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Internalizing Change Capacity in Secondary Schools Through Organizational Change

In this article we focus on understanding the meaning of change capacity in secondary schools. Our definition of change capacity focuses on organizational dimensions. We review evidence from a longitudinal study of change in nine secondary schools in a single district to argue that change capacity consists of three attributes: liberation from structures that inhibit innovation (in our case breaking the mold of subject department organizational structures), honoring dissonance, and forging new relationships. We identify the conditions that contribute to the development of change capacity in secondary schools by examining the contributors to the emergence of each element.

Dans cet article, les auteurs se penchent sur le sens de la capacité pour le changement dans les écoles secondaires. La définition qu'ils en donnent s'appuie sur des dimensions organisationnelles. Ils évoquent les résultats d'une étude longitudinale de neuf écoles secondaires situées dans un seul district comme preuve que la capacité pour le changement consiste en trois éléments: le fait d'outrepasser les structures qui limitent l'innovation (dans le présent cas, il s'agissait de passer au-delà des contraintes organisationnelles imposées par la structure départementale basée sur les matières-sujets), le respect de la dissonance et l'établissement de nouveaux rapports. En étudiant les facteurs qui contribuent à la naissance de chacun de ces éléments, les auteurs expliquent par le fait même les conditions qui encouragent le développement de la capacité pour le changement dans les écoles secondaires.

Internalizing change capacity has become a mantra for educational organizations in North America and also for scholars interested in educational change and reform. Certainly individuals facilitating and studying school change have repeatedly noted that schools must be more responsive to the changes emanating from the milieu, and school staffs must become more conversant with understanding and facilitating constant change (Darling-Hammond, 1995; Elmore & Burney, 1998; Fullan, 1993, 1999). Yet the conceptualization of change capacity, especially in secondary schools, remains a somewhat fuzzy and amorphous concept.

Since 1994 we have been working with and studying the efforts of all secondary schools in one Ontario school district as the school staffs have

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engaged in the complex change of revising their organizational structures away from the typical subject departmental structure.¹ Throughout the many research reports and published articles (Hannay & Ross, 1996, 1997a, 1999a; Hannay & Smeltzer Erb, 2000, 2001), we have demonstrated that the school staffs enhanced their change capacity. Yet we have made these assertions without stopping to unpack what the term *change capacity* means in terms of secondary school organizational change. This article focuses on understanding the meaning of change capacity in secondary schools, as well as the role played by organizational change in the process. We begin with a brief account of the place of change capacity in the school improvement literature and provide some background information on our illustrative case. We then provide evidence from the case to argue that change capacity includes three essential attributes. In concluding we identify key factors that contribute to the development of change capacity and discuss the implications of our research for school improvement.

Change Capacity

Consensus has not been reached on a definition of capacity-building. It was first conceptualized as a deficit reduction effort focused on disadvantaged student populations in underfunded institutions (Doherty & Abernathy, 1998). In the current policy climate, virtually all educational institutions are represented as needy. For this reason, we propose a broad definition, similar to that of Massell (1998), in which we define capacity-building as the development of the ability of schools and districts to attain high standards and accommodate changing expectations.

The exponential increase in expectations for schools and increased concern about their ability to meet these expectations spawned a variety of improvement strategies that Rowan (1990) classified as control or commitment approaches. There is no convincing evidence that either is more efficacious than the other in improving student performance. In control initiatives, policy-makers develop demanding achievement standards, institute monitoring systems to ensure compliance, and specify demanding new duties for teachers. For example, in 1997 the Ontario government redefined the minimally accepted achievement standard from level 2 to level 3 on the 4-point provincial rubric, thereby lowering the student success rate from 90% to 50%. At the same time Ontario expanded mandated student testing to new grades and issued curriculum guides that increased the scope and difficulty of course content. In contrast, the commitment approach is characterized by the development of innovative working arrangements to increase teacher collegiality, participation in school-wide decision-making, and commitment to the profession. A key element of the commitment approach is the development of the capacity of the school to respond to new instructional challenges, learn from its experiences, and become proactive in readiness for change.

