach, and communication. We interweave researcher observations and participant perspectives to provide a snapshot of how one school using a design thinking-based reform process experienced approaching school change. Little research documents design thinking as a change process, let alone in a current reform initiative. This paper attends to this gap while also providing rare access to field experiences with design thinking in action.

Keywords: educational change, direction of change, design thinking, facilitation of change, context-driven change

Introduction

Much literature on educational reform acknowledges that top-down reforms are often unsuccessful and are better driven and supported by a mosaic of individuals who are most invested and motivated when they share autonomy and feel genuinely involved with changes (e.g., Allan & Evans, 2006; Evans & Boucher, 2015; Fullan, 2011, 1993; Hargreaves et al., 2001; Hargreaves & Shirley, 2009; Hoban, 2002; Jang et al., 2016; Leithwood, 1994; Llopis & Foss, 2016; Maxcy, 1991; Pink, 2011; Senge, 2006; Stroh, 2015). Furthermore, there is equally as much scholarship on educational reform that supports the importance of developing connections with a community, learning about them, and collaborating with them from where they already are in order to unlock the potential for successful facilitation towards change (e.g., Choudry, 2015; Farley-Ripple et al., 2018; Goldstein & Butler, 2010; Gow, 1997; Hargreaves, 2005; Lotz-Sisitka et al., 2015; Mukhopadhyay & Sriprakash, 2011; Olsen, 2009; Smith & O'Day, 1990; Tuck & Yang, 2013; Yu et al., 2002). As Hargreaves et al. (2001) describe, the value of sharing authority and collaborating across levels of reform—from the source research, models, and prototypes to the target schools, educators, and practices—not only achieves reforms that are designed for local contexts, but it also empowers practitioners:

> [T]eachers being allowed to adjust their implementation to local conditions and their own collective capacities, and being encouraged to unleash their energies and enthusiasms in curriculum development by being accorded a high degree of professional discretion… enables teachers to create a curriculum that is rigorous and relevant. (pp. 111-112)

Considering the benefits of leading school change through collaborative approaches and the drawbacks of top-down only change processes (e.g., Hargreaves et al., 2001; Hoban, 2002; Jang et al., 2016; Leithwood, 1994; Maxcy, 1991), design thinking emerges as a potential collaborative school reform process that shares control amongst local partners.

Design thinking often begins by identifying and defining a user-centered problem, then ideating solutions as prototypes and testing them with users in order to empathize further and refine prototypes (IDEO, 2014; Stanford d. school, n.d.). It is built on the idea of dispersed authority, with expert facilitators but no expert knowledge-holders (Liedtka et al., 2017). This is meant to ensure the meaningful inclusion of diverse partners in change processes.

Since effectively collaborating with teachers and dispersing authority may encourage buy-in and reform sustainability (Barth, 2001; Birky et al., 2006; Benavot, 2011; Bond, 1995; Danielson, 2006; Fullan, 1990; Gouëdard et al., 2020; Miles, 1986; Urick & Bowers, 2014; Useem et al., 1997) it is worth examining if design thinking as a framework for change achieves this. Indeed, design thinking, if genuinely facilitated and communicated clearly, is a

strong approach for encouraging the dispersal of authority amongst school change participants (Hubbard & Datnow, 2020), leaving reform models open for idiosyncrasy, nuance, and personalization.

Using an example from a current school change initiative that employs design thinking as a reform process, we highlight three dimensions of educational change that potentially influenced this school's rejection of the proposed reform: top-down change (e.g., Allan & Evans, 2006; Fullan, 1993; Hargreaves & Shirley, 2009; Pink, 2011; Stroh, 2015), external facilitation (Farley-Ripple et al., 2018; Hargreaves, 2005; Lotz-Sisitka et al., 2015; Munroe et al., 2013; Tuck & Yang, 2013) and the framing and communication about the initiative (Dhillon, 2017; Fullan, 2011; Gallagher & Thordarson, 2018; Rubinstein & McCarthy, 2014; Senge, 2006).

The New Design Initiative and Fairview High

New Design (ND) (pseudonym) is an initiative established with the objective of facilitating context-based reform, grounded in research on 21st century learning through the process of design thinking (Stanford d. school, n.d.). Expert facilitators leading the ND initiative were from a provincial non-profit educational organization whose mandate is to support local educational initiatives.

