FRAMING SCHOOL IMPROVEMENT AS DEUTERO LEARNING: THE ROAD LESS TRAVELLED

Abstract

This article looks at various forms school improvement can take, e.g., single-loop, double-loop, and deutero learning, and posits that mechanistic views of, and approaches to, school improvement are not likely to produce optimal results. It then explores the potential benefits of more organic views and approaches, focusing on the development of learning organizations capable of incorporating ongoing improvement efforts into their culture and practices.

As Davidovich, Nikolay, Laugerman, and Commodore (2010) noted, "These times call for our systems to become different, as well as better" (p. 2). For the past three decades, schools have constantly been challenged to improve or to reform. However, many, if not most, efforts to effect meaningful changes in schools, to have those changes become an enduring part of that school's culture and practices, and to diffuse those changes to other schools have been unsuccessful (Datnow, Hubbard, & Mehan, 2002; Fink, 2000; Hargreaves & Fink, 2000; Sarason, 1996).

This article looks at various forms school improvement can take and posits that mechanistic views of, and approaches to, school improvement are not likely to produce optimal results. It then explores the potential benefits of more organic views and approaches, focusing on the development of learning organizations capable of incorporating ongoing improvement efforts into their culture and practices.

Mechanistic vs. Organic Views of Schools

Burns and Stalker (2001) described mechanistic and organic as the two polar extremities of a continuum of views on organizations. They described mechanistic systems as having a specialized differentiation of functional tasks. In such systems, emphasis is given to precise definitions of rights and responsibilities. Governance is achieved through hierarchical control and hierarchical communication structures.

Schools have often been viewed as almost stereotypical mechanistic systems. The principal represents the apex of the hierarchy, with directions flowing down through assistant principals, department or grade level chairmen, teachers, and finally to students. Teachers tend to be isolated within their own classroom, having little meaningful contact with their peers or administrators other than at formal meetings.

Burns and Stalker (2001) contrasted these systems with organic systems, which they declared to be more suited to changing conditions and fresh problems. In such systems, individual tasks are subject to continual redefinition and adjustment. Communications are multi-directional and networked. Leaders provide information and advice rather than instructions and decisions. Individual members are viewed as resources to the organization rather than as occupying set roles within that organization. Such schools do exist, but they are rare. They are typically small elementary schools, or even small unit (K–12) schools in rural areas, where the teachers know each other well on both a professional and personal basis and interact frequently, without implied barriers of authority or subject matter or grade level differences. These schools operate more as communities than as institutions.

Wheatley and Kellner-Rogers (1996) explored this organic conceptualization in greater depth. They began with the premise that the universe is a living, experimenting experience, but that life seeks to organize around an identity, a self (p. 3). Consequently, it does not need humans to organize it, as would be the case in mechanical systems. Because of the nature of this self-organization process, there are no "windows of opportunity" that must be seized; the possibilities are endless. However, this self-organization is a messy process that eventually figures out "what works," not "what's right" (p. 13). "Systems emerge as individuals decide how they can live together. From such relationships, a new entity arises with new capacities and increased stability" (p. 33). These relationships depend on shared, multi-directional learning and on mutual trust. The self-organized system is based on relationships, behaviors, beliefs, and methods of accomplishing work. Other authors (e.g., Fullan, 1991; Lindahl, 2006; Martin, 2002, Schein, 1992; Schoen & Teddlie, 2008) refer to this as organizational culture. The culture cannot be replaced; it organizes itself. It becomes healthier as it opens to include diversity; within the boundaries of shared values, freedom promotes strength.

Cultures vary greatly from school to school. In some schools, athletes are granted high status by students, parents, teachers, administrators, and the community. In other schools, such status accrues to the band or choir, or even to academic excellence. Some schools' cultures focus on strict conformance to behavioral expectations, especially in large urban high schools, whereas others are more like a convivial, supporting family, especially in small elementary schools. In some schools, teachers work hard and long to provide students with the best educational experience possible; in others, many teachers appear to be merely meeting the minimum expectations specified in the union contract. Some principals know every child and teacher quite well, address them by their names, and interact with them very frequently, usually in informal communications. In other schools, communications between the principal and either teachers or students is typically formal and highly focused.