Century (1999) identified four domains of capacity that might be developed in educational institutions: human capacity, organizational capacity, structural capacity, and material capacity. Our focus has been on organizational and structural capacity in the context of districts experiencing diminishing financial entitlements and reduced control over their resources.

Site-based management (SBM) can be a key element in capacity-building. Its meaning varies from liberating principals from superintendent control (administrator SBM), to teachers sharing more decisions with principals (democratic SBM), to increased influence of parents and other noneducator community members over school decision-making (community SBM, Leithwood, 1998). There is little evidence about the effect of SBM on instructional practice or on student achievement. The case study from which the data for this article are taken adopted a democratic SBM. This approach is most effective when there is enabling leadership at the site and district levels, training is provided to teachers on new roles, an explicit framework for allocating decisions to responsible agents is developed, criteria for judging progress are available, and sufficient time and financial resources are provided (David, 1989, 1995; Prestine, 1998; Wagstaff, 1995).

Background to the Case

In 1994 we began working with the Kawartha Pine Ridge District School Board² first in a field development capacity, at their request, to report on the findings from our earlier research on the role of the department head in change. The earlier studies in the program of research began with the premise that department heads were the natural role through which to facilitate secondary school change, but based on the data we eventually concluded that the subject-based organizational structure curtailed significant and sustained change (Hannay, 1992; Hannay & Bissegger, 1994; Hannay, & Schmalz, 1995). All these longitudinal studies, conducted in five Ontario school boards, involved secondary school staffs faced with implementing cross-disciplinary curriculum and included a change facilitation professional development program for department heads. However, a meta-analysis of these studies (Hannay, Smeltzer Erb, & Ross, 2001a) documented that the subject-based organizational structure contributed to the lack of policy implementation, as the department heads were unable to sustain innovation that crossed subject boundaries. Given our established program of research, we willingly accepted the invitation of the Kawartha Pine Ridge District School Board to examine the efforts of their secondary schools in developing new organizational structures.

The research reported in this article began in 1994 when Kawartha Pine Ridge District School Board empowered³ and required the staffs of its nine secondary schools to revise their organizational models away from a traditional subject departmental structure. Contractually, in partnership with the local teacher union affiliate, department heads were replaced by facilitators as the formal Positions of Responsibility (POR). The schools were encouraged to develop site-based models with the caveats that the status quo was not acceptable and that the context-specific models were to be program-based and revised annually.

From the initiation of the restructuring process, the district recognized that schools would not create the same organizational structure because of their differing contexts. The staffs created organizational positions that ranged from those still based on subjects to whole-school function positions. The most common function position involved alternative student assessment methods across the whole school. Generally over the six-year period of the research study, schools gradually developed function-based models while retaining

some subject connections. The organizational models were modified annually as school staffs reviewed their model and retained or created new positions. By 1999 no school remained organized or was operated as it had been in 1994.

Methods

Both quantitative and qualitative data were collected since 1995. In order to gain a deeper understanding of the effects of the model development process on the operation of the school and the new roles created, we have conducted in-depth interviews annually since 1995. Although numbers varied from year to year, the annual sample included all the individuals appointed to the new POR positions in nine schools. When possible, we interviewed the same individuals in each of the four years of data collection although transfers or retirements necessitated some changes. When appropriate, in order to broaden the research base, we conducted interviews with other individuals on the school-based restructuring committees, senior school district administrators, and school principals. In each case all interviews were audiotaped and transcribed verbatim.

In addition, to understand the impact of the organizational changes on the whole school, we collected survey data annually from all secondary school teachers (return rate of approximately 85% system-wide). The survey categories were developed through a consensus-reaching process with the district Steering Committee, principals, and panels of teachers. Fifty Likert items that measured six dimensions of school climate were adapted from earlier studies (especially Leithwood & Aitken, 1995; Rosenholtz, 1989). The survey results from most of the secondary teachers in the school were used to confirm and extend the data collected in the qualitative interviews.

Data analysis involved identifying the recurring themes, and the qualitative data analysis program NUD:IST was employed to create data displays for each theme and for each school. Through a constant comparative method applied to analyze the data collected both annually and then across the longitudinal data, we sought to understand the process being experienced in the schools involved and the school district.