Fairview High (FH) (pseudonym) is a mid-sized secondary school in a rural area of Central Canada that serves mainly low-income families. It was one of several schools in its province to pilot the ND educational reform initiative. Staff from FH attended various informational and professional development sessions for ND before their school's principal elected to pilot the initiative. The pilot group at FH, comprised of 27 educators and administrators from the school, were expected to collaboratively develop ideas and test reform prototypes–such as cross-curricular initiatives or school timetabling–that would make sense for their particular context and generate reform ownership. The pilot phase was comprised of a series of eight design thinking-based workshops offered by external facilitators over the course of one year. After just one of ND's workshops, FH withdrew from the initiative completely. The following sections detail our preliminary ideas about the circumstances that potentially led to FH's withdrawal.

Methodology

This paper is informed by case study methodology (Yin, 2017). We center the experiences and perspectives of people who are involved in the research (Smith, 2005): in this case, the ND participants at FH. Participating educators were observed at a single design workshop. The authors of this paper observed this workshop and a debrief session with the principal, vice-principal and two external facilitators, taking observational field notes based on pre-established protocols and audio recording the sessions. In addition, one month after FH's withdrawal, we held a 90-minute open-ended interview over the telephone with a teacher-participant, Sam (pseudonym), to substantiate our initial findings. Sam has worked at FH for over two decades and has often been involved with initiatives and committees at the district and Ministerial levels. Throughout various ND meetings and in the first design workshop, Sam emerged as a leader and spokesperson.

We bring our observations into dialogue with educational change literature and with the comments and observations of the facilitators, administrators, and teachers involved. As such, this study "depends on the experiential resources of informants, on [our] own experience[s], [and] on experiences doing observational work in a field setting" (Smith, 2005, p. 125). Working with the ideas expressed by the participants provides "a rich source of understanding…inserting knowledges that ruptures those subjects to the monologies of institutional discourse and ideology" (p. 124). Guided by the question "What can we learn from design thinking as a school reform process?" we ground our initial insights in the experiences of the people directly involved in an educational change initiative.

Preliminary Findings and Discussion

Using our observational field notes and workshop, debrief and interview transcripts, we substantiate emerging findings about three potentially significant and interrelated dimensions of educational change related to FH's withdrawal from the initiative: (1) The top-down nature of the reform; (2) The inclusion of an external facilitation team; and (3) How the initiative was framed and communicated to staff. In the following sections, each dimension of educational change

is explored using data from our observational field notes, the workshop debrief, and the interview with Sam. It is then followed by our reflections on lessons to be learnt about design thinking as related to each dimension.

Top-Down Change

Despite talk about design thinking's potential to disperse authority and build buy-in amongst participants, many teachers felt like they had no authority in the process. On several occasions throughout the workshop, facilitators verbally affirmed that the teachers were driving the process. One facilitator said, "you guys are going to be doing most of the work," and "you're the experts, you're in the classrooms, that's why you are here today, right?" This did not convince teachers that they had control over the process and serves as a reminder of how much more powerful the actions of a facilitator or leader are than their words.

In a debriefing conversation between the school's administrators and the ND facilitators, it became clear that the principal and their administration team were aware of the potential value of avoiding a top-down only approach and dispersing authority among teachers involved. It was also clear, however, that they were not willing to cede control without ensuring they had some power to manage their staff's organization and authority. The principal emphasized to the facilitators that their staff do not respond well "if they feel we're talking down to them if we're belittling them." Later, when explaining confusion related to setting workshop dates, the principal admitted that they "didn't check [their] source, you know, like *I* booked [several] meetings. And I tried to avoid pissing them off while I'm booking…but I didn't check my source, I didn't have time to meet with them to say what would be the best thing…I thought I knew best." The principal's comment highlights a disconnect between their own awareness of the value of sharing control with their teachers and the way they acted in engaging and collaborating.

The principal also proposed a strategy for dealing with teacher resistance that attempted to give the appearance of shared control while maintaining a top-down structure. When discussing how to split up teachers who were the most vocal, the principal suggested that the facilitators orchestrate "a way to come in with different coloured little post-its and pass them around just to make sure that our strong heads don't have all the same colours." The principal then stated that this "cannot look like manipulation." This covertly manipulative spirit suggests that the principal was unwilling to give over the degree of authority required for design thinking which may have been necessary to quell resistance and support meaningful and sustainable reform.

From Sam's perspective, as well as other local actors', the principal and administration team at FH operated unilaterally and from the top-down at various points throughout their involvement in ND. According to Sam, the principal and the administration team made all the decisions, without consulting teachers, about whether or not to be involved with ND. The principal decided to be an official pilot school, and Sam and other colleagues felt they were "voluntold" to be involved (i.e., volunteered unwillingly). The decision to withdraw from the initiative was equally abrupt; the administration had once again acted unilaterally without having a team meeting. Sam felt that the principal's perspective and agenda took priority over the teachers' and drove the initiative in a top-down structure.

Design Thinking Lesson 1: Attention to Power Dynamics. Design thinking as a process intentionally aims to equalize the distribution of power in decision-making across all stakeholders. The administration's comments and Sam's experience, however, run explicitly counter to this design thinking ethos. Indeed, institutionalized top-down practices in schools can maintain power despite the intentions of this process. Being aware of and framing a reform as dispersing authority does not sufficiently achieve collaborative control if this framing is superficial or disingenuous and leaders maintain top-down authority over how involvement is orchestrated. This does not mean that design thinking is not a viable process for school reform. It does suggest that attention to unpacking reified organizational attitudes, beliefs, and practices require more attention. Understanding the extent of institutionalized power dynamics at FH may have better supported this school's capacity to participate in ND. This, however, takes time, resources, and capacity on behalf of all participants (in this case, teachers, administration, and external facilitators) to collaboratively work towards a foundation of equitable power dispersal.

External Facilitation

The facilitators' lack of preparedness for the local context was clear to us as observers from the start. There were several participants in the workshop at FH who audibly expressed that they were uncomfortable with the external facilitators' lack of understanding or knowledge about the school. For example, after one of the facilitators asked, "if

everyone [was] sitting with people they don't know," there was laughter because "we all know each other," as one teacher explained. That the facilitation team had not gotten to know the school or staff was further evidenced through our observation of their failure to adapt presentation materials to the school and their informative rather than active workshop. Participants publicly voiced their displeasure with these aspects of the workshop multiple times throughout the session.

The principal also felt that the facilitators did not establish connections with and learn about the school community with whom they were expecting to engage, saying during the debrief session: "they're a strong bunch…they're working dogs. I mean, they're crazy. Some of them are here 'til like six, seven at night. So it's not like because they can't do it because they can…they're gung-ho, they've made things happen over the years, they're movers." The vice principal shared that the teachers "were shocked that you didn't know that we're all a small community and they all know each other." This lack of knowledge about the context was not entirely the facilitators' doing since the facilitators were unable to contact the administration to have the conversations necessary to prepare for the workshop. Indeed, one of the facilitators said that they were not prepared precisely because when they reached out to the principal before the workshop, they had only heard back at the very last minute and therefore had been unable to adapt in time.

Sam's experience echoed that the facilitator's lack of contextual knowledge was especially problematic because the tight-knit staff at FH felt that they already had a culture of innovative practices, teacher leadership, and collaborative change-making that was not acknowledged. According to Sam, the team of teachers was a particularly driven and committed group, often going beyond the call of duty, they're "...a self-driven bunch. They're people that go after their PD [professional development] development [sic] on their own." That such a committed and involved staff did not buy into the initiative and its ostensibly collaborative change process made Sam question whether this might have worked better if the teachers themselves had been the ones facilitating the changes in their school.

Design Thinking Lesson 2: Empathy-Building. Design thinking can ensure that what facilitators bring to the school is authentically explored by designers. Farley-Ripple et al. (2018) point to the way that any resources an external facilitator shares—like models or the ideas established in research reports—are not value-free "but rather [are] interpreted differently by different stakeholders in different contexts" (p. 236). The design thinking process actively encourages different stakeholders in different contexts to carefully interpret research into practice in ways that suit their local contexts, staff and student communities. This requires empathy-building—often cited as the first step of a design cycle (Gallagher & Thordarson, 2018; IDEO, 2014; Stanford d. school, n.d.). If the facilitators had started by empathizing with teachers and building from their local expertise, it would have reflected the principles of design thinking (Liedtka et al., 2017), and it may have motivated their involvement more productively. As the principal and vice-principal commented, respectively, "it needs to come from within…or else they won't buy in." Considering the experience at FH, it seems that this first step was missing or superficially attended to. Importantly, empathy-building is not just for teachers, facilitators—as people with a role in a group engaging in design thinking—are not exempt from this step. Future change agents using design thinking as a reform process may want to spend more time attending to this critical first stage.

Framing and Communication

From our observations, participants were not provided with the support necessary to aid their initiation into design thinking. For example, a facilitator told a teacher, "that's just the way the process is ...you've bought into the process or not type thing." The message the facilitator was sending with this comment was that teachers had to be committed in an all-or-nothing kind of way, implying that the teachers did not have the authority to control the nature or degree of their involvement. Furthermore, the facilitators' lack of clarity about teacher involvement in the design thinking process suggests their own failure to understand the process.

Another fracture in communication regarding how the initiative was communicated to participants was the inclusion of some key features of the initiative, shared by facilitators and included in the literature from the organization behind ND. These features were determined to be 'essential' or 'vital.' These fixed components of ND made it necessary for facilitators to tailor the design thinking process in particular ways, regardless of the staff with whom they were working, thereby removing some of the capacity for the promised open and locally-determined structure of design thinking.

Further confusion resulted from how design thinking was framed as an active process for participants. Sam explained that their understanding of design thinking was that it would be "all about get up and do, not sit and listen." Sam explained that before the workshop, staff thought that they were going to design their own school of the future "in our own way, in our own school, to fit our own culture." When it came to the workshop, however, Sam said they felt that the external facilitators were "presenting" about design thinking instead of "facilitating" it.

The principal suggested that the facilitators should have started the workshop with conversations or activities instead of presenting content; "the first hour should have been 'what are you looking to change.' And [teachers] didn't see it like that. They interpreted it like, what am I doing wrong, what do I need to change. And that wasn't that." The vice principal added that teachers "still think that you're gonna tell them how to do this and that's not, they don't get that part." The facilitator conceded that "it's gonna be a top-down, imposed" process, acknowledging a disconnect between the intended openness by which design thinking is meant to roll out and the way it seemed to be top-down and prescriptive at the school in question. This made it clear that more work was needed to carefully communicate and model the design thinking reform process to teachers.

Design Thinking Lesson 3: Clear Communication. The ND process was supposed to build on what was already working at the school. However, what was projected—that the facilitators had not learned about the school community and that teachers were not being listened to, understood, or given authority over the situation—led to teachers getting defensive. It was also not what they were led to believe design thinking was about. This misunderstanding about design thinking arose partially from the way the external facilitators orchestrated the first design workshop and partially from the maintenance of a top-down power structure. This points to the importance of how reform initiatives are framed and the value of open and ongoing communication amongst collaborators throughout the process (e.g., Baldwin, 2006; Bryk & Schneider, 2003; Dhillon, 2017; Evans, 1996; Fullan, 2011; Gallagher & Thordarson, 2018; Mintrop, 2012; Rubinstein & McCarthy, 2014; Senge, 2006; Waugh & Punch, 1987; Young, 2009).

Conclusion

Dimensions of change that impede or support reform adoption, such as the direction of change (top-down and bottom-up), facilitation approach, and communication, are widely documented in the literature. In this paper, we have presented our emerging findings about these three dimensions in the context of a reform movement that employs design thinking as a change process and suggest that overlooking these dimensions may influence reform withdrawal. Design thinking as a framework for change is not enough to engage teachers as partners and avoid a top-down-only power structure. For design thinking to be truly capable of dispersing authority, it is not enough just to frame it as such; it must be experienced as authentically collaborative. Like at FH, if a principal or administration team acts as gatekeepers, retaining hierarchical structures, a barrier to the shared control that can help motivate reform can emerge. The teaching staff at FH expressed resistance to ND because of the misrepresentation or misunderstanding of design thinking's commitment to dispersal of authority as communicated by both administrators and external facilitators. Although a deeper commitment to learning about the school community and to the shared control promised by design thinking was lacking, a more careful and clear framing of the initiative could have also helped mitigate some of the teachers' resistance. If external facilitation is part of reform, facilitators will be best served by learning about the school community with whom they will be working and tailoring the reform design in ways that align with the school's strengths. An effective approach relies on facilitators working with local partners to center their understandings of their school and to build on what is already working well; design thinking as a reform process may be capable of doing so.

That the group of educators at FH resisted the ND initiative—in the way they experienced it—could be seen as an ironic testament to their ability and drive to make educational change in their school community. These teachers clashed with the external facilitators' attempt at design thinking and with their administration's top-down only leadership demonstrating a tenacious commitment to their school. Given support—resources and time to meet and plan with shared control—this staff has ample potential to reform their school in innovative and locally suitable ways.

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