Clearly, schools have both mechanistic and organic qualities operating simultaneously. On one hand, they are characterized by a myriad of policies which regulate the lives of students and staff alike. Roles are generally quite clear, with those of the principal often being significantly different from those of the teacher. Typically, much of the communication is hierarchical. On the other hand, schools also have organic elements. They are comprised primarily of human beings, who interact, build a shared culture, and determine the fate of proposed changes. Among schools, it is the extent to which the internal emphasis is on the mechanistic or the organic elements which differentiates their cultures and their propensity to successfully integrate changes. A brief examination of the various configurations such changes can take may help to illustrate the importance that the mechanistic or organic characteristics of schools play in their school improvement processes.

Single-Loop, Double-Loop, and Deutero Learning

School improvement assumes many shapes and sizes. On its smallest scale (referring to the complexity of the planning and implementation processes, but not necessarily to the impact), it may be as routine as choosing new textbooks or selecting new teachers. Schools generally have long established, well practiced mechanisms or routines in place to effect these changes (Beach & Lindahl, 2004). For example, in school or district-level textbook selection, a committee is put into place, with the composition of that committee essentially pre-determined by the subject matter and grade level of the textbook and by the seniority of the teachers. The district may already have a pre-determined set of evaluation standards and an accompanying form to record judgments. Such a decision is generally relatively easy to make, yet it can have profound repercussions on students and teachers for up to a decade. Teacher selection is another highly critical change within a school, as that teacher will have the greatest direct effect of any variable on his or her students. However, schools generally use routinized decision-making procedures for making this change. In all too many cases, new teachers are selected en masse by a committee (or even an individual) at the district office and assigned to schools without input from those schools. In other cases, the principal and a few selected teachers interview candidates sent from the district office and select among them. With so few teacher dismissals occurring in this country, this decision may have direct effects on students and on the school for several decades.

On a slightly larger scale, schools address first-order changes, which generally consist of doing more or less of what the school is already doing (Cuban, 1988), e.g., implementing double blocks of classes for remedial math or language arts or adding an advisory program into the middle school. These changes do not threaten many established visions or values, are easily reversed, and require only mechanistic planning, e.g., in-

cremental planning (Lindblom, 1959). Schlechty (2005) referred to these as sustaining innovations. Typically the same classroom materials and instructional strategies are maintained when adding in a double-block class. Students perceive little difference other than sitting longer in the same seat, with the same teacher. Teachers may feel that they now have more time for coaching and for providing feedback to individual students, in addition to their traditional direct instruction and guided practice, but this does not generally call for great extension of their knowledge and skills. Although new materials and approaches may be needed to implement an advisory period, these are generally designed or chosen by an "expert" and assigned to regular classroom teachers to implement, generally with relatively little accountability.

However, both of the aforementioned forms of school improvement occasion only single-loop learning (Argyris & Schön, 1996); the organization learns to solve only that particular problem in that particular context. Marzano, Waters, and McNulty (2005) defined single-loop learning as occurring "when an organization approaches a problem from the perspective of strategies that have succeeded in the past" (p. 66). Single-loop learning involves looking for strategies related to the key variables (Argyris & Schön, 1996).

Most large-scale school improvement requires second-order changes, which involve the modification of norms, procedures, policies, objectives, values, and/or visions (Cuban, 1988). Schlechty (2005) referred to these as disruptive innovations. They are highly complex, non-linear, systemic processes, generally episodic in nature (Beach & Lindahl, 2004, 2007). They require elaborate planning and careful implementation, guided by ongoing cybernetic feedback. They generally involve rational planning approaches, which examine and select from alternative problem definitions and solutions (Benveniste, 1989; Brieve, Johnston, & Young, 1958; Kaufman, 1972; Simon, 1955, 1957, 1982, 1997). They are often implemented due to external mandates or pressures. Because they are often perceived as threatening by organizational members (Evans, 2001; Hall & Hord, 2006), they often fail to produce the desired results (Sarason, 1996; Schlechty, 2005). They do, however, call for, and sometimes occasion, double-loop learning, in which the organization and its members acquire new knowledge, skills, dispositions, and perspectives. They also learn to make better sense of their environments, both internal and external, which should facilitate future improvement processes. Double-loop learning questions the validity of key variables and then builds strategies (Argyris & Schön, 1996). Marzano et al. (2005) defined double-loop learning as occurring "when no existing strategy suffices to solve a given problem. In these situations, the problem must be conceptualized differently or new strategies must be conceived" (p. 67). Examples of this form of change might include individualized education plans, on-line instruction, writing across the curriculum, block scheduling, or inclusion of chil-

dren with special needs into all classrooms. These second-order change efforts dominate the literature on school improvement, often because they are so resource intensive and because they are prone to eventual failure or are unable to be transported to other school environments.