In this article, we report data primarily from the fifth interview round (collected at the end of the fourth year of implementation of the school-based models). However, when appropriate, we employ data collected earlier in this longitudinal study.

Findings

Secondary schools have become notorious for preventing or bastardizing reform initiatives. Certainly the size of most secondary schools (Gregory, 2000; Hannay & Ross, 1997a; Hargreaves, Earl, & Ryan, 1996; Kemper & Teddlie, 2000; Monk, 1992; Raywid, 1999; Sebring, Byrk, & Easton, 1995), the role of subject departmental structures in both curtailing change (Brown & Rutherford, 1998; Dellar, 1996) and in balkanizing (Hargreaves, 1994; Ross, Cousins, Gadalla, & Hannay, 1999) secondary schools contribute to change inertia. Not surprisingly, we were intrigued by the change journeys undertaken in the studied schools. These journeys proceeded without a prescribed map and challenged the traditional organization and operation of secondary schools.

By analyzing the data collected over the last four years, we identified aspects that symbolized the existence of change capacity, but also provided insight into how change capacity was enacted in these secondary schools. Through this analysis we identified three mutually reinforcing factors that illuminate change capacity: (a) liberation from structures that inhibit innovation or breaking the mold of the subject-departmental organizational structures; (b) honoring dissonance; and (c) forging new relationships.

Breaking the Mold

Secondary schools have been organized by a subject-based structure in North America for most of the 20th century (Siskin, 1994). This has meant that secondary school teachers have been placed into subject-like groupings for organizational purposes as it was considered that the school was too large an organization to address holistically. The subject-based departmental model was prized by teachers (Hannay & Ross, 1999b) because it characterized teachers as subject specialists (Grossman & Stodolsky, 1995; Hargreaves, 1994; Siskin, 1994; Talbert & McLaughlin, 1992), thereby fostering teacher identity (Grossman & Stodolsky, 1995; Hannay, 1996; McLaughlin & Talbert, 1990; Siskin, 1994); provided a cultural home for teachers (Dellar, 1996; Hannay & Ross, 1999b; Siskin, 1994); and afforded the political means to support teachers in the school and school system.

Subject departments represent homogenous groupings and cultures. Such cultures can narrow the alternatives considered viable and, as Fullan (1999) suggests, these cultures “have little disagreements but they are also less interesting” (p. 22). The subject departmental structure depicts the taken-for-granted and usually unquestioned manner of organizing secondary schools. Yet working in a subject departmental organizational structure suggests that the cross-pollination necessary for innovative approaches that cross disciplinary boundaries can be problematic, and this reduces the possibility of whole-school change (Bennett, 1999). Certainly the past reliance on subject structures as a means of organizing secondary schools has often resulted in images based on the subject as opposed to creating images that challenge that box (Hannay & Ross, 1999b).

Not surprisingly, the initial data collected in 1995 indicated that it was quite problematic for some individuals to consider any alternative means of organizing secondary schools. For example, a participant stated:

The science teacher who’s involved has been told very specifically by his department head that science isn’t changing. Science will be science, will be science, will be science. (Int95: I2)⁴

However, as early as the end of year 1 of the implementation process, it was apparent that some schools were challenging past practices and were developing site-based models that were based on the functions most appropriate for the whole school. By the end of the fourth year of implementation, most schools were considering whole-school innovations. These data indicate that the foundational element for change was the creation by the school staffs of function-based positions (Hannay & Ross, 1997b). In these schools the homogeneous groupings were replaced with flexible organizational models based

on heterogeneous groupings and, as Fullan (1999) suggests, these “cultures risk greater conflict but they also contain stronger seeds of breakthrough” (p. 22).

Two factors seemed to be crucial in breaking the subject departmental mold and creating new organizational mindsets, thus supporting change capacity. First, as per the agreement between the school district and the union, the models were reviewed and revised annually by the respective school staffs. Organizational structures were now perceived by almost all participants as evolving and adapting as noted by a participant:

It's very exciting to be part of an evolving, and I'm not going to say part of change, 'cause it's evolution. To see how, hopefully, it can survive change. We've built something that can adapt. I really believe that the old headship structure could not survive all the change that's coming. It's just, it doesn't create a collegial atmosphere in the same way. I think that's what I get excited about. That I have seen people working together. (Int99: C13)

Second, by the third and fourth year of implementation, most participants perceived that the organizational structure had to reflect school needs as opposed to the structure determining the alternatives considered viable. This was increasingly manifest in the data, which indicated that school goals were determining the organizational positions created, for example:

If assessment and evaluation is one of our goals, then guess what, there's going to be somebody that coordinates that and makes sure that it happens. If teacher mentoring is one of our goals, to get that on line, then there's going to be time set aside so that somebody can look after that. (Int98: E10)

Further school goals became a serious component of organizational change, not an esoteric activity undertaken to please others. A participant reflected on the changes in perceptions:

Three years ago we tried to focus on meaningful, significant, and attainable school goals. And limited school goals so that they were attainable. We tied our POR positions to the school goals. Each year as we revisit them, we look at the school goal and we look at the goals and we look at the position. It's the first time in my career that I've ever remembered what our goals are.... I understand why we're doing them and it's not just 12 pages of gobbledegook. (Int99: G5)

Since 1994 these secondary school staffs gradually broke the subject departmental mold of taken-for-granted assumptions about the natural order for secondary school organizational operations and structures. Function or whole-school positions represented heterogeneous groupings, and this movement not only symbolized change capacity, but provided the means for internalizing continual change capacity. Organizational restructuring through revising school-based models on an annual basis supported change capacity as individuals collectively addressed the common direction for the school and created structures to facilitate such change. Certainly the 1999 data documented that the participants felt confident that their schools could successfully address and implement the changes to secondary schools recently mandated by the Ontario government (Hannay, Smeltzer Erb, & Ross, 2001b).

Honoring Dissonance

The second key piece in understanding change capacity and organizational change was the existence and acceptance of cognitive dissonance. Cognitive dissonance develops when an individual is required to reconcile contradictory attitudes and behaviors. In educational change, cognitive dissonance can become acute when the implementation of the innovation requires individuals to question their own tacit knowledge that is derived from their experiences and from their milieu (Lam, 2000). The resulting dialectical questioning creates cognitive dissonance when the innovation explicitly challenges tacit knowledge, thereby prompting the reconciliation of past practices and current demands. Collaborative professional experience plays a key role in several processes associated with cognitive dissonance that leads to positive outcomes (Ross & Regan, 1993). Professional sharing can contribute to dissonance by bringing tacit beliefs to conscious scrutiny, subjecting them to external appraisal, and surfacing alternatives to one's own practice. In defending their positions through explanation and counterargument, professionals recognize gaps and limitations in their conceptions. Through this collective process, individuals can generate and explore alternatives and thereby reduce the cognitive dissonance.

Challenging tacit knowledge is not only difficult, it creates philosophical tension and cognitive dissonance. For almost all participants in this study, developing new site-based organizational models involved struggling with deeply implicit images and practices. These individuals were products of the homogeneous subject groupings, and such groupings are unlikely to breed cognitive dissonance as members of a subject department often are products of a similar historical and experiential background (Siskin, 1994). Developing alternative organizational models required that individuals become conscious of their implicit understanding of a secondary school in order to question the organizational structure.

For some school staffs the continuing existence of the homogeneous subject departmental structure was not open to question. As a participant in a school with little organizational change in the first three years stated, "People accept things the way they are and run on the assumption that they cannot be changed" (Int97: F3). Although we documented little cognitive dissonance initially in these schools, we also documented few organizational changes.

In our first three years of data collection, we only documented the existence of cognitive dissonance where the school staffs were challenging the homogeneous subject departmental structures and consequently were questioning, judging, and sometimes abandoning their tacit understandings of secondary school organizations. As the restructuring process continued, subject departmental head positions, such as Math or English, were replaced with facilitator positions such as Assessment or Community Relations. Creating new organizational structures based on functions as opposed to subjects, developing new images of the purposes of secondary school education, and the impact on individuals resulted in intense personal and collective introspection. At the end of the first year of implementation in the schools that were developing cross-departmental organizational structures, the existence of cognitive dissonance was evident. A participant described the early effect:

I think [there has been] chaos and there has been a lot of resentment. I think there has been a lot of insecurity in people, not knowing whether they're going to have this position or that position—feeling defensive, feeling protectionist. It has created a lot of disagreements, hard feelings, I think at times. I think that's getting better but I think that definitely was the impact originally. Maybe it needs to be done, we all need to be rattled and shaken a little bit. And it doesn't look positive at first, but I think eventually if you all pull together for that direction, it comes back together. (Int96: J2)

Yet engendering cognitive dissonance without the jurisdictional authority to create alternative organizational models or without the means of engaging the staff in generating alternatives could be debilitating. The union-school district joint decision to advocate site-based models was crucial in providing the jurisdictional authority. In addition, as is discussed below, the inclusionary decision-making practices by administrators and teachers enhanced the decision-making space, thus increasing the scope of the ideas considered.

In the 1998 and 1999 data, although the schools with the most heterogeneous organizational models demonstrated a higher acceptance of alternative perspectives, an increased acceptance of divergent beliefs was apparent in all school-based restructuring teams. Further, they were learning that exploring such differences was not only part of the professional learning process, but that change capacity required such processes. For example, a participant suggested:

I think you should be able to agree and disagree, to have that kind of healthy dialogue, and hear other people's points of views that maybe you never thought of or ever considered. I think that's really healthy. That's how we grow and we learn. (Int96: J2)

Some school staffs were learning how to work with and honor heterogeneous groups that were not subject-specific and addressed whole-school functions. Such change requires the creation of collaborative cultures, and the data suggested that participants were working together on issues related to teaching and learning. Thus there was evidence of joint work, which Little (1990) argues is the highest form of collaboration, and this form of collaboration requires an acceptance of divergent opinions and the agency to explore the divergence. Change capacity, therefore, included increased collaboration at the highest form.

Fullan (1999) argues that people must construct their own meaning of change through engagement because capacity-building increases as participants exchange and integrate ideas in the organization. One way of developing such shared meaning is dialogue, which can assist in transforming cognitive dissonance from a negative to a positive element. From the 1999 data, dialogue had become the accepted means to explore the perceptual differences and to forge new possibilities. Facilitating such discussions was both an indication of, and a strategy for, change capacity. A participant reflected on the importance of dialogue:

Just the chance even that we talk to other people ... presenting our model to other people.... And have them question it, ask us about it. All of that stuff is very good. It really makes you reassess, well, why did we do that? We did make that change. But did we have a reason for that change? What was there? So I

think that type of thing, getting out and sharing with other people is good. (Int99: 14)

In the individual schools, the changing structures affected the interactions between staff. Diminished emphasis on subject divisions provided greater opportunity for cross-subject work and dialogue. Participants reported that their staffs valued these opportunities, for example:

What people don't want to lose is those opportunities that we'd had to work together as a staff. We really have, I think, come a long way in breaking out of our individual departments and looking at whole-school issues. (Int99: E15)

Understanding the importance of cognitive dissonance and incorporating the means of addressing cognitive dissonance into the change process are key facets of successful change capacity. In this longitudinal study, facilitating change capacity became closely associated with dialogue in the school, but also across the school district. Moreover, the dialogue involved making the best possible decision given the context and then taking action. The participants devoted an intense amount of time and energy to facilitating the inclusionary dialogue that provided the way for most school staffs to turn cognitive dissonance into a creative, rather than a destructive, force. This allowed participants to work through the complexity of challenging the taken-for-granted homogeneous organizational structure while concurrently engendering the energy to create and sustain site-based models. As such, honoring and addressing cognitive dissonance indicates the existence of change capacity, but it also provides a glimpse into one facet of successful change agency.

Forging New Relationships

Change capacity inherently demands new relationships, and these constitute the third key element in understanding and facilitating change capacity. The data indicate that the organizational change perpetuated through the creation of site-based models also gradually resulted in new relationships that embedded change capacity deeply into the culture and structure of the secondary schools and the school district. New relationships were evident between the union affiliate and the school district, between the teachers and the school administrators, and in the operation of the schools themselves. The new relationships can be traced to the initiation of the restructuring processes. Of course, all schools differed in the degree of these changes because of their contextual realities, and all schools were influenced by the volatile Ontario political context. The actions documented that the school district was enacting a commitment approach to improvement with a particular emphasis on innovative working relationships, teacher collegiality, and shared decision-making (Rowan, 1990).

Change capacity exists in a context and for several years the change literature has emphasized the importance of facilitating change from the bottom up and from the top down. The data support these assertions, but as early as 1997 the data also identified the involvement of the union affiliate and a university (OISE/UT) as a sideways dimension. A crucial element was the partnership of the union affiliate and the school district to adapt the collective agreement to be congruent with a site-based organization, because they believed that the subject department structure no longer met school needs (Ross, Hannay, &

Brydges, 1998). The collaborative labor relations (Bascia, 1994), operationalized through a joint Steering Committee, resulted in jurisdictional authority for individual schools to change their organizational models, and the innovative working relationships (Rowan, 1990) eased some of the tension inherent in organizational change.

The partnership between the union affiliate and the school district provided a context in which change and change capacity were possible. The initial mandate from the joint Steering Committee that the status quo was unacceptable provided the top-down, sideways impetus to enter into the restructuring process. However, the union-school district partnership successfully balanced pressure with support. The collaborative labour relationship nudged restructuring in schools through change expectations, but it also supported the internalization of change capacity by providing professional learning activities.

To a lesser degree, the relationships forged during this complex change also involved the sideways involvement of a university. This sideways influence from external players provided insights from other jurisdictions, but the primary value was the continual input of data that was shared with the schools, both through written accounts and through professional learning activities. Certainly to some degree this provided the schools with data on which to base decisions, and recent research suggests that school staffs that are successfully implementing whole-school change are operating through inquiry and with data on which to base decisions (Darling-Hammond & McLaughlin, 1995; Hannay & Ross, 1997b; Joyce, Calhoun, & Hopkins, 1999; Kruse, Louis, & Byrk, 1995; Lieberman, 1995).

The top-down and sideways relationships supported change capacity by addressing jurisdictional issues and providing both pressure and support. However, school change also involves a bottom-up dimension, and the data clearly indicate that innovative working relationships (Rowan, 1990) were forged in most of the participating secondary schools. Two factors were particularly germane to perpetuating relationships at the school level, which enhanced change capacity: shared leadership and decision-making. The modifications in these relationships, documented over the last four years, clearly demonstrate the dynamic link between organizational modifications and change capacity. Participants were enacting a democratic SBM as defined by Leithwood (1998) as well as increased teacher collegiality and shared decision-making, which are critical components of the commitment approach to improvement (Rowan, 1990).

New connections were being formed in the schools between those in formal leadership roles, such as school administrators and PORs, and all staff members had an informal role in decision-making. These relationships resulted in the gradual establishment of teacher leadership with an acceptance of a decision-making role and of responsibility for action. As a principal suggested, "I think there are more teaching staff involved in shaping and initiating school change" (Int97: P1), and another said, "there are more partners now in the decision-making than there had been in the past" (Int97: P2). This has resulted in "more sharing in who has power and what's going on in the school" (Int98: E13), which according to an administrator, resulted in "a lot more of buying in of everybody, in terms of having a say and really taking ownership for how

things are done here" (Int97: P8). For some schools, such new relationships not only changed the power balance, but supported innovative working relationships through new structures as described by a participant:

I think part of what I like is that it seems as if we're self governing almost. Things are run now by committees.... You feel like you've got a position in the school where you're actually maybe making a difference. (Int99: E11)

Alternating working relationships required that participants rethink their roles and their connections both to the school and to the school district. Moreover, these changes took place in a negative provincial political context. Yet new ways of working together were perhaps necessary for entrenching and facilitating change capacity. Without the development of the collaborative union relations, schools staffs would have had neither the decision-making space nor permission to explore alternatives. Without the data continually input by the sideways partner of a university, the participants would have lacked an external mirror through which to consider their actions or organizations. Without the establishment or acceptance of shared decision-making and the ownership of decisions at the school level, the creation of new interaction patterns would have been difficult. The existence of these new relationships provides evidence that change capacity was entrenched in these sites, but also such relationships provided the means of facilitating change.

In summary, over the four years of data collection, we documented the emergence of change capacity in the studied schools. Obviously the contextual realities meant that this capacity varied by school, and yet the three elements of change capacity explored were documented in all schools to some degree. Challenging the homogeneous past structures of their schools required that participants think deeply about their tacit knowledge and the purpose they deemed most important for the learning opportunities offered to students. By accepting that individual beliefs must be respected, participants gradually learned to honor and address cognitive dissonance through the development of deep collaborative efforts and dialogue. Through the need to adapt models annually, the participants formed new relationships between all staff members, and they were supported by new relationships between the union affiliate and the school district, as well as with a university. All these factors contributed to the change capacity documented and practiced in these schools, but clearly the foundational element was the requirement of school staffs to create new organizational models.

Discussion: Connecting Change Capacity and Organizational Restructuring

In education we have been guilty of looking for the quick solution or the right guru that will provide the magical answers to help us facilitate change quickly. The elements of change capacity investigated in this article are not the quick solutions to facilitating change in secondary schools, as such change is complex, often chaotic, and context-driven. Rather, the data indicate an emergent change capacity that was grounded in a commitment approach to improvement (Rowan, 1990) and democratic SBM (Leithwood, 1998).

Through this research program, we have learned about the process of change in nine secondary schools that can illuminate the process in other contexts. In this study we quickly learned that the organizational change man-

dated for individual schools was the catalyst for the changes documented. We also learned quickly (Hannay & Ross, 1997b, 1999b) that staff involvement in creating the new school context-specific organizational models and the related questioning of the givens (the subject-based organizational structures) was the foundational element that perpetuated change. Clearly it was not the models developed per se that supported change capacity, but the process of continually evolving the models by the school staffs that provided the conditions for internalizing change capacity. Our research suggests that it is unlikely that mandated organizational structures through a control conception of improvement (Rowan, 1990) could have fostered the internal change capacity that we documented. In the following section we explore the conditions that connected change capacity and organizational restructuring in the participating schools.

Creating Conditions for Change Capacity

Only people or living organizations (de Gues, 1997) can learn—static organizations cannot learn or adapt. Perhaps in this study, the school district as an organization was successful in supporting change capacity because it did nothing directly to create it. Rather, the district provided the conditions in which individuals in the schools could learn about what was important for their schools and then could create ways to achieve those goals; all of which is reminiscent of a commitment approach to improvement (Rowan, 1990). In retrospect, the initial decisions in this restructuring process, as explored more fully in another account (Hannay et al., 2001b), provided the conditions that supported the development of an organization that could learn and adapt. These initial decisions included: that the status quo was not acceptable; school models were to be both program- and context-based; school committees were to design and then annually review their models; and learning organizations required professional learning opportunities.

These conditions guided the restructuring process and supported the development of change capacity in many ways. The mantra that the status quo organizational structure was not acceptable was pivotal in understanding the relationship between change capacity and organizational change. The school-based organizational structures went from being inert structures based on a century-old tradition to those that were dynamic and continually changing because school staffs had to question their tacit organizational knowledge. Challenging the taken-for-granted structures required school staffs to deliberate collectively on possibilities. Such deliberations required they go beyond past answers because, as Schwab (1978) suggests, without new ways of looking at any change, “the best choice among poor and shopworn alternatives will still be a poor solution to the problem” and that problems “cannot be well solved by apparently new solutions using old habits of mind and old ways of doing things” (p. 602).

Accepting that school staffs would design an organization model to reflect their needs at a given time meant that the school district gave up control over individual organizations, but it also meant that networks of new relationships developed. These networks were continually being reshaped as the process continued and gradually facilitated new understandings as individuals worked with many others in various ways.

The initial set of decