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A Dramatic Confrontation of Frames: Arts-Integration Teacher Development, Organizational Learning, and School Change

Ross C. Anderson [a,b], Lorna Porter[b], and Deb Adkins[b]

[a]Policy, Research, and Evaluation, Inflexion, Eugene, OR, USA; [b]Department of Educational Methodology, Policy, and Leadership, University of Oregon, Eugene, OR, USA

ABSTRACT

This study explores the intersection of arts-integration teacher development and organizational learning in schools. Four frames rooted in organizational learning theory—structural, political, symbolic, and human resource—consider the roles of organizational culture, leadership, and structure in school change efforts. Analyses explored variation across teachers (N = 21) at five U.S. middle schools. Results evaluated (a) perceptions of the arts-integration reform, (b) the role of frames in generative organizational learning, (c) comparison of salience and emphasis of frames across cases, and (d) confrontation of frames to enhance organizational learning or detract from the uptake and sustainability of change efforts.

Among the challenges facing education in the United States, two converge at the intersection of arts integration, a practice that integrates teaching and learning in the arts across school subjects and instruction (Burnaford, Brown, Doherty, & McLaughlin, 2007). First, evidence from the past decade suggests that access to arts education in schools nationwide has decreased (Government Accountability Office [GAO], 2009). Even though state arts-education requirements have remained relatively stable, funding levels have steadily decreased (GAO, 2009). Due to the curriculum narrowing that results from high-stakes accountability (Berliner, 2011) and the limited resources of schools serving historically marginalized students (Orfield, 2014), access to the arts in public schools often depends on socioeconomic factors. Second, policies focused on school change seek to develop teacher practices for immediate improvements in academic achievement, yet rarely establish the conditions for sustainability (Meyers & Smylie, 2017; Wohlstetter & Smith, 2000). That shortcoming often results from limited organizational capacity (Noblit, Corbett, Wilson, & McKinney, 2009), lack of coherence of the reform approach to specific contexts (Fullan & Quinn, 2015), and underutilized human capital in teacher leadership (Castner, Schneider, & Henderson, 2017).

In response to the challenges of ensuring access to arts learning and producing sustained results in school change, arts integration has become a viable approach (Burnaford et al., 2007), with models multiplying over the past two decades (e.g., Noblit et al., 2009; Stoelinga, Silk, Reddy, & Rahman, 2015). Though recent studies on arts-integration school reform approaches demonstrate promise for affecting student outcomes (e.g., Corbett, Wilson, & Morse, 2002; Peppler, Powell, Thompson, & Catterall, 2014; Robinson, 2013; Stoelinga et al., 2015), only one study to date (Noblit et al., 2009) evaluated the long-term sustainability of arts integration for teacher development and school change. Few other studies have addressed the experience of teachers to understand teacher's creative leadership as a potential mechanism to sustain arts integration in schools (e.g., Lackey & Huxhold, 2016). This current study aims to add new understanding to the field of arts-integration school change policies, practices, and processes through a lens of organizational learning (Bolman & Deal, 2013).

CONTACT Ross C. Anderson ross.anderson@inflexion.org Inflexion 1700 Millrace, Eugene, OR 97405
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Incorporating teacher attitudes and perceptions within five unique school contexts, this study focuses on the factors that influence teacher outlook on the arts-integration school change process.

Organizational (not individual) learning

Conceptually, it is important to distinguish between organizational learning—the development of coherent organizational culture toward growth—and the professional development of individuals within the organization. Sustainable change in education systems relies heavily on the ability of schools to act as learning organizations, engaging adaptively in nonlinear growth patterns (Fullan & Quinn, 2015). The organizational environment may affect individual engagement with school change (Maurer & Tarulli, 1994; Noe & Wilk, 1993); yet, too often, school change research focuses on individual learning, exclusively. From a social learning perspective (Bandura, 1986), organizational research must integrate the growth of the individual with the growth of the organization.

Often, teachers engage with school change efforts through an infusion of resources in the form of professional development or curricular materials that aim to disrupt existing practices (Meyers & Smylie, 2017). In arts-integration programs, some of this professional development may be embedded through one-on-one collaboration with a community-based teaching artist or integration specialist, who guides the integration of learning in the arts into other core content areas (Rabkin, Reynolds, Hedberg, & Shelby, 2011). Recent research suggests why this embedded approach may support teacher skill development and ownership to implement new practices. In Dunst, Trivette, and Hamby's (2010) meta-analysis of the effects of adult learning methods, the practices with greatest effect sizes included reflection, self-assessment, and real-life application and role-playing—elements of quality arts-integration training (Anderson & Pitts, 2017).

Research shows that change in individual behavior is a process involving ongoing support, modeling, monitoring, and feedback (Cuban, 1990; Guskey, 1986; Hall & Hord, 2014). Information presented in a single sitting, typical of the in-service model, is often forgotten or not applied, and the excitement for new information wears off without interactive opportunities and assisted implementation (Cuban, 1990; Hall & Hord, 2014). In the case of the study at hand, the initiative focused on arts-integration practices that aimed to customize to the needs, interests, and assets of the school, building on teachers' potential to be "pedagogical artists" (Castner et al., 2017, p. 339). After decades of development, arts integration remains a locally designed approach with few prescribed practices but helpful design principles (Burnaford et al., 2007).

Due to its adaptable nature, effective arts integration requires teachers to be flexible in order to allow the positive effects of student-centered inquiry and creativity to emerge (Burnaford et al., 2007). Rather than providing "teacher-proof curricula and prescribed teaching techniques" (Bolman & Deal, 2013, p. 150), arts integration aims to foster autonomy for teachers to go off script and redesign the way they work. This approach counters the exertion of technical control over curriculum that often occurs in the *de-skilling* process of formulaic, step-by-step curriculum (Apple, 1982). An embedded training approach that develops individual teachers into collaborative designers contrasts with the majority of professional development that treats teachers simply as implementers of instructional procedures (Joyce & Showers, 2002). Therefore, high-quality arts-integration training may facilitate democratic, curriculum-based teacher leadership, liberating teaching and learning from "mechanical thinking" to become deliberative and transformative (Castner et al., 2017, p. 337; Noblit et al., 2009).

Organizational learning theory (Bolman & Deal, 2013) and adult training research (Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012) suggests that even with carefully embedded training, the uptake of new practices within a new student-centered paradigm demanded by arts integration may depend on earnest investment in human capital (Bolman & Deal, 2013). Perception of organizational support for the creative work of teaching influences motivation to learn and experiment with new practices and may dictate the pedagogical shifts that teachers are willing to make (Maurer & Tarulli, 1994; Noe & Wilk, 1993). For instance, recent findings related to this current

study found that growth in teachers' perceptions and practices related more to organizational culture development than to teachers' quantity of training (Anonymous, 2017).

By investing in the creative resources of teachers, a flexible arts-integration approach builds on the motivational levers suggested by theories related to organizational theory (e.g., Herzberg, 1966; Pink, 2011) and the personal and organizational factors that influence teachers' commitment to student learning (Dannetta, 2002). And yet, access to the creative resources of educators depends on the culture of the learning organization (Anderson & Pitts, 2017). A supportive and collaborative culture can foster positive organizational shifts toward improved educational practices (Datnow, 2011). The politics of decision-making and power may dictate this culture (Bolman & Deal, 2013) and determine the keys needed to unlock the creative resources of educators. Framing this study through organizational learning allows for the examination of how the growth of individuals within a school converges with growth of the organization.

Context of study

The context of this study is familiar to school improvement policy, where a hierarchical structure for decision making determines the school change initiatives enacted by teachers (Zuckerman, Wilcox, Durand, Lawson, & Schiller, 2018). In the case of the project covered in this study, a partnership formed out of political affiliations based on a need for additional support to improve the performance of underfunded schools serving historically marginalized students. A successful grant proposal was designed at a regional level with little input from the educators in the schools that were expected to participate (Anderson & Pitts, 2017). District leaders consulted teachers in only two of the five schools. Once awarded, grant-funded initiatives, like the one researched in this study, need to leverage interest and buy-in from the teachers and schools tasked with implementation in an overcrowded menu of initiatives. As Lackey and Huxhold (2016) found, an arts-integration initiative may need to align quickly with the interests and desires of the educators responsible for delivering on the expectations at the classroom level. Drawing on scarce resources of educator and administrator human capital—time, attention, and energy—without alignment, such an initiative can face lackluster interest, resentment, and even sabotage. In this context, the experience of educators may be a crucial indicator of the initiative's overall impact.

Theoretical orientation

In this study, we synthesize two key theoretical organizational learning frameworks to inform the research design and interpretation of findings; we apply systems-level thinking and levers of change in education systems (Senge, 2006) and the four frames of organizational learning developed by Bolman and Deal (2013). These four frames of organizational learning—*structural, political, symbolic*, and *human resource*—within a systems-level thinking perspective help to guide this study toward more clarity about the interdependent processes of teacher development and school change that shape success or stagnation.

Systems-level thinking

A learning organization is one that continually expands its capacity; yet, learning to adapt is necessary but not sufficient. To sustain effective practices, an organization must engage in generative learning—"learning that enhances our capacity to create" (Senge, 2006, p. 14). The process of generative learning incorporates an organization's shared vision, mental models, team learning, distributed leadership, and personal mastery, all built on the cornerstone of assumed complexity in the system. In this study, these elements guided the analysis of how arts-integration school change may promote generative and even transformative learning for teachers to address persistent challenges to teaching and learning in middle school.

Change as a process of learning

This study examined how an arts-integration reform effort confronted, complemented, and shaped organizational culture, based on the experience of teachers as learners and designers. The four frames of organizational learning, described below, consider organizational change as a collective learning process that implicates the culture and structures of a school.

Structural frame and the challenge of collaboration

The structural framework focuses on formalized roles and responsibilities and systems designed to achieve an established set of goals and objectives for the organization. Clear differentiation of teacher, staff, and administrative responsibilities within vertical structures of decision-making power often result in professionals focusing acutely on their individual roles (Senge, 2006). The shifting responsibilities and identities that stakeholders undergo as part of arts integration may challenge traditionally defined roles and responsibilities. Moreover, arts-integration innovations may encounter rigid structures (e.g., bell schedule) and generate conflict when the adaptive and fluid nature of the innovation meets restrictive and limiting features (Giles & Hargreaves, 2006). Arts integration challenges the disciplinary divide between the arts and other content areas, encouraging teachers to expand their responsibilities beyond simply the content they teach to include the way students use that content to inform how they see and create in the world. Structural mandates from federal and state levels (e.g., standards or testing), though, can hinder such transformation and limit the flexibility needed to coordinate reform efforts (Marks & Louis, 1999) or maintain innovation into the future (Giles & Hargreaves, 2006).

Political frame and who gets to decide

Schools are built upon coalitions operating with different values, beliefs, and interests, where resource allocation depends on advancement of individual or coalition interests (Bolman & Deal, 2013; Senge, 2006). In arts-integration reform, this framing implicates the distribution of decision-making power, prioritization of interests in operational processes, and initial decisions of implementation, from curriculum design to evaluation. Often, political battles arise when those with most decision-making power assume that the "…right idea (as perceived by the idea's champions) and legitimate authority ensure success" (Bolman & Deal, 2013, p. 231). Top-down initiatives get implemented by those closest to students but furthest from decision making. Investigations into the efficacy of those types of reforms reveal pushback and resistance from educators on the ground (e.g., street-level bureaucrats; Lipsky, 1971), especially when the right drivers of change are not in place (Zuckerman et al., 2018). Exclusion from the decision-making process has been found to affect teacher commitment to the overall organization and initiatives within the school (Dannetta, 2002). The political frame suggests that external threats from high-stakes accountability, such as school restructuring (Diamond & Spillane, 2004; Lackey & Huxhold, 2016), may limit teachers' creative risks to improve practice and compromise their development into pedagogical artists.

Human resource frame and the uncertainty of freedom

Organizations thrive on the ideas and talent of individuals, and the vitality of that creativity and productivity depends on the support and health of the organization and how the organization nurtures the motivation and real leadership development of its contributors (Bolman & Deal, 2013; Castner et al., 2017). Multiple theories of motivation (e.g., Herzberg, Mausner, & Snyderman, 1959; Maslow, 1943) within an organizational context provide a perspective on factors within the organization that either inhibit or propel those drives into creative productivity. Organizations can invest in employees' skill development, but they also need to empower those individuals through autonomy to redesign the work environment and find meaning in their work (Bolman & Deal, 2013). Arts-integration training and school change can provide opportunities for teachers to feel a new sense of achievement and advancement of skill and creative potential

(Anderson & Pitts, 2017)—stimulants to a positive motivational orientation (Bolman & Deal, 2013). And yet, these motivators may be undercut by *poor hygiene*—as Herzberg et al. (1959) termed it—in the organization's culture when mutual respect, relational trust, and leadership are weak. Zuckerman et al. (2018) found that trusting relationships and collective guided learning were two key drivers to the success of innovation implementation. If autonomy is a cultural norm in an organization, small self-managing teams, such as professional learning communities, can support organizational health and the motivation of its contributors (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006).

Symbolic frame, the arts, and isomorphism

Members of an organization employ the symbolic frame both consciously and unconsciously to make sense of their world and give meaning to work (Bolman & Deal, 2013, p. 244). Symbols take many forms across schools and districts, ranging from a publicly displayed mission statement and mascot to the schoolwide goals for test scores. As these symbols shape organizational culture, reform efforts can face the daunting task of disrupting the power of established symbols that represent and uphold current beliefs about teaching and learning (Lackey & Huxhold, 2016). The symbolic frame can shed light on how an organization gathers around a common purpose and the rituals that uphold the organizational culture. Arts-integration school change, for instance, may challenge the normative isomorphism that dictates the isolation of content area teaching (Bolman & Deal, 2013). Traditional isolation of disciplines in middle and high school may simplify job expectations and anchor educator identity (Lackey & Huxhold, 2016). This sense of security may be especially salient in the face of uncertainty and powerlessness from year to year for many educators who receive continuous signals that they are failing. Combined with the often highly personal definition of what makes art, the typical singularity of content-specific curriculum may present a powerful barrier for educators' receptivity to transdisciplinary arts integration.

Confrontation of frames

To make sense of implementation and sustainability of arts integration, professional development, and school change, a multiplicity of organizational learning frames is most appropriate. For instance, as a result of not meeting achievement expectations, the curriculum in schools deemed chronically underperforming based on accountability metrics will naturally become tightly regimented and narrowed (Berliner, 2011; Darling-Hammond, L, 2010). In these cases, the structural framing of external expectations and the political framing of mandated requirements and penalties poses a stark contrast to human-resource framing that supports risk taking, innovation, and development of teachers as pedagogical artists. In turn, the tighter control exerted over decisions about what is taught and when and how may become a comfortable routinized expectation for some educators. The opportunity to break from the mold and integrate science content with theater, for instance, may feel like too much of a risk, creating a heightened state of discomfort, vulnerability, and uncertainty, eroding motivation. Educators working within disempowered learning organizations may resist such an opportunity before embracing it.

This study will use Bolman and Deal's four frames to understand that confrontation and interaction more thoroughly. We analyze teachers' initial engagement with the opportunity to design arts-integration solutions to teaching and learning challenges in five diverse middle school cases serving students furthest from opportunity in the region. The study will use these frames to describe the personal and organizational factors that exert pressure on educators through the following research questions:

(1) What perceptions do individual teachers carry about the arts-integration school change program and their own growth?
(2) What are the most salient personal and organizational factors to pursuing this opportunity and how do those factors relate to organizational learning frames?
(3) How do the salience and emphases of the frames differ between school cases?
(4) How do the frames relate to and influence one another in this context?

Method

We conducted this qualitative study of middle-level educator experiences as part of an ongoing mixed-methods study exploring the implementation of a four-year model development and research initiative using arts integrated teaching and learning innovations and school change approaches. From an interpretive phenomenological perspective (Porter & Cohen, 2013), we aimed to describe the lived experiences and perspectives of teachers participating in the study through distinct but interacting frames of organizational learning.

Researcher reflexivity

All three researchers were trained primarily in quantitative research methodology in a positivist tradition in the education field, but each researcher maintains a pluralistic approach to understanding the phenomenon of educational policy implementation and change processes in schools. A positivist lens prioritizes internal and external validity and generalizability of research methods and findings for the purpose of assessment and evaluation (Anderson, Guerreiro, & Smith, 2016); however, the three researchers conducting this study were also trained in qualitative, phenomenological methodology that acknowledges the importance of individual lived experience to understand the nature and context of teaching and learning in schools. We view quantitative and qualitative approaches as complementary to understanding teachers' experiences of education policy and practice and generalizing those experiences to improving design or implementation of policy. None of the researchers had professional teacher training or classroom teaching experience. That lack of experience meant that our analytic approach was not influenced by personal experiences in the classroom; however, this lack of experience also meant a limited understanding of the teacher experience. During research design and analysis, we acknowledged the role these ontological, epistemological, and experiential lenses played in our reflexivity to the data with the aim of producing objective and thorough analyses.

Participants and setting

The sample included teachers from participating middle schools in the Pacific Northwest, who committed to a full year of collaboration. Interviews were conducted with teachers (N = 21) representing all five schools in the sample, who mostly taught Grade 6. Seven teachers were male and the remaining teachers were female. Due to some participating teachers entering into the program late due to job transfer or scheduling conflicts for professional development, teacher involvement in the initiative ranged from 6–18 months of participation. Teachers represented numerous primary content areas including mathematics, social studies, science, and English language arts. Teachers consented to voluntary participation in the study. Table 1 of results includes descriptive characteristics of each school.

As a study on organizational learning, we considered each school a case, with 4–6 teachers representing each case. Four of the five cases represented large, comprehensive middle schools serving a majority of historically underserved or marginalized students in Grades 6–8. The fifth school was an independent, alternative charter school that served students in Grades 7–12—students who had struggled in traditional middle and high schools in the region. The arts-integration program included 40 hours of in-service professional development for each teacher (> 90% attended all trainings), as well as more than 60 hours of embedded training, modeling, and collaborative planning and teaching with a long-term arts-integration specialist. This training experience focused on designing and implementing at least one eight-week unit integrating themes, knowledge, and skills from the teachers' primary content area with different skills and processes in art disciplines, including music, theater, and visual arts. In addition to teacher training, the program worked on school-wide strategies with school administrators (e.g., adoption of frameworks, school-wide training, student exhibitions, etc.).

Table 1. Guiding questions to situate excerpts linked to teacher attitudinal dispositions and organizational perceptions within organizational frames.

Frame	Guiding Questions
Structural	• Does the excerpt relate to a technical or structural aspect of the school experience or involvement in the project (i.e., schedule, communication, integration specialist)? • Does the excerpt relate to hierarchy or chain of authority? • Is the excerpt about self-management?
Political	• Is the excerpt about resource allocation or decision-making? • Are conflict and scarce resources significant? • Is the excerpt about bottom-up innovation or top-down mandates?
Human Resource	• Is the excerpt about individual commitment, motivation, or capacity? • Is the excerpt about personal need (i.e., mastery, purpose, recognition, belonging, trust)?
Symbolic	• Is the excerpt about student success, needs, and interests? • Is the excerpt about culture and values, shared or individual? • Is the excerpt about ritual (e.g., improvement plans) or expected roles and relationships (i.e., isomorphism)?

Data collection

A team of researchers used a semi-structured interview protocol to collect data in late spring 2016. These interviews lasted 40–60 minutes and aimed to account for experiences from (a) the pilot phase in the prior year, (b) a summer training phase, and (c) a full school year of implementation (18 months total). As such, the purpose of this study included evaluating the teacher experience in the initiative, identifying opportunities for improvement and additional support, and learning about the interaction between the initiative and the schools as learning organizations. The semi-structured interview protocol aimed to capture the overall experience of teachers in relation to the arts-integration program, with questions that focused on (a) overall experience in the initiative, (b) teachers' perspectives on their own creative teaching, (c) perceived challenges and promise of arts integration for students, and (d) the barriers and supports to their sustained engagement and innovation.

Analytic plan

We analyzed transcripts in multiple phases using Dedoose software (Dedoose Version 7.0.23, 2016). First, we used four deductive codes to draw out salient perspectives related to the multi-frame approach. These broad codes included (a) negative attitudinal orientation (e.g., annoyed, uncertain, frustrated, skeptical, confused, and deficit-framed), (b) positive attitudinal orientation (e.g., grateful, trusting, enthusiastic, empowered, curious, and asset-framed), (c) organizational supports (e.g., administrator involvement, clear expectations, freedom, time to collaborate, and resources), and (d) organizational barriers (e.g., lack of support, time, communication, or structure, and unspecified roles and high-stakes testing). To arrive at a clear understanding of those four codes across three researchers, each researcher first coded three common transcripts. After that initial coding exercise, we inductively generated a list of descriptive indicators for each of the four codes, detailed in Table 2, based on what emerged from the data and how those descriptors may or may not align to each frame. For instance, where negative attitudinal orientation reflected frustration over high-stakes testing in some subjects, both the political and symbolic frames appeared to be most at play. Then, we went through one of the transcripts discussing areas of agreement and disagreement, thoroughly.

After the stage of sense-making and clarification, two of the researchers coded two more transcripts to ensure acceptable agreement of 80% or better for these broad codes (Mays & Pope, 1995). Upon reaching adequate agreement (i.e., 83%), the two researchers split up coding by case to complete the thematic coding phase. Both researchers coded one complete school case together during the inter-coder agreement stage and then coded all transcripts from two cases separately to cover all five cases. For the within-case (i.e., by school) analysis stage, these two researchers then

Table 2. Descriptive indicators of thematic codes.

Thematic Code	Descriptive Indicators
Positive attitudinal orientation	Grateful; enthusiastic; insight and openness; empowered and confident; visionary; growth mindset about artistic or creative abilities; acceptable discomfort to stretch out-of-comfort zone; hopeful or optimistic; high appreciation for arts learning
Negative attitudinal orientation	Deficit-framed thinking; irritated or annoyed; frustrated; confused; fixed mindset about artistic or creative abilities; unacceptable discomfort; close-minded; cynical; insulted; intolerance for ambiguity or uncertainty; low appreciation for arts learning
Organizational support	Involvement and ownership of school principals; clear expectations; freedom and autonomy; future enhancements; expertise; time to collaborate; ready-made projects/plans; instructional videos; community partners and visitors; money for materials; feedback given and received; adequate physical space; modeling of practices; homeroom resources or advisory time; shared mental models and language; visible engagement and success of students
Organizational barrier	A lack of support, communication, structure, time, materials, funding, leadership buy-in, or desired features in program; unspecified roles; strict curricular scope and sequence; unexpected issues; pressure from teacher evaluation; pressure from high stakes testing; poor alignment across initiatives; perceived or experienced disengaged and disruptive student behaviors; low shared investment or support from colleagues

swapped the cases that they coded in the previous stage, which allowed any potential coding issues or disagreements to be transparent and addressed during generative analysis. The third researcher conducted the within-case analysis, described below, of the fifth school, which all three researchers had coded early on.

After situating the data into the negative and positive valence across the two themes illustrated above—attitudinal and organizational—researchers grouped these thematic categories further within each of the four frames of organizational learning previously discussed (Bolman & Deal, 2013). Table 3 describes the guiding questions that researchers used to situate the thematic categories within each frame. Once grouped, we used within-case (i.e., by school) analysis to understand how each frame influenced the experience at each school and how themes interacted, noting patterns and trends, making contrasts and comparisons, and clustering occurrences across individuals within a school case to gauge salience and areas of emphasis within that case (Miles, Huberman & Saldaña, 2014). This initial phase used a within-case approach (Miles et al., 2014) and generated extensive memos to capture the researcher's self-reflexivity and interpretations, supporting a transparent and coordinated analytic approach across researchers. After this step, each researcher wrote findings from the within-case analysis in preparation for cross-case analysis. Once we analyzed the data for each school case through the four frames, cross-case analysis determined how salience and areas of emphasis showed coherence or variation across cases. We categorized each case across a five by four matrix in Table 1; this step helped to identify links between frames.

We rated each case as low or high salience or negative valence for each frame based on emphases within the four coding themes. Rather than use a frequency count to determine this emphasis as some past qualitative studies have done (e.g., Thier, Smith, Pitts, & Anderson, 2016), we based our analysis on both quality and frequency, providing rich excerpts from the data for illustrative purposes. Finally, from this synthesis across attitudinal and organizational themes analyzed through organizational learning frames, we used a convergent process with multiple researchers (see Anderson, Guerreiro, & Smith, 2016) to construct a descriptive theory about how the four frames of organizational learning function and interact in both contradictory and complementary ways (Miles et al., 2014).

Findings

Across sites, a varied set of experiences revealed a number of important findings regarding (a) teacher perceptions of the arts-integration reform, (b) the role of each frame in the process of generative organizational learning, (c) how the salience and emphases of the frames differed between

Table 3. Characteristics of case-study schools and cross-case frame salience and valence.

Characteristics	School A	School B	School C	School D	School E
Grades served	6–8	7–12	6–8	6–8	6–8
Enrollment	553	77	262	271	273
Teachers interviewed	5	3	4	5	4
Percent low-income	85%	71%	54%	68%	76%
Structural frame: salience and valence	High **Positive**: Small, targeted PD **Negative**: Multi-site PD; resource accessibility	Medium **Negative**: Student turnover; resource accessibility	Medium **Positive**: SHOM **Negative**: Subject area pressures	Medium **Positive**: Collaboration time; small PD **Negative**: Scheduling	Medium **Positive**: Design team; PD. **Negative**: Subject area pressures; scheduling; resources
Political frame: salience and valence	High **Negative**: Decision-making roles; forced participation; sense of powerlessness	Low **Positive**: Common interests; empowerment	Low **Negative**: Competing interests; external pressure from observations	High **Negative**: Competing interests; leadership turnover	Medium **Positive**: Empowerment **Negative**: Scarcity; testing pressures
Human resource frame: salience and valence	High **Positive**: Integration specialist; individual motivation; student engagement	High **Positive**: Individual motivation; personal growth; student engagement; freedom; feedback; challenge	High **Positive**: Teamwork; collaborative problem-solving; student engagement	High **Positive**: Achievement; growth mindset; collaboration; student engagement	High **Positive**: Individual motivation; student engagement; teamwork; integration specialist
Symbolic frame: salience and valence	Low **Positive**: Student engagement **Negative**: Competing mental models; lack of coherence across initiatives	High **Positive**: Creativity; student engagement; teacher identity; SHOM	High **Positive**: Student engagement and voice; teacher identity	High **Positive**: Creativity; student engagement; shared mental models; growth; celebration	High **Positive**: SHOM; mental models; the arts; identities; celebration

Note. SHOM refers to the Studio Habits of Mind, PD refers to professional development. Salience and valence were determined based on frequency and quality of the code across each set of school interviews.

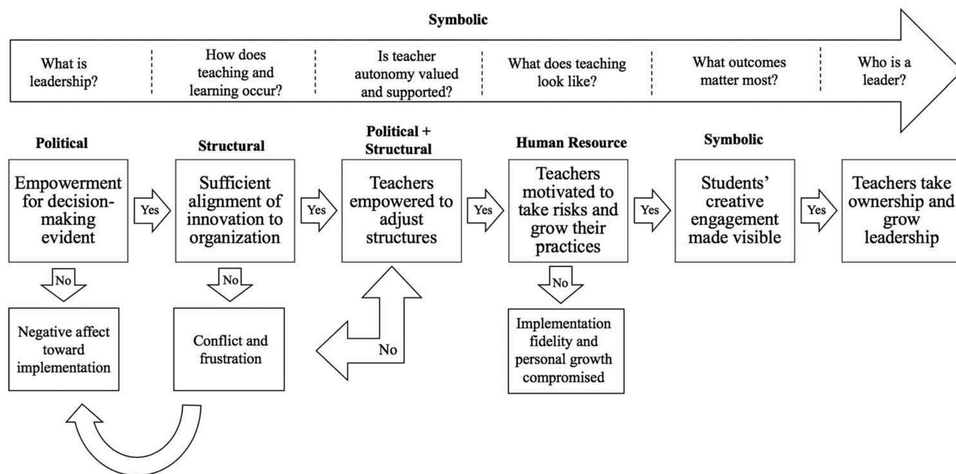

Figure 1. The interaction of organizational learning frames experienced by teachers in reform within an empowerment model for practice.

school contexts, and (d) how organizational frames confronted one another, either contributing to enhanced organizational learning, or detracting from the uptake and sustainability of the arts-integration reform effort. Overall, a positive perception of the message and intent of the arts-integration reform program balanced with constructive critique of programmatic features and the structures and supports integral to the potential of schools as learning organizations. Though consistently salient, the structural frame showed both positive and negative valence. The political frame was met with negative valence and different areas of emphasis, but was not highly salient, in general. The human-resource frame showed high levels of coherence with positive valence across cases. The symbolic frame held high salience for all schools but one. Below, we report the findings organized within each frame—site-specific findings are synthesized in Table 1. Figure 1 illustrates how the frames interact based on the themes that emerged from the data.

The four frames

Structural—not much time to be creative

A number of structural elements emerged across sites that both supported and inhibited integration and sustainability of the arts-integration model as a teaching practice and lever for organizational learning. Overall, strong structural supports were often those designed as part of the reform model, while noted structural barriers were in place at the site prior to reform. A number of structural elements were framed both as supports and barriers, varying across sites and teachers, as well as varying in relation to either uptake or sustainability of the reform. Five structural elements emerged as key in shaping teacher perceptions and organizational growth: (a) co-teaching roles, (b) professional development sessions, (c) the Studio Habits of Mind (SHOM)[1] conceptual framework, (d) school-defined objectives for specific content areas, and (e) roles within the school.

Across sites, co-teaching as a form of active learning for teachers appeared to be a critical support. Many expressed new confidence that co-teaching and targeted planning time with the arts integration specialist provided the necessary support to extend the arts integration work beyond the defined co-teaching time period. The efficacy of this support to facilitate sustained growth, though, was seen by many to hinge on finding balance between overreliance on the integration specialist (explored in more depth within a human-resource frame) and having tangible supports beyond the co-teaching and coaching timeline. One teacher expressed,

> If [the integration specialist is] here all the time, then we lean on you to do it all and then you're the crutch and we never walk on our own. If you're not here, did we build in strong enough fundamentals and framework that we can carry it on our own? This is why consumables; I don't want them because I want the framework to do that. I know that I'm looking at my lessons differently because of working with [the arts integration reform], and it doesn't force me to do new lessons, it makes me want to do new lessons to get my kids more engaged.

Exemplified in this last quotation, procedural structures, such as design and implementation frameworks, are seen to help sustain efforts after the resource of collaboration has been consumed. There were a few select teachers that expressed a stronger need for ready-made, highly structured activities to continue to pursue this work. One teacher specifically repeated in multiple instances that she did not feel capable of replicating the projects and instead requested "a teacher toolbox that was really handy and easy to use and I could just implement this right now without much prep and responsibility." Based on other contextual quotes, those perceived structural barriers linked to the individual's motivation and self-efficacy.

Reflections on the professional development provided within the reform trended toward favoring smaller, more targeted sessions over larger-scale, multi-school workshops. These smaller sessions with the integration specialist were described as helpful in their provision of concrete strategies and supports:

> The most beneficial has been the time that it's been like, okay. Let's work on actual (things). Here is a unit we teach. Where can we incorporate this into it? These are our practices, where can we incorporate something new into it?

Teachers valued the structural element of formal meetings when concrete resources emerged; these meetings were more decentralized in nature, with the teachers and integration specialist working within their own targeted task force. This flexibility allowed for the teachers to focus more specifically on their own content area and individual teaching needs.

As a formal conceptual structure of shared language and learning targets, the SHOM proved to be a strong support across four sites to frame the arts integrated instruction consistently across content areas. This framework created continuity not just for teachers to transfer arts integration into their own teaching, but a structure to support student learning and engagement as they experienced integration within and outside of classrooms. One teacher illustrated how this structural element was reflected in student learning,

> [The SHOM] are life skills. We were making connections between what we were doing in the studio and then what the kids were doing outside of class….One little boy, he really is a struggling reader, he's a struggling writer, but he was really excited that he had done his personal narrative. He was like, "Miss [teacher], I engaged and persisted with my personal narrative." To hear them using that language [*engage and persist*] and making those connections, it was really meaningful for me.

The SHOM framework inculcated in the school's arts-integration studio served as a formal bridge for many teachers to connect their work with the larger school culture. One teacher expressed this aspect clearly,

> Regarding the [SHOM], I'm one that really feels like we really need to weave this throughout the entire school. I know that the sixth graders had it this year. They're going to continue in seventh grade and eighth grade as they move on up. They're going to continue working with the studio habits. I really feel like they should go through our entire school….In one of the staff meetings, I was saying that this homeroom time would be a great time to weave those studio habits through. I found them really so valuable and so powerful.

That previous quote identifies that the structure of the reform—the continual intensive work with a cohort of middle school students grade by grade—was seen as a positive. In contrast, the existing school structure was noted as a key barrier to organizational change across sites. One teacher framed most of this dimension through perceived barriers inherent in arts integration: "There are no teachers that I know of that have the money or the time to be doing those sorts of things." Others expressed concerns linked to the school organization: " I don't know where the hell [the arts] would

fit in the schedule…there's time for this linear way of looking at things…there's not as much time for kids to be really creative." One teacher shared how difficult it was to plan for meaningful creative learning in 45-minute class periods, while another noted that the structured timeline toward standardized testing dates inhibited integration efforts. In a clash of structural elements, oftentimes desired supports met strict realities of time allocation and an overwhelming scope of learning objectives. It was expressed that more planning time with the integration specialist would be a valuable asset; yet, teachers reported a lack of time in the day to focus on planning and learning and hesitancy to being pulled out for professional development sessions.

The perceived impact of school structures was found to differ for some in relation to the subject taught. Multiple teachers—notably every teacher at School E—spoke to the ease of integrating the arts into the subject areas of social studies and science. In these subject areas, high-stakes testing was less of stressor and the scope and sequence afforded much more flexibility and freedom, especially in comparison to mathematics. The perceived pressure to hold fast to the scope and sequence in mathematics in an attempt to prepare students for the test led to the decision to engage in arts integration at the end of the year, which may have defeated some of the underlying purpose and potential of the reform. As one teacher stated, "Thank God I had social studies this year because there was no test." The structural component of the standardized test regimen clearly influenced how teachers perceived their engagement with the arts-integration opportunity and their perceived level of freedom to innovate.

The analyses found that, when roles were conceptualized to be more flexible and autonomous, most teachers were able to infuse their individual roles within the organization with the creative approaches encouraged by the arts-integration model. At School B (a charter school), teachers noted that their unique context necessitated adaptation of the integration model. Structural challenges existed, grounded in inconsistent student attendance and enrollment. Rather than see those as static barriers, teachers across the case described adaptation of their individual roles, focusing on differentiating instruction and changing reform goals. One teacher reflected, "We basically had to let go of that desire for ourselves to have an outcome…to focus on just trying to connect with each student no matter where they're at." This student-centered adaptation by teachers suggests that their role within the organization allowed for classroom-level adaptive response aligned with overall school goals.

In another example of adaptation to structural challenges, teachers at School C described a collaborative process to support continued reform efforts. In the midst of a change that shifted their class periods to a block schedule (i.e., A & B days, where occurrences of classes were every other day), reducing class time from 63 to 53 minutes, teachers felt empowered to decide that students receive two periods of arts integration back-to-back every other week. Proactively, teachers helped cover one another's classes to accommodate this change.

Political—we didn't have a choice

For many sites, including Schools B, C, and E, the political frame was not highly salient. As a notable contrast, School A interviews revealed a strong negative political framing of their experience. The negative experience intimately linked to a sense of disempowerment to choose and shape the reform effort in relation to other school initiatives. In contrast, teachers at other school cases reported a sense of empowerment stemming from the reform; however, limited resources and competing priorities remained concerns.

Across a number of interviews at School A, frustrations emerged directly linked to the lack of decision-making authority and teacher voice. The hierarchy in place from the district office to the classroom levels relegated teachers to a position of compliance to top-down decisions.

> I think it was a real struggle for us….We didn't have a choice whether we did [the arts integration program] or not. It was like, "You'll do this." So, it's a hard…when you are in that mindset, it makes it a lot more difficult. And I wouldn't have minded. I think it will be better as a conversation and agreement, then to just be like, "Hey you're going to do this thing."

This teacher's response suggests that the reform itself was not the source of frustration but, rather, the manner in which it was implemented from administrators within the district and school. Motivation to engage meaningfully (or even just comply) hinged on the degree of volition enabled by the reform. The teacher framed the barrier to motivation and enthusiasm as an exertion of unilateral power, triggering negative teacher perceptions early with the potential to stymie the goals of the reform. That individual-level frustration further stymied the opportunity for meaningful organizational growth. Frustration was keenly tied to a sense of powerlessness and ambiguity regarding the organization's goals, as captured in one teacher's experience:

> Right now, there's so many unknowns that it's hard to make decisions….I don't feel like our administration's not making decisions, it's just like they don't know either, and some of it's from the district….It's all these different things. I know that's kind of always the case, but we're talking about some really big changes with STEAM,[2] and so just trying to figure out….If you're talking about big, system-wide changes, but we're talking about two things that aren't quite aligned yet…or three things, actually, that aren't aligned yet. It's just, as a teacher, you're like "I just don't know."

This sense of powerlessness, ambivalence, and confusion, while present at some of the other sites, was not reflected with the same magnitude and omnipresence in the data. At School A, though, the level of engagement necessary to achieve that empowerment appeared thwarted by powerlessness and frustration. And, yet, multiple teachers across sites actually reported a sense of empowerment that developed while participating in the arts-integration reform. One teacher shared the perception that the focus of the arts-integration model had been "to supplement what you're doing and help with what you're doing and reach the kids in a different way…[they] don't want to add on or take away…they're not trying to just say, you have to do this…on top of everything else." This empowerment did not stop at the teaching level but extended to students. For two teachers of School E, the arts-integration program pushed them to turn over authority to students, which allowed students more space to struggle than the teachers had previously been comfortable with. One teacher expressed this sentiment cogently:

> [Arts integration is] less constrained, like if it goes in a different direction like, "That's okay," it's like, "Well, there's still stuff to learn in that direction too." Whereas I think some of our other courses it's like, "Well, like that is an interesting question, but like let's get back to what we have to study here…"

This perspective illustrates the political frame inherent in how teacher authority confronts student voice, choice, and autonomy. While student voice and choice were prevalent in other interviews, this political framing was only presented at School E.

An expressed concern was that of competing interests within a system of limited resources. As all five sites faced pressure to improve, teachers reported experiencing simultaneous reform efforts or different accountability metrics. This led to concern regarding opportunity costs of competing initiatives. One teacher expressed concern for continued support of the arts-integration program once the new incoming administration was in place—a fear about what new agendas may overshadow or derail the arts-integration work.

Political concerns of power and decision making appeared balanced by common interests. Teachers at Schools B and E framed the prioritization of arts-integration work around an implicit common interest of student engagement. The work to adapt teaching practices to facilitate deeper student engagement, though not always identified as a common interest or lever of political power, was clearly a chief personal motivator driving system-wide growth.

Human resource—here we go

All five sites demonstrated high salience and positive valence with the human-resource frame of organizational learning. A pivotal human-resource support driving the reform's uptake and continued sustainability was the arts-integration specialist. The motivation of individual teachers contributed to positive perceptions of the program and a sense of organizational growth. That

motivation stemmed from a sense of freedom, creativity, risk tolerance, and belief in the importance of engaging students.

Across interviews, a consistent source of praise for the arts-integration program was the arts-integration specialist. Teachers highlighted the ability of the integration specialist to not just engage students through their instruction, but to support a school-wide shift in the approach to teaching and learning. One teacher described the integration specialist as "part of our school culture.…I feel like he brings a really unique perspective." For many, especially in sites with political and structural challenges, the relationship between the arts-integration specialist and the school was key to facilitating engagement with students and teachers. In one departure from this positive salience, one teacher expressed fear of becoming overly reliant on the integration specialist to lead the integrated lessons, which might limit growth in self-efficacy.

The act of adapting one's teaching to meet the goals of the reform model was described by numerous teachers as a challenge. Some described this challenge as an opportunity to employ and model a growth mindset for their students. One teacher drew a parallel between his level of discomfort with art and his students' uncertainty during arts integration. He described how he sought ways to empathize with and support them. Another teacher described how integration of the arts provided an opportunity for her to model tolerance for ambiguity for her students:

> Clay kind of scares me. It's good for me and it's good for the students to see we're uncomfortable, and to show them I'm going out of my comfort zone in front of them, and trying to do something completely new, and it might fail. They're totally willing to let that happen. That was really great.

The importance of modeling good risk-taking and a positive, growth-oriented attitude for students through their own practice became a priority of some teachers. The reflection and openness found across interviews demonstrated a heightened level of comfort and pride, indicative of the human-resource frame driving wider organizational growth. One teacher, an outlier, shared consistently negative perceptions about her own experience at project-related trainings engaging in the arts as a learner ("I know that there are people that appreciate some of that weird stuff"). Still, that same teacher expressed that the arts-integrated learning experience for students as "invaluable."

Responses suggested that freedom and authority existed in individual-level adaptations afforded by the program, through self-direction and experimentation in the classroom—"I'm always trying to figure out good ways of integrating art and the other subjects I teach. I'm always scrapping some projects that I don't think went well or trying to rework things." Arts integration symbolized a disruption to a singular, convergent approach to teaching and learning. This became a means to tap typically unrecognized talents of students, a consistent motivator for teachers. Reinforced in the perspectives of teachers across cases, witnessing high levels of cognitive and behavioral engagement in the arts-integration work was a profound motivator. One reflection captures this perspective well:

> So much of it is book, notes, read, book, notes, read. It doesn't give a lot of opportunity for creativity and so a lot of those kids start acting out, behaviorally, because they aren't meant to be the book, notes, read kid.…We saw kids that we weren't expecting to shine, definitely shine.

This insight was reflected in another teacher's description of how arts integration enhanced a student's learning experience: "[He was] a struggle to get to participate in any of his classes. He's goofy. He wants to play around with his friends….In [the arts-integration program] I noticed that his behavior issues nearly went away."

The motivation that teachers reported in relation to the reform was not restricted to individual classrooms, but in some cases was described as manifesting through a powerful shared philosophy across the school. One teacher described the organizational cohesion that comes through individual growth and investment:

> I became a true believer this year, and I really saw this philosophy on the students. I saw this growth. What we were teaching makes complete and total sense to me. It's just something that I feel like we should continue weaving throughout the entire school.

This motivation was linked to self-managing innovation, as teachers at Schools B, C, and E all shared that they had begun planning for implementation in the following year independent of the consulting integration specialist. The effect of the integration specialist and external observers from the research team also generated motivation for a teacher. The teacher expressed a realization that this was about more than art, it was about a long-term shift in teaching practice, like, "how you clean your house for company…we have to keep pushing…that push it and push it, having [the integration specialist] there with the energy and resources to say, 'here we go.' That was a major gift to me this year."

A positive orientation of the human resource frame included the willingness to take risks, put in effort to see a challenge through, give and receive support, and feel further motivated by witnessing the profound effects of ones' work—in this case, the improved lives of students. Data suggested that this motivation spanned teachers and drove reform uptake and sustained effort.

Symbolic—not like the rest of school

Overall, the symbolic frame resonated across teachers, presenting with high salience and positive valence at Schools B, C, D, and E. The student learning experience held high symbolic value across teachers of all sites, reflecting shared values of the teachers and the school community. Additionally, the SHOM emerged as an integral piece in the reform implementation, providing a strong shared language and mental model that many reported as enhancing their individual experiences within their school's culture, at large. In contrast, the integration of arts into other discrete content areas challenged the identity that many teachers connected with the content area they taught. That challenge led to both growth and tension.

For many, the SHOM were cited as a valuable mental model complimenting the existing values of the school community. One teacher shared,

> What the school does or can do is to provide an immersion in a community in which these habits are taught to, explicitly addressed and approached. The more and more you can build that community where you weave those habits of minds into it, the better.

One teacher drew parallels between the SHOM framework and the framework that the school had shaped throughout the years, sharing how she documented and illustrated the links between these two frameworks for herself and for her students. The SHOM represented accessible and transferrable skills, as a teacher indicated in this excerpt:

> You can always just tell them like, "Well, what do you *observe*? Like look closely, look carefully, like you can all do that." They're like accessible skills…and maybe they're on a continuum of where they are at….They might currently not be observant but I think that they can really, even if they don't feel like they can draw…you can be like, "Well, you can look carefully at it and you can get better at looking carefully."…I think that's really transferrable.

Student voice, something described as a focus in the reform model, held symbolic importance across sites and the arts held symbolic value to many teachers as a means to open new pathways for student expression, student meaning making, and student creativity.

> For [students] to make their own connections…a little bit of ownership. It gives them a chance to formulate their own meaning about more difficult topics or at least, like, try to….In a way that's not like the rest of school where it's like, "We desperately need you to…like, I have to test you on this, like, you need to know this…

Another teacher approached the arts-integration program as another "tool" in his toolbox to help his students, reflecting that "I think the best way of looking at [the arts-integration program] is [as] another way, another tool that I can use to help kids understand the material, and more importantly, allow them to express themselves." Teachers emphasized how arts-integrated lessons created a safe

and open space for students to explore their own emotions and perspectives and witness those of their peers.

While teachers framed the value of the arts-integration reform positively most often, competing messages and ambiguity about building coherence across multiple reform approaches resulted in an unclear vision for one site in particular (School A). Similarly, the valence of arts integration as a disrupter of static, discipline-specific identities appeared to be mixed for teachers. One teacher expressed, "Everybody's getting on board and just forming the culture of the school….We have a lot of teachers who have been teaching for a while, and they're comfortable…people can get complacent when they're good." In contrast, another teacher differentiated her role from the integration specialist's role, sharing that "she is the [integration program] teacher, I am the [math] teacher"—demonstrating a resistance to the adoption of an integrated, multidimensional teacher identity.

Discussion

In this study, we explored the teacher experience in an intensive arts-based school reform program through a systems thinking lens of organizational learning framed within structural, political, human resource, and symbolic dimensions. We sought to understand the organizational supports and barriers, as well as attitudinal orientations toward the program, through these frames. We aimed to detect potentially powerful mechanisms to employ in creative models to achieve openness, ownership, and effective and sustainable adaptation.

Shared authority or acquiescence?

Though the arts-integration program began as a top-down decision, the political frame was not highly salient and sentiments of being forced to participate were not the norm. Still, this low salience may also reflect an accepted acquiescence to how decisions are made that affect the job expectations of educators. In most schools, the structure of the reform allowed for shifts in the centralization of leadership and decision-making power toward self-managing innovation teams. The nature of the integration process helped shared objectives and mental models take priority over divergent coalition interests and content-area isolation. There was evidence that the school-change approach developed the *pedagogical artistry* and reflective inquiry of teachers to be curious about opportunities for interdisciplinary and integrated learning and adopt a leadership stance to spread and sustain the approach in their school (Castner et al., 2017).

Given the coherence of the political salience in School A, the way that decisions were made during implementation, and which interests got addressed or ignored, may reflect an organizational culture in flux—perhaps a result of leadership turnover in prior years or district-office pressure for school improvement. At Schools A, D, and E, diverse perceptions of the new arts-integration reform program fell under both negative and positive valence, with consistently strong sentiments about the positive effect on the student experience. In most cases, that positive perception overpowered other barriers. Perceptions within Schools B and C depicted a coherent perspective of receptivity, appreciation, and possibility.

Confrontation and contrast

One goal of this inquiry was to understand how the frames interact on the ground during reform implementation. It is important to consider these frames as both contrasting and complementary to understand how they influence the behaviors and dispositions of educators. School A demonstrated the most powerful confrontation of organizational learning frames. The political frame dominated and fostered a powerfully negative attitudinal orientation that clashed with symbolic and human-resource frames and detracted from progress. At School A, the positive support teachers experienced from the arts-integration specialist and the reward of heightened

student engagement encountered the dramatic barrier of lopsided decision-making power and an organizational identity and culture in flux. As such, the political framing, across cases, most often represented barriers to teacher support rather than empowerment. Still, the consistent themes of empowered and creative student learning, supportive learning environments, and philosophical alignment with the core intent of the program resonated as key drivers to overcome political and structural barriers. The sense of empowerment reported by many teachers echoes a key finding in the study of school reform, as teacher commitment to the organization overall may be tied to the degree to which they feel consulted in the decision-making process (Dannetta, 2002).

As Dannetta (2002) suggests, the factors that influence teachers' commitment to quality student learning include an array of organizational and personal components. Interestingly, our findings suggest that perceived creative engagement and success of students may be more powerful than other personal factors. This builds on Dannetta's (2002) work, which found the most salient external factor to be that of positive relationships and interactions with students. In school cases where symbolic and human-resource framings facilitated deeper student engagement, teachers perceived the integration to be a more positive and important intervention in promoting organizational shifts. Structures that supported more student-centered teaching and learning complimented the symbolic and human-resource framing.

Within school cases, some teachers shared negative perceptions related to the structural and political frames that contrasted with positive symbolic and human resource framing. It is possible that barriers in the political and structural frames—such as a tight curricular scope and sequence in math, for instance—may limit the openness of teachers to embrace the opportunity themselves as learners, even when they see the results in enhanced student learning and engagement. Across cases, the intensity of perceived barriers—especially the perception of involuntary participation—linked to lower levels of motivation and satisfaction in the work.

Shifts in teacher identity and commitment to growing in the arts-integrated practice seemed to confront difficult existing structures and political dynamics. Teachers expressed commitment to professional identity through their drive to take risks and grow—within their content and classroom and through their students' engagement. Old narrow identities driven by content focus gave way to new role identity and confronted the commanding edifice of the education system—a predetermined professional development regiment, inflexible high-stakes testing, prescribed content standards, and discipline isolation.

Another important confrontation emerged in the analysis of School E, implicating the symbolic, human resource, and political frames. The symbolic power of student engagement and agency that clearly served as a motivator to teacher's risk taking and effort contrasts with the authoritative hierarchy of classroom discourse, curriculum, and pedagogy, typical to middle and high schools in the United States (Zhao, 2012). This tension resonated with one teacher explicitly but appeared to go unnoticed by most others and, instead, emerged out of deeper data analyses. From a human-resource frame, the risks faced by letting go of this power may be too great to overcome for teachers. Given the political context that dictates teachers' professional reality through policy mandates, evaluation systems, and accountability, this confrontation is not surprising.

An empowerment model for practice

Our findings build on Bolman and Deal's (2013) organizational learning frames and Dannetta's (2002) factors of teacher commitment to inform a theoretical model to inform approaches in practice. Figure 1 illustrates the basic process we propose. First, early in the stages of implementation planning and design, the political frame should be considered thoroughly. Stakeholders should ask, *how can decision-making power regarding the change effort be shared with those primarily responsible for implementation, and promote inclusive input from a wide range of stakeholders without compromising the integrity of the school change effort?* Second, in the planning and pilot stage, when the

reform effort gets adapted to the constraints of the context, the structural elements of both the school and the incoming reform that are either complementary or conflicting should be noted and addressed. The driving question could be, *how can we ensure that features of the school and the reform support the individuals who are responsible for implementation and what structural elements are at risk for conflict?*

Third, stakeholders with the greatest power to affect the design of the reform effort should discover the interests, aspirations, and fears of those responsible for implementation, keeping in mind that witnessing engaged learners will be a chief motivator for teachers. The driving question could be, *what do those responsible for implementation feel most driven to learn and develop and how do the immediate effects of the reform effort become visible and understood?* Fourth, reform of any kind carries heavy symbolic and potentially disruptive weight and may challenge the existing beliefs, philosophies, pedagogies, and identities of stakeholders. In these cases, reform designers should consider how to gradually shift those beliefs and attitudes with strong mental models without provoking too strong a resistance and reaction. Clear mental models and consistent rituals should be introduced early in training and school change efforts and reinforced regularly to shift behaviors and beliefs. Stakeholders should ask, (a) *What are the current mental models and beliefs held by those responsible for implementation or within the organizational culture that detract from the reform efforts?* and (b) *How can new mental models and rituals gradually merge with or displace existing ones?*

The characteristics of design-based research (DBR) methodology complements the paradigm of empowerment suggested by Bolman and Deal's (2013) organizational learning and Dannettas's (2002) factors of teacher commitment. DBR makes the processes of design, research, and practice synergistic through interactive, iterative, contextualized, and flexible research design and implementation (Wang & Hannafin, 2005). By valuing a participants' own inquiries and contextual knowledge, DBR does not adhere to a specific methodology or a singular idea about the role of the researcher and the practitioner. Through a DBR approach, education researchers and evaluators can further the efforts to empower educators as agents of substantive inquiry and change in the endeavor of education progress.

Future direction

In reform efforts, designers and implementers should remain aware of how overreliance on any specific individual can engender a sense of uncertainty and confusion when key personnel depart (Bolman & Deal, 2013). Sustainability is an area of concern in many reform efforts (Wohlstetter & Smith, 2000), and in the case of this study, a number of teachers feared a lack of structures to ensure a transfer of roles and capacity when the arts-integration program would conclude, potentially diminishing their commitment to the effort. The arts-integration specialist was seen as a key resource, but teacher concerns focused on the sustainability of efforts when the specialist's engagement concluded. Future reforms that rely on intensive coaching and collaboration with an external specialist should carefully scaffold teacher development to gain self-efficacy in new practices and frameworks to avoid an overreliance on external resources that may be time-bound and contingent on funding. Phasing out intensity of contact, as in the model studied, may best support developmental stages.

The SHOM were identified as a powerful framework and mental model to carry arts integration across student learning and to bridge teaching innovations to school-culture development. Another powerful mental model that emerged from the arts-integration reform experience for teachers incorporated student engagement, creativity, risk tolerance, and growth mindset about skill development. Indeed, individuals' capacity to connect their efforts to progress contributes to a sense of self-worth; when that connection is shared across individuals, made visible and celebrated, individual growth becomes organizational learning (Herzberg, 1965). In the school cases where individual teachers reported experiencing these motivators in their individual growth, observations of

organizational growth appeared more frequently. Viewing these results through a symbolic frame highlights the power of witnessing student engagement in creative learning experiences. To generate a stronger sense of organizational cohesion and growth in challenging and innovative reform efforts, stakeholders should spotlight the primary motivational factor for commitment—symbols of powerful student engagement.

Conclusion

Within education systems that too often rely on outside intervention without consultation of key stakeholders, notably teachers and students, it is no surprise that school change efforts often meet barriers toward meaningful implementation. This challenge exists even for reforms that might seem immune to negative perceptions, such as the integration of artistic forms across learning. Indeed, this study demonstrates that context matters and the capacity of organizations to let teachers imagine and grow into identities as pedagogical artists is paramount. The findings underscore the need to account for how individual stakeholders experience the disruption of new practices and how schools, as learning organizations, experience change as a whole of separate parts. Results suggest a focus on designing reform with explicit opportunities for adaptation, incorporating active and responsive movement across different organizational learning frames.

Rather than seeing reform as a one-way implementation process, the results of this study establish a bidirectional relationship between the reform effort and the stakeholders responsible for implementation, demonstrating a generative organizational and individual learning process. This study reveals the importance of accounting for key elements of organizational culture, such as existing mental models of teaching and learning, beliefs about key features of the reform (e.g., the arts), and attitudes about decision-making power and resources. Reform efforts must also consider existing organizational structures before assuming that a reform effort will work as designed without adaptation. As this study demonstrates, the four organizational learning frames can serve as a comprehensive mental model for design of professional development and school change efforts. By making the various competing forces at play in organizational learning visible and understood, the results and recommendations of this study can support more thoughtful uptake and sustained effort toward positive educational change. If teachers are to fulfill Dewey's (1989) promise of becoming the ultimate artists for democratic society—pedagogical artists—school organizational learning through arts integration provides a promising path.

Notes

1. The Studio Habits of Mind were identified by Hetland, Winner, Venema, and Sheridan (2013) from research on the habits of professional studio artists. These eight habits include: observe, envision, stretch and explore, engage and persist, express, develop craft, understand the art world, and reflect.
2. STEAM refers to education programs that focus on science, technology, engineering, the arts, and mathematics.

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ORCID

Ross C. Anderson http://orcid.org/0000-0002-2250-4686

References

Anderson, R. C., Guerreiro, M., & Smith, J. (2016). Are all biases bad? collaborative grounded theory in developmental evaluation of education policy. *Journal of*Multidisciplinary Evaluation, *12*(27),44–57. URL: http://journals.sfu.ca/jmde/index.php/jmde_1/article/view/449

Anderson, R. C., & Pitts, C. (2017). Growing sustainable school culture: arts integration to nourish the soil and the seeds. In (Eds.), *Arts evaluation and assessment: measuring impact in schools and communities*. Switzerland: Palgrave MacMillan.

Apple, M. (1982). Curriculum and the labor process: The logic of technical control. *Social Text*, *5*(p), 108–125. doi:10.2307/466338

Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Upper Saddle River, NJ: Prentice Hall.

Berliner, D. (2011). Rational responses to high stakes testing: The case of curriculum narrowing and the harm that follows. *Cambridge Journal of Education*, *41*(3), 287–302. doi:10.1080/0305764X.2011.607151

Bolman, L., & Deal, T. (2013). *Reframing organizations: Artistry, choice, and leadership 5th edition*. San Francisco, CA: Jossey-Bass.

Burnaford, G., Brown, S., Doherty, J., & McLaughlin, H. J. (2007). *Arts integration frameworks, research practice*. Washington, DC: Arts Education Partnership.

Castner, D. J., Schneider, J. L., & Henderson, J. G. (2017). An ethic of democratic, curriculum-based teacher leadership. *Leadership and Policy in Schools*, *16*(2), 328–356.

Corbett, D., Wilson, B., & Morse, D. (2002). *The arts are an "R" too*. Jackson, MS: Mississippi Arts Commission.

Cuban, L. (1990). Reforming again, again, and again. *Educational Researcher*, *19*(1), 3–13. doi:10.3102/0013189X019001003

Dannetta, V. (2002). What factors influence a teacher's commitment to student learning? *Leadership and Policy in Schools*, *1*(2), 144–171. doi:10.1076/lpos.1.2.144.5398

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teacher's College Press.

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. *Journal of Educational Change*, *12*(2), 147–158. doi:10.1007/s10833-011-9154-1

Dedoose Version 7.0.23. (2016). *Dedoose: A web application for managing, analyzing, and presenting qualitative and mixed method research data*. Los Angeles, CA: SocioCultural Research Consultants, LLC.

Dewey, J. (1989). *Freedom and culture*. Amherst, NY: Prometheus Books. (Original work published in 1939).

Diamond, J. B., & Spillane, J. P. (2004). High-stakes accountability in urban elementary schools: Challenging or reproducing inequality? *Teachers College Record*, *106*(6), 1145–1176. doi:10.1111/tcre.2004.106.issue-6

Dunst, C. J., Trivette, C. M., & Hamby, D. W. (2010). Meta-analysis of the effectiveness of four adult learning methods and strategies: Supplemental tables and references. *Learning*, *3*(1), 91–112.

Fullan, M., & Quinn, J. (2015). *Coherence: The right drivers in action for schools, districts, and systems*. Newbury Park, CA: Corwin Press.

Giles, C., & Hargreaves, A. (2006). The sustainability of innovative schools as learning organizations and professional learning communities during standardized reform. *Educational Administration Quarterly*, *42*(1), 124–156. doi:10.1177/0013161X05278189

Government Accountability Office. (2009). Access to arts education: inclusion of additional questions in education's planned research would help explain why instruction time has decreased for some students (GAO-09-286). Retrieved from https://www.gao.gov/products/GAO-09-286

Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher*, *15*(5), 5–12. doi:10.3102/0013189X015005005

Hall, G., & Hord, S. (2014). *Implementing change: Patterns, principles, and potholes*. New York, NY: Pearson.

Herzberg, F. (1965). The motivation to work among finnish supervisors. *Personnel Psychology*, *18*(4), 393–402.

Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World Publishing.

Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work* (2nd ed.). New York, NY: John Wiley.

Hetland, L., Winner, E., Venema, S., & Sheridan, K. (2013). *Studio thinking 2: The real benefits of visual arts education*. New York, NY: Teachers College Press.

Joyce, B., & Showers, B. (2002). Student achievement through professional development. Designing training and peer coaching: Our need for learning. Alexandria, VA: ASCD.

Lackey, L., & Huxhold, D. (2016). Arts integration as school reform: Exploring how teachers experience policy. *Arts Education Policy Review*, *117*(4), 211–222. doi:10.1080/10632913.2016.1213120

Lipsky, M. (1971). Street-level bureaucracy and the analysis of urban reform. *Urban Affairs Quarterly*, *6*(4), 391–409.
Marks, H. M., & Louis, K. S. (1999). Teacher empowerment and the capacity for organizational learning. *Educational Administration Quarterly*, *35*(5), 707–750. doi:10.1177/0013161X99355003
Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396. doi:10.1037/h0054346
Maurer, T. J., & Tarulli, B. A. (1994). Investigation of perceived environment, perceived outcome, and person variables in relationship to voluntary development activity by employees. *Journal of Applied Psychology*, *79*, 3–14. doi:10.1037/0021-9010.79.1.3
Mays, N., & Pope, C. (1995). Rigour and qualitative research. *British Medical Journal*, *311*, 109–111.
Meyers, C. V., & Smylie, M. A. (2017). Five myths of school turnaround policy and practice. *Leadership and Policy in Schools*, *16*(3), 502–523. doi:10.1080/15700763.2016.1270333
Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: a methods sourcebook*. Thousand Oaks, CA: Sage Publications, Inc.
Noblit, G. W., Corbett, H. D., Wilson, B. L., & McKinney, M. B. (2009). *Creating and sustaining arts-based school reform: The A+ schools program*. New York, NY: Routledge.
Noe, R. A., & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Journal of Applied Psychology*, *78*, 291–302. doi:10.1037/0021-9010.78.2.291
Orfield, G. (2014). Tenth annual brown lecture in education research: A new civil rights agenda for american education. *Educational Researcher*, *43*(6), 273–292. doi:10.3102/0013189X14547874
Peppler, K., Powell, C. W., Thompson, N., & Catterall, J. (2014). Positive impact of arts integration on student academic achievement in English language arts. *The Educational Forum*, *78*, 364–377. doi:10.1080/00131725.2014.941124
Pink, D. H. (2011). *Drive: the surprising truth about what motivates us*. New York: NY: Riverhead Books.
Porter, E., & Cohen, M. (2013). Phenomenology. In A. Trainor & E. Graue (Eds.), *Reviewing qualitative research in the social sciences* (pp. 181–196). New York, NY: Routledge.
Rabkin, N., Reynolds, M., Hedberg, E., & Shelby, J. (2011). *Integration specialists and the future of education: A report on the integration specialist research project*. Chicago, IL: NORC at the University of Chicago.
Robinson, A. H. (2013). Arts integration and the success of disadvantaged students: A research evaluation. *Arts Education Policy Review*, *114*(4), 191–204. doi:10.1080/10632913.2013.826050
Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological Science in the Public Interest*, *13*(2), 74–101. doi:10.1177/1529100612436661
Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organization*. Chicago, IL: Crown Publishers.
Stoelinga, S., Silk, Y., ., Reddy, P., & Rahman, N. (2015). *Turnaround arts initiative: Final evaluation report*. Washington, D.C.: President's Committee on the Arts and the Humanities.
Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, *7*(4), 221–258. doi:10.1007/s10833-006-0001-8
Thier, M., Smith, J., Pitts, C., & Anderson, R. C. (2016). Influential spheres: examining actors' perceptions of education governance. *International Journal Of Education Policy & Leadership*, *11*(9), 1–21. http://journals.sfu.ca/ijepl/index.php/ijepl/article/view/682
Wang, F., & Hannafin, M. J. (2005). Design-based research and technology-enhanced learning environments. *Educational Technology Research and Development*, *53*(4), 5–23. doi:10.1007/BF02504682
Wohlstetter, P., & Smith, A. K. (2000). A different approach to systemic reform. *Phi Delta Kappan*, *8*(1), 7.
Zhao, Y. (2012). *World class learners: Educating creative and entrepreneurial students*. Thousand Oaks, CA: Corwin Press.
Zuckerman, S. J., Wilcox, K. C., Durand, F. T., Lawson, H. A., & Schiller, K. S. (2018). Drivers for change: A study of distributed leadership and performance adaptation during policy innovation implementation.*Leadership and Policy in Schools*, *17*(4), 618–646.