Even decades later, the term new math evokes wry smiles among educators who attempted this second-order change in their math classes. It was not a sustaining innovation, but a disruptive innovation. It did not call for adding a new chapter or two of material to existing course materials; it required an almost total re-conceptualization of what students should learn about math and how that should best be taught. Its impact far exceeded the school; it clashed with the major standardized testing companies' costly banks of accumulated, valid, and reliable test items. More importantly it completely challenged the knowledge and skill levels of most parents, making it impossible for them to verify their children's homework, much less provide needed assistance.

Today, distance education falls into this second-order change category. It calls for a re-conceptualization of what schools and classrooms are, whether learning and instruction are synchronous or asynchronous, what the role of the teacher is, and what student responsibilities are. For teachers, it requires extensive access to technology and the ability to integrate that technology effectively into instruction, and, in many cases, even the ability to troubleshoot the inevitable technological glitches that arise. It requires extensive staff development and has ramifications for teacher preparation, certification, compensation, and evaluation.

However, a third level of learning exists, deutero learning. This refers to organizations which have identified appropriate ways to effect first- and second-order changes and have integrated, and continue to update, that learning into their organizational behavior and culture (Argyris & Schön, 1996). These are what Senge (1990) referred to as learning organizations. The focus of the remainder of this article is on this last form of school improvement, which has received relatively little direct attention in the school improvement knowledge base, but for which considerable related literature exists in the fields of leadership, organizational administration, and educational planning.

How Do Deutero Learning School Improvement Processes Function?

Davidovich et al. (2010) warned that the most disadvantaged individuals of the current century will not be those who are illiterate, but those who cannot learn, unlearn, and relearn. The same applies to organizations; they, too, must be ready and able to learn, unlearn, and relearn.

George Shultz (2010), former U. S. Secretary of Labor, of the Treasury, and of State, discussed the massive, positive reaction of the U. S. to the Soviets launching Sputnik in 1957. He wrote: "Sometimes a big, unpleasant surprise—a shock such as Sputnik—does the job…. We have to ask,

however: Why do we need a shock to prod us into doing obvious things? Why can't we take clear and resolute action before the shock?" (p. 29).

Certainly, there are major surprises or shocks that affect school improvement processes, e.g., the high stakes testing requirements of the No Child Left Behind Act of 2001 (NCLB). They are inescapable and force schools into immediate, episodic, planned (hopefully) school improvement processes that can have pronounced effects on the culture and behaviors of the school. Ravitch (2010), once a strong standardized testing advocate, has reconsidered her stance and voices a continuing alarm about the consequences of over-reliance on these exams. Although the use of testing for diagnosing individual students' strengths and weaknesses is clearly of potential benefit, its use for summative evaluation of teachers and schools raises concerns. Because of the pressure to avoid the school, or now even the individual teacher, being excoriated in the press for low group test scores, many teachers clearly do "teach to the test." Portions of the curriculum which might capture students' imaginations and spark considerable learning are ignored in favor of those more likely to appear on the test. Student learning is measured in ways that mimic its measurement on the standardized tests rather than in more authentic ways that might contribute to lifelong learning. Teachers in subject areas that are not covered on the standardized tests, e.g., art, music, or physical education, may lose their jobs or become second-class members of their school. The effects of such changes on many school cultures are immense.

However, when such changes are externally imposed and enforced, they may not be well matched to the existing culture, behaviors, systems, or values of the school. In such cases, they typically endure only as long as sufficient external pressure is maintained. As Lewin's force field theory (1951, 1997) predicted, when the driving forces diminish, the organization snaps back to its previous values and behaviors.

Such externally imposed changes arise from highly mechanistic view of schools as organizations, violating Wheatley and Kellner-Rogers' (1996) more organic conceptualization of them. As Senge, Cambron-McCabe, Lucas, Smith, Dutton, and Kleiner (2000) noted: "Schools are not 'broken' and in need of fixing. They are a social institution under stress that needs to evolve" (pp. 51-52). Wheatley and Kellner-Rogers (1996) contended that because of their natural tendency to self-organize around their identity (culture), external interventions are counter-productive.

Under section 1003(g) of Title I of Elementary and Secondary Act of 1965, as reauthorized by the No Child Left Behind Act of 2001, Title I schools which persistently under-achieve on standardized exams may be eligible for School Improvement Grants, but must choose from one of the following four school intervention models:

> *Turnaround model*—in which the district must replace the principal, evaluate the current staff, create financial incentives, incorporate on-going professional development, and adopt a new governance structure.

Restart model—in which the district closes then reopens the schools as either a charter school or an educational management organization.

School closure model—in which the district closes the school and enrolls its students into higher achieving public schools in reasonable proximity.

Transformational model—in which the district replaces the principal, analyzes student performance data, drop-out, attendance, and discipline data, implements research-based instructional programs, creates incentive plans for school personnel, and provides job-embedded professional development.

On one hand the first two models may be interpreted as drastic attempts to eliminate less-than-functional school cultures and climates. On the other hand, they virtually guarantee that the school will enter into what Wheatley and Kellner-Rogers referred to as chaos. It takes many years to build a functional school culture; dismantling a school's faculty and administration may remove some toxicity but does little to ensure a healthier future.

In accordance with the organic view of schools, Davidovich et al. (2010) discussed the four key elements of adaptive change: disturbance, identity, information, and order. They further challenged leaders of deutero learning organizations to embrace dissonance, create context, change the field of perception, and let ideas collide. For change to be initiated, there must be a disturbance, and leaders within the school must embrace that disturbance. That disturbance may be an external mandate like NCLB or a change in the internal conditions of the school, e.g., a change in student population served. It may come from new knowledge which becomes available, e.g., new instructional or curricular approaches. However, as Davidovich et al. cautioned, not all disturbances should be embraced: "Leaders need to be able to protect against dissonance yet embrace it…. Hold the system together while you help to break it apart" (p. 113).

To know which disturbances should be embraced and which should be protected against, it is essential for the leader to know the identity of the organization (its core values) and to create a context in which those values may thrive and be shared. The closer a proposed change fits to the school's existing identity, the easier it will be to implement and institutionalize. In order for the school's members to embrace the proposed changes and to change their field of perception, they need valid, sufficient, understandable information on those changes. This information must be shared multi-directionally, not merely hierarchically. Finally, they must be encouraged to let the new ideas collide with the existing values and practices to see what order naturally arises (as opposed to being imposed). The more freely these two sets of values and practices are allowed to collide, the more solidly the resultant order will be accepted.

Schools with healthy, deutero learning cultures allow new ideas to collide with existing (or past) practices. They do not immediately put

up barriers or deny the possibility that changes can be positive. For example, when a recommendation (or external pressure) arises to implement a manipulatives-based math curriculum in the elementary school, deutero learning schools must examine what it might offer to their students. What specific conceptual weaknesses have the students (or specific groups of those students) been demonstrating on both standardized and teacher-developed assessments? What are students' affective reactions to various instructional strategies in math? What existing parts of the curriculum would need to be compromised in order to accommodate the introduction of manipulatives, and how indispensable are these?

Such schools would then examine how the proposed innovation would interact with their school's identity. "Who are we, as a school, and to what extent would manipulatives-based math instruction support that identity?" If the school deeply views itself as student-centered, with high academic expectations for each child and with a genuine commitment that learning should be an enjoyable experience, how would working with math manipulatives compare to computer-assisted math learning, traditional instruction-guided practice-individual practice, or other instructional approaches? If the school's identity includes a focus on peer-assisted learning, to what extent could manipulatives be incorporated into existing cooperative learning formats?

Deutero learning schools would then look to the information aspects of the proposed change. How do other teachers perceive the potentials for improvement (or decline)? What new knowledge, skills, or dispositions would be required and how might they be acquired? What materials and other resources might be needed and how might they be acquired? To what extent is the school so invested in making other changes that one more at this time might jeopardize the energy and focus need to help the others be successful?

Finally, deutero learning schools would address the issue of order in an organic rather than mechanistic manner. They would not pre-determine exactly how manipulative math would eventually be represented in the curriculum and instruction. Instead, they would commit to experimenting with it, to sharing their experiences (including both successes and failures), and to reflecting on it collectively. They would view manipulative math as a journey, without a specific destination. The pleasure or success of the journey, including a major emphasis on student learning, would determine the direction and length of that journey.

One precursor to deutero learning school improvement processes was developmental, or goal-free, planning (Clark, 1981; Clark, Lotto, & Astuto, 1989; McCaskey, 1974). This was a radical departure from the typical rational planning models of the 1960s and 1970s. This planning approach examines the shared values and visions of the school community. It recognizes that each individual has his or her own, personal vision and set of values and that only these values and visions command that individual's

commitment. Values or visions espoused by the organization but not truly held by the individual may engender compliance, but that compliance will fade as the situation changes, e.g., a change in leadership or a weakening of external pressure. Once the shared values and vision are discerned, they become the platform for establishing directions for the organization; these directions are fall less specific than traditional goals. Then each individual is able to, and expected to, contribute to the organization's progress in these directions in his or her own unique way. This concept matches very closely with Wheatley and Kellner-Rogers' (1996) concept of freedom within shared values.

A manifestation of deutero learning processes was explicated by Senge (1990), who examined learning organizations. Senge discussed five essential characteristics which must exist, in balance, in such organizations: systems thinking (an understanding of interrelationships), personal mastery (clarifying what really matters and acting from a creative rather than reactive perspective), unearthing the existing mental models, shared vision (principles and guiding practices), and team learning (dialogue, thinking together, recognizing productive and non-productive interactions and behavior patterns). Similarly, Sergiovanni (2001) concluded that organizational learning is a function of the organization's ability to perceive, process information, reason, be innovative, and be motivated (p. 111). The focus of such organizations is on understanding dynamic complexity, not detail complexity (Senge, 1990, p. 72).

The emphasis is on continuous development of the culture, i.e., shared values and shared vision, at the same time that innovations are being implemented which are largely congruent with those shared values and visions. It is a focus on ongoing improvement rather than on mastery or episodic change (Schlechty, 2005). As solutions to emerging challenges are sought, preference is given to those alternatives which are least potentially disruptive (Schlechty, 2005), to the organizational culture. This lends itself to smoother implementation and incremental change, rather than large-scale change. Sergiovanni (2001) noted that in such environments, trial and error is permitted, even encouraged, if focused and not random (p. 12). This helps to turn potentially disruptive innovations into sustaining innovations, which build on the existing systems of power, authority, rewards, and sanctions. The end goal is to build a culturally tight, managerially loose school (Sergiovanni, p. 6), a community of responsibility. Schlechty (2005) envisioned schools that moved from a focus on compliance and attendance to a focus on attention and direction (p. 145).

Admittedly, this approach to school improvement does not lead to quantum growth in the short term; it is the tortoise to the second-order change hare. However, it addresses Fullan's (2001) concern: "In schools, for example, the main problem is not the absence of innovations but the presence of too many disconnected, episodic, piecemeal, superficially adorned projects" (p. 109).

At times, however, disruptive innovations are prescribed and mandated by external authorities. In those circumstances, a learning organization is equipped to examine and understand the values and vision inherent in the changes, as well as its own values and vision. Rather than summarily rejecting these innovations because they do not mesh well with the existing culture, such organizations are capable of sincerely questioning the merits of their own culture and of proposing cultural adaptation, if warranted.

Framing School Improvement as Deutero Learning

In order for school stakeholders to understand how proposed changes fit (or fail to fit) with the existing identity of the school, the framing of those proposed changes is crucial. Moreover, that framing must be collective, not top-down. Framing (Wikipedia, 2010) refers to interpreting a situation in a particular manner; it is a social construction of a phenomenon; therefore, it is subjective and selective.

Snow and Benford (1988) identified three forms of framing: diagnostic framing, prognostic framing, and motivational framing. Diagnostic framing is used to identify the problem and affix blame. Prognostic framing refers to the preferred solutions or approaches to addressing the problem. Motivational framing is used to generate enthusiasm for action. For all three forms of framing, it is essential that the frame link the issue to genuine core beliefs or values shared within the organization. This must be genuine, not contrived, or participants will reject the framed issue. Furthermore, the school must be open to allowing its current identify to collide with the proposed changes so that the current identify may be continually examined and questioned. The school must be open to modifying its identify if the information gained through such collisions recommends such a change.

Returning to the example of implementing a manipulatives-based math program, the diagnostic framing must determine that this approach could potentially improve specific diagnosed weaknesses in students' math performance or a perceived lack of enthusiasm for current math instruction. Prognostic framing would call for the teachers to have extensive voice in determining if manipulative math is an, or the most, appropriate solution to these problems. It also calls for them to have a strong voice in how and when staff development occurs and how and when manipulative math is introduced into classrooms. Finally, motivational framing would be used to get teachers and students excited about manipulatives-based math. Can it be fun for both students and teachers? Will it build upon their current knowledge and skills rather than requiring the acquisition of an entirely new set? Will there be ample support and assistance? Will efforts to implement the new program be recognized positively rather than punitively in their evaluations? Is the principal a strong supporter, without imposing the new math approach?

In the specific case of framing substantive changes for school improvement, school leaders and stakeholders must frame the proposed changes so that they appear to mesh with the school's existing culture, beliefs, and practices. The more that they are perceived as congruent with the school's values and behaviors, the less resistance the school will offer to their implementation and the more likely the changes are to be institutionalized.

In regard to deutero learning organizations, the framing is crucial. Changes must be framed as contributing to existing directions and efforts, rather than as representing new directions. They must be framed as sustaining innovations, not disturbances (Schlechty, 2005). In essence, although the organization gains capacity for future changes and strengthens its identity (deutero learning), changes are framed more as single-loop than double-loop learning (Argyris & Schön, 1996), and first rather than second-order changes (Cuban, 1988).

Why Is Deutero Learning Relatively Uncommon in School Improvement?

One reason why deutero learning approaches to school improvement are not more common is that they require a long-term perspective. Most changes sought by school improvement processes turn out to be transitory, yet they generally are called for with a sense of extreme urgency and with unrealistically brief timelines for planning and implementation. However, deutero learning calls for the school to continually build history, knowledge, skills, perspectives, and culture. This is a process requiring years, if not decades.

Another reason that deutero learning is not a common form of school improvement is that it requires an exceptional form of leadership. Most successful second-order change processes are led by heroic, vital leaders. As Calabrese (2002) noted, strong authoritarian leaders get results; however, Calabrese went on to admit that these results often do not last. When the leader leaves, so do the changes (p. 1; see also Fullan, 2001, pp. 1–2). Deutero learning, however, calls for the leader to create an organizational culture in which members feel safe to question the organization's beliefs and practices. Paraphrasing Lao-Tzu, Senge (1990) summed up the leadership needed for deutero learning organizations: "The great leader is he who the people say, 'We did it ourselves'" (p. 341). Sergiovanni (2001) added: "Leadership is about helping people to understand the problems they face, with helping people to get a handle on how to manage their problems, and even with learning to live with problems" (p. ix). As Heifetz (1994) noted, such organizations should not look for saviors, but for leaders who will challenge them to face problems for which there are no simple solutions, problems which require them to learn in new ways (p. 21). Fullan (2001) called for a leadership framework built on "moral

purpose, understanding change, relationship building, knowledge creation and sharing, and coherence making" (p. 4). Such leaders are in short supply in schools.

Yet another reason why deutero learning is not common is that it depends on a strong, stable, healthy, school culture. Although its focus is on building such a culture and of integrating new innovations into that culture, it functions best when there is a positive cultural foundation upon which to build.

There is also a danger to deutero learning. The stronger the shared culture of an organization becomes, the more resilient that organization becomes to threats to that culture. After due reflection and assessment, schools with a strong shared vision and agreed upon set of values emphatically reject changes which conflict with those values or vision. In schools with weaker cultures, external pressure and strong (probably authoritarian) leadership can impose changes, at least in the short term. However, in deutero learning schools, faculty and administration unite, in an informed, reflective manner, against disruptive change that they do not judge to be in the best interests of the school or of its students. External authorities attempting to impose changes resent such organized resistance, perhaps with punitive consequences.

Conclusions

School improvement efforts can take many different forms. The optimal form is that of deutero learning, in which changes are framed as extensions of ongoing efforts and existing values. As such changes are planned and implemented, they help to solidify the core identity of the school, making it more capable of absorbing future changes without disruption. Also, the more solid the identity of the school, the easier it is for the school to discern the extent to which proposed changes are or are not congruent with its core values and practices. This, in turn, determines the extent to which the school should embrace or resist the proposed changes.

Is deutero learning feasible for all schools? Unfortunately, no. It can only occur in healthy school cultures with excellent, open leaders and high rates of participation by all organization members. It requires extended time frames of relative stability, both of the organization and of its personnel. However, when those conditions are present, it is an approach to school improvement well worth pursuing.

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