# **Beyond the Factors: The Threads of School Improvement**

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School improvement is primarily about the "stuff" that needs to be addressed. Over the years, the "goods" have been called correlates, factors, elements, ingredients, and so on. At the same time, school improvement is about conditions and supports that both link elements and provide some of the fuel for them to work well, conditions that lurk in the background of the school improvement narrative. In this article, because leadership for school improvement requires a clear understanding of and ability to work with what we call the threads of change, we pull these conditions and supports from the background and put them on center stage. We start with some guidelines about the road to school improvement and move on to analyses of three supporting concepts: collective work, context, and coherence. It is important to begin with an acknowledgment that there is considerable overlap among these supports and conditions.

## Getting Started: Navigating the Trip

I never underestimate teachers' skill in continuing to do what they consider works for them and resisting that with which they do not wish to engage. (Hattie, 2009, p. 215)

Major figures in the study of organizational change such as Fullan (1982) and school improvement such as Bryk and colleagues (2010) have described the school improvement pathway as uneven and full of unexpected twists and turns (McDougall, Saunders & Goldenberg, 2007; Wilson & Berne, 1999). Or as Newmann (1992, p. 192) so nicely notes, "productive school change does not proceed on a tight linear path from a detailed plan to . . . success in terms of original intention." Scholars in these domains portray change as evolutionary as well as planful. The voyage according to Ancess (2003, p. 32) is marked by "a pattern of fits, starts, retreats, and starts again rather than as a smooth linear path."

In particular, analysts have discovered that school improvement work, especially in schools with large numbers of students at risk, is often characterized by increased tensions, the unsettling of comfortable routines, cultural resistance, new enactments of micropolitical behavior, and the surfacing of concerns (Datnow & Castellano, 2001; Goldenberg, 2004; Sweetland & Hoy, 2000). Thus, they document that change is often accompanied by an implementation dip (Curry, 2008; Fullan, 1993; Louis, 2007). Things are likely to trend downward, both in human terms such as

confidence and morale (Fullan & Ballew, 2001; Louis, 2007) and performance (Bryk, Sebring, & Allensworth, 2010; Fullan, 1993), before they turn upward.

Relatedly, we learn that success is fragile (Galletta & Ayala, 2008; Goldenberg, 2004). Victory is hardly inevitable and once garnered requires some vigilance to maintain (Betts, Zau, & Koedel, 2010; Bryk et al., 2010). Turnover of personnel is often accompanied by regression (Dede & Honana, 2005; Firestone & Martinez, 2007; Goldstein, 2004). Energy naturally leaks out of the system (Dinham, 2005) and the loss is often unnoticed or if detected not replenished (Goldenberg, 2004; Sindelar, Shearer, Yendol-Hoppey, & Liebert, 2006). The environments in which schools find themselves are always evolving, pushing one reform forward only to be replaced by another a short time later (Brunner, Fasca, Heinze, Honey, Light, Mandinach, & Wexler., n.d.; Dede & Honana, 2005; Malen & Rice, 2004). Mandates proliferate, overload sets in, fragmentation increases, meaning dissipates, and people withdraw (Author, 2009; Finnigan & Gross, 2007; Malen & Rice, 2004) to the safety of the past and the comforts of old routines (Ackerman, Maslin-Ostrowski, 2002; Blumenfeld, Fishman, Krajcik, Marx, & Soloway, 2000; Olsen & Kirtman, 2002). Change becomes a ritual that washes over the school (Cuban, 1984; Galletta & Ayala, 2008; Malen & Rice, 2004). Sustainability is undermined (Fullan & Ballew, 2001; Stoll, Bolam, McMahon, Wallace, & Thomas 2006).

### Collective, Multifactor Work

School reform initiatives are "impoverished" when they ignore the factors outside of schools that contribute to failure. (Galletta & Ayala, 2008, pp. 1981-1982)

One of the most important understandings that has emerged from the broad field of school improvement, especially improvement for students placed at risk, is that troubles and problems are traceable to the broader society in which schools are nested (Downey, von Hippel, & Broh, 2004; Rothstein, 2004; Shannon & Bylsma, 2002). Therefore, school improvement efforts must extend beyond the school (Berends, Sullivan, & Briggs, 2005; Lee & Burkham, 2003; Spradlin et al., 2005). This means collective work (Author, 2010a; 2011; Smerdon, Borman, & Hannaway, 2009). To start, it means a larger role for non-school agencies in reshaping the political, economic, social, and cultural forces that disadvantage many children (Kober, 2001; Miller, 1995; Newmann, 1992). Second, it suggests that schools and other institutions and systems of support need to work in tandem (Reynolds, 2002; Shannon & Bylsma, 2002; Singham, 2003). None alone are likely to be successful, especially when improvement means turning around troubled situations (Author, 2010b). Third, it necessitates greater efforts on the part of schools to extend their work beyond the traditional boundaries of schooling, to take ownership for a wider array of services (Entwisle, Alexander, & Olson, 2000; Hughes, 2003; Jordan & Cooper, 2003).

We have also learned over the years that there is no single factor, element, or component that will lead to dramatic school improvement (Baenen, Dulaney, Yamen, & Banks, 2002; Balfanz & Byrnes, 2006; Stiefel, Schwartz, & Ellen, 2006). What is required is a collective attack (Chatterji, 2005; Halverson, Grigg, Pritchett, & Thomas, 2007; Thompson & O'Quinn, 2001), "a mix of strategies" (Thomson, 2002, p. 5). A productive school improvement design would be comprehensive, providing a combination of elements (Ancess, 2000; Leithwood & Jantzi, 2000; McGee, 2003). It would provide significant initiatives on a number of fronts (Felner, Seitsinger, Brand, Burns, & Bolton, 2007; North Carolina, 2000; US Commission on Civil Rights, 2004), i.e., be multi-layered and multitiered (Bryk et al., 2010; Roscigno, 1998). As we discuss in detail below, the design would be interconnected, aligned, integrated, and coordinated (Author, 1993; Reynolds,

2002; Silins & Mulford, 2010). It would feature what Miller (1995, p. 376) calls the principle of "complementarity" at both the strategy and institutional levels. It would attend to both the short and long term (Kober, 2001). It would offer redundancy (Miller, 1995).

The chronicle on multi-strand school improvement work contains a number of key sub themes. We know, for example, that there are some components that are necessary not because they push the needle forward but because their absence can derail the rest of the bundle of work. A safe and orderly learning environment falls into this category (Bryk et al., 2010; Wynne, 1980).

We also know that weaknesses in any of the key pieces of the overall design make improvement problematic (Stringfield & Reynolds, 2012); each element needs to reach at least the moderate level of effectiveness (Bryk et al., 2010). Additionally, there is some evidence of a multiplier effect in play (Brewer, 1993). "A" may be weak by itself as might "B." Together, however, they might produce a moderate to strong effect, what Hattie (2009) refers to as an "interaction effect." It is a combination of small effects working together that make a difference (Author, 2010a; Felner et al., 2007; Quint, 2006).

Studies of school improvement with nearly every group of students at risk inform us that the more disadvantaged the population the more effort is needed to reach success (Author, 2010b; Elbaum, Seitsinger, Brand, Burns, & Bolton, 2000; Newmann, 1992), and the more constant that work must be (Author, 2010a; Rumberger & Palardy, 2005). For example, while middle-class school communities benefit from school improvement ingredients measuring at mid-level strengths, only high strength leads to improvement in at risk communities (Bryk et al., 2010).

Researchers have also uncovered another dimension of the multiple factor law. For students placed at risk both academic and cultural levers need to be engaged (Croninger & Lee, 2001; Fredricks, Blumenfeld, & Paris, 2004; Rothstein, 2004). As Becker and Luthar (2002, pp. 204-205) remind us:

Methods that demand higher educational standards without a similar emphasis on the social-emotional needs of early adolescents will not result in much success. Efforts to improve the social-emotional needs of disadvantaged students without a comparable application of instructional and curricular methods to attain academic excellence will be similarly ineffective.

Clearly then "instruction matters and it matters a lot; but so does the social context in which it is embedded" (Bryk et al., 2010, p. 209; Battistich, Solomon, Kim, Watson, & Schaps, 1995). Indeed, "the greatest achievement effects follow from strong combinations of communality and academic press" (Shouse, 1996, p. 47; Rumberger, 2011; Stoll et al., 2006).

There is emerging evidence that the multifactor package of school improvement components for children placed at risk must avoid pivoting heavily on remediation. Successful work requires simultaneous movement on both helping youngsters catch up and keeping them in sync with their classmates. An effective design needs to include both remediation and acceleration (Author, 2010a). The corollaries are that (1) early intervention efforts almost always trump later work and (2) prevention of problems trumps remediation of problems (Betts et al., 2010; Balfanz, Herzog, & Mac Iver, 2007; Ensminger & Slusarcick, 1992).

Some of the most important sub lessons threaded into the role of collectivism in school improvement research address issues of time. We learn, for example, that sufficient time to get reforms germinated is quite important (Author, 1993; Goldenberg, 2004). We also learn from studies (Betts et al., 2010; Bryk et al., 2010; Goldenberg, 2004; Henry, Fortner, & Thompson, 2012; Huberman, Parrish, Hannan, Arellanes, & Shambaugh, 2011; Louis & Miles, 1991; Rumberger, 2011) and integrative reviews (Borman, Hewes, Overman, & Brown, 2003; Desimone, 2002;

Hattie, 2009) that it takes considerable time for improvement initiatives to flower (McKenna & Walpole, 2010).

An analog in this story is that, in general, improvement is developmental, it appears gradually and incrementally (Leithwood, 2008; Quint, 2006; Smerdon et al., 2009): Schools by and large do "not make dramatic improvement, but rather incremental improvement over time" (Huberman et al., 2011, p. 9).

Success is by no means assured in the school improvement game, especially when situations and environments are turbulent and when schools are in troubled condition (Author, 2009; Balfanz et al., 2007; Huberman et al., 2011). Because of this, and for substantive and symbolic reasons, small wins over time are heralded in the school improvement literature, especially for schools attended by underserved youth (Bryk et al., 2010; Huberman et al., 2011). These small impacts are often quite meaningful (Quint, 2006).

An important but less developed time theme is that some interventions play out differently across the career of students (Author, 2010a; Rumberger, 2011). For example, teacher expectations carry more weight with younger students. Other time themes were noted previously; early is better than later and prevention trumps remediation (Davison, Young, Davenport, Butterbaugh, & Davison, 2004; Heckman, 1995; Hill, Rowan, & Ball, 2005).

#### Culture and Seedbeds

Structural changes in and of themselves never have and never will predict organizational success. (Author, 1991, p. 76)

Perhaps the most essential threaded law that leaders and policymakers need to burn into their minds is that structural changes do not predict organizational outcomes, "structural change changes structure, not substance" (Ancess, 2003, p. 140; Fullan & Ballew, 2001; Newmann, 1992). Numerous studies and reviews have affirmed this fact over the last quarter century in nearly every domain of schooling (Antrop-Gonzalez, 2006; Cooper, 1999; Hattie, 2009) and nearly every researcher, developer, and school leader has been frustrated by this truth (Adams, 2010; Rodriquez, 2008; York-Barr & Duke, 2004). Additionally, what holds for structures holds for resources (Creemers & Reezigt, 1996; Spillane, Halverson, & Diamond, 2001) and policies (Louis & Miles, 1990; Newmann, 1981; Smerdon & Borman, 2009) as well. This is particularly unsettling knowledge because leaders have been inculcated to rely on structural change to power reform (Author, 1991; Elmore, 1995). Additionally, for reasons that Elmore (1995) explains in his classic essay (i.e., ease of use and high symbolic value) policy makers and other reformers routinely perpetuate the logic and practice of structural change.

Four lines of explanation shed light on the disconnect between structure and school improvement. One focuses on the fact that structures are a long way from outcomes: "the path between macro-level reconfigurations and micro-level processes and activities is long, many-jointed, and loosely linked in a number of places" (Author, 1991, p. 76). Structures need to produce changes in the conditions of learning if they are to be successful (Author, 1991; Hattie, 2009; Newmann, 1992). However, it is a problematic bet that they can do so (Elmore, 1995; Rodriquez, 2008; Smerdon & Borman, 2009). For example, moving from a regular schedule to a blocked one does nothing to change the quality of instruction nor the robustness of the curriculum in classrooms. Advisory periods are as likely to be sterile as they are to foster personalization (Author, 2013b; Newmann, 1992).

A second line of analysis concludes that schools are characterized by deep patterns of who they are and how they do the business of education (Grossman, Wineberg, & Woolworth, 2001;

Lortie, 1975; McLaughlin & Talbert, 2001). Structural patterns that are inconsistent with the existing grammar of schooling routinely fail to produce desired change (Betts & Shkolnik, 1999; Felner et al., 2007). The existing conditions, if you will, almost always cause new ideas to conform to the prevailing ideology rather than to shape it (Author, 2013b). This is the hallmark contribution of Fullan (1982, 1993) to education: the culture needs to change to make structures viable.

Third, there is considerable evidence that structural changes are often introduced with little sensitivity to the local context or situation in the school, regardless of whether or not there is congruence with the prevailing culture. We examine this essential supporting condition below.

Finally, schools are generally subject to the mistaken belief that the "goods" they want to import are an integral part of the structure they are inviting in (e.g., "community" always accompanies structural changes in the size of a school). The problem is that the assumption is false. The result is that the structure is imported but the DNA that made it work elsewhere is not. Schools end up with structural shells—empty forms—that do not power school improvement (Author, 1991, 2013a).

The great paradox here is that while reworking the culture, or the seedbed, of the school, is the main work, structural changes are required to hold new cultural patterns and understandings in place (Author, 2013a). That is, while structures have only limited influence on culture and conditions that enhance learning, without them new cultural perspectives will dissipate (Datnow & Castellano, 2001; Kirst & Meister, 1985).

## **Context**

The complexities of these varied contexts introduce a complicated web of factors that influence whether or not a particular characteristic or practice will produce the desired results. (Guskey, 2003, p. 16)

School improvement sleuths examining every aspect of change arrive at the conclusion that regardless of the "reform agenda" context is a cardinal, but not determinate, variable in the change growth process (Author, 1993; Jimerson, Anderson, & Whipple, 2002; Penuel, Riel, Joshi, Pearlman, Kim, & Frank, 2010), not simply a "container" for the work (Spillane et al., 2001). Context helps set the rules and norms as well as the constraints that shape improvement work (Author, 1985, 1986; Adams, 2010; Mitchell & Castle, 2005). Because situations are idiosyncratic, reforms must be molded to fit the context at hand (Dede & Honana, 2005; Scheerens, 1997; ten Bruggencate, Luyten, Scheerens, & Sleegers, 2012).

To begin with, it is important to remember that government context can heavily influence school-based improvement work—for better or worse (Mangin, 2007; Rumberger, 2011; Shear, Means, Mitchell, House, Gorges, Joshi, Smerdon, & Shlonik, 2008). Relatedly, a massive amount of evidence has accumulated that community contexts create powerful forces that can bolster or hinder improvement initiatives (Bryk et al., 2010; Crosnoe, 2011; Heck, 2000). SES, ethnicity, language, housing conditions, urbanicity, history, and so forth all matter (Adams, 2010; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marks, 2000).

Hattie (2009) in his hallmark meta analysis documented that classroom contexts exert considerable pull over improvement efforts as well (see also Birch & Ladd, 1997; Louis, Dretzke, & Wahlstrom, 2010; Supovitz, Sirinides, & May, 2010). Teachers bring their own cultural understandings, skills, and backgrounds to the job (Grossman et al., 2001; Palincsar, Magnusson, Marano, Ford, & Brown, 1998). Each develops a grammar of instruction that impacts how he or she views and engages with change (Hattie, 2009; Scheerens, 1997). The importance of teacher as "person-in-context" (Ford, cited in Geijsel, Sleegers, Leithwood, & Jantzi, 2003, p. 232) is an

important theme that is often overlooked in bringing school improvement correlates to life. For example, investigators often report that younger teachers with fewer years of experience are more apt to actively engage in reform efforts (Desimone, 2002; Walker & Slear, 2011). Subject matter taught and department affiliation also have a role in this chronicle (Goddard, Hoy, & Hoy, 2000; Palincsar et al., 1998; Supovitz et al., 2010).

School context also influences the viability and meaningfulness of improvement efforts, both directly and through the way it shapes activities in classrooms and the sensemaking of individuals (Clark, Dyson, Millward, & Robson, 1999; Chrispeels & Martin, 2002; Penuel, Fishman, Yamaguch, & Gallagher, 2007). We know, for example, that "level" often produces different interpretations of change efforts (Herriott & Firestone, 1984; Marks & Printy, 2003; Silins & Mulford, 2010). Geographical location has been found to be influential (Gonzalez & Padilla, 1997; Leithwood et al., 2004). So too has the health of the school and the extent of the challenges they confront, that is where they fall on the continuum from troubled to highly effective (Heck, 2000; Robinson et al., 2008; Stoll et al., 2006). The high student mobility that characterizes schools with a preponderance of students placed at risk also shapes school improvement efforts (Bryk et al., 2010). Because youngsters from different environments view education and schooling in different ways (Crosnoe, 2011; Farrell, 1990; Newmann, 1992), demographics of the student body is regularly uncovered as a school-level contextual variable that influences school improvement work (Author, 2010a; Conchas, 2001; Munoz, Ross, & McDonald, 2007). The nature of the community of adults in the schools is also consequential, especially the nature of relationships in place (Connolly & James, 2006; Guskey, 2003; Mitchell & Sackney, 2006).

The fact that context matters, and that it matters a good deal, has implications for policy makers, researchers, developers, and practitioners. However, an important caveat needs to be surfaced. To maintain that context is important is not the same thing as arguing that it is determinate and understanding does not require educators to be held hostage to context (Borman et al., 2003). Also, to underscore the importance of the situation does not mean that generalized reform ideas are dead on arrival. Indeed, as Leithwood (2005, pp. 620-621) reminds us, "leadership practices are common across contexts in the general form but highly adaptable and contingent in the specific enactment." Or turning to Bryk and associates (2010, p. 67), "the most effective managerial form for an organization is contingent on the technical and environmental circumstances affecting the core work of the organization." Thus the notion that all school reforms need to be completely homegrown is scientifically unjustified (Goldenberg, 2004). The objective is flexibility to meet or adapt to local conditions.

At the same time, members of the educational family need to acknowledge the place of situation when working with the correlates of school improvement, to understand that reform does not "occur in a vacuum, devoid of its surrounding context" (Coldren & Spillane, 2007, p. 387). They need to learn that context is not simply a "container" for reform (Spillane et al., 2001) but an essential aspect of the work itself. Included here is the understanding that what works easily or smoothly in one school may require the investment of considerable capital and energy in another school (Cuijpers, 2002; Newmann, 1992). It also means acting in ways that honor the limitations of telling and mandating as engines of school improvement (Newmann, 1992; Smerdon & Borman, 2009). Improvements have to play out at the street level (Goldenberg, 2004). While the prize is never abandoned, localization and customization are needed (and appropriate) to gain it (Bossert, Wyer, Rowan, & Lee, 1982; Leithwood et al., 2004; Penuel et al., 2007). Strategies and correlates must be formed to fit the situation (Cosner, 2009; Phillips, 2003) while working simultaneously to influence context in directions that support improvement. To be sure, the process cannot be permitted to produce "lethal mutations" (Penuel et al., 2007, p. 931) of reforms, but adaptation will

be the norm (Borko, 2004). Policy makers, researchers, developers, and practitioners also need to be cognizant of the fact that this adaptive school improvement work is likely to produce unintended consequences (Author, 2010a; Hamilton McCaffrey, Stecher, Klein, Abby, & Bugliari, 2003).

# Coherence

Coherence is vital for successful change; coherence is the result of consistency and integration from one setting to the next. (Goldenberg, 2004)

Building on the findings from the pioneers in the effective schools movement, we distilled consistency, coordination, integration, and alignment (i.e., coherence) as one of the essential beams supporting the correlates of highly productive schools (Author, 1992). This conclusion has been affirmed on a regular basis over the last 20 years (Barnes, Camburn, Sanders, & Sebastian, 2010; Bryk et al., 2010; Desimone, 2002). More importantly, analysts peering in on successful practice have unearthed the dimensions or essential aspects of coherence (Author, 2013a; Bryk et al., 2010; Goldenberg, 2004):

- integration within each component of school improvement work
- alignment across subject areas (e.g., a single point of view about writing across all academic domains)
- integration between and among components of the work (e.g., between mission/goals and professional development) or what Goldenberg (2004, p. 35) calls "several factors working in concert"
- coordinating the four pieces of the instructional program—standards, instruction, curriculum, and assessment
- working as a collective rather than as a discrete set of individual actors, what Bryk and associates (2010, p. 217) refer to as engaging "collective social capacity"
- abandoning practices and policies that get in the way of improvement, that foster fragmentation and overload
- keeping the core issues at the center, maintaining a ferocious focus on what counts
- shaping influences from beyond the organization (e.g., the state, the community) to fit the school context and goals
- cascading improvement efforts and values across organizational levels (e.g., district-schoolclassroom), not isolating them to a single area
- employing resources in an integrated manner, especially personnel
- getting organizational policies, structures, operating systems to operate in tandem and in mutually reinforcing ways (e.g., around time usage)
- building redundancy into improvement work
- aligning the formal and informal aspects of the organization
- filtering discordant messages and demands
- shaping the sensemaking frames that hold the high ground in the school
- linking short and long-term perspectives
- thoroughly compressing variability in the academic program and the school culture
- creating integration between school and work

We close our discussion of alignment and coordination with an important reminder. At the school level, it is the principal who is the prime actor in the coherence narrative, the one who wields the tools to forge integration (Author, 1992; Bryk et al., 2010). For a variety of reasons, coherence

is not a natural state in schools. Things are more likely to pull apart than cohere. Alignment, integration, and cohesion require a strong hand (Csikszentmihalyi & Larson, 1984; Goldenberg, 2004).

<u>Cautions: Costs and Consequences</u> For policy makers and practitioners to decide what interventions to support and implement, they must consider costs. (Rumberger, 2011, p. 232)

Some important guidance in the area of school improvement attends to "costs." One guideline reminds us that the reforms that have the greatest power to drive improvement tend to be the most costly too (Hattie, 2009). At the same time, because these costs often do not require new outlays of funds (e.g., people already on the payroll are shifted to new responsibilities) these costs often go uncounted (Hattie, 2009). Third, reliance on additional external resources generally does not work well for long-term improvements (Curry, 2008; Stoll et al., 2006). Finally, it is necessary that benefits not be the sole criterion of impact (Levin, Belfield, Muenning, & Rouse, 2007). The educational community needs to remember that interventions have both benefits and costs. And while it is often difficult to isolate the impact of particular interventions (Thompson, 2002), "Considerably more effort than is now the norm needs to be devoted to assessing both of these dimensions of reform efforts and trying to determine the ratio between the two, to determine where efforts are most cost effective" (Barton, 2003, p. 37).

We also have discovered that it is difficult to predict the exact consequences of improvement efforts (Author, 2010a; Newmann, 1992). As reported earlier, the fact that the school improvement road is bumpy, reciprocal, non-linear, and jumbled makes this nearly inevitable. We also know now that unintended consequences, both good and bad, find their way into school improvement endeavors (Blumenfield et al., 2000; Fullan & Ballew, 2001; Scanlan & Lopez, 2012), what Leithwood (2008, p. 18) describes as "collateral outcomes." One message for policy makers and school leaders is that they need to spend some time working on these consequences. The unplanned for can often be foreshadowed with some effort and insight. Another message is that educators need to be prepared to deal with these consequences, both in advance and after they arrive on the scene (Author, 2013a).

# **Conclusion**

Most of the work in the area of school improvement by policy makers, researchers, developers, and practitioners, focuses on the content of good schools. This is quite natural and has produced robust sets of elements or ingredients for schools where all students reach ambitious targets of performance. At the same time, our research over the last 30 years leads us to conclude that there are powerful conditions and supports that are essential to make the factors function well. These conditions are often found deeply embedded in studies of school improvement and are ribboned across the stories. In this article, we pulled these threads onto center stage, highlighting three of the most critical chains across the correlates: collective, multifaceted work; context; and coherence. We began and ended our analysis with guidelines and cautions to help as we attend to these essential supports in the school improvement narrative.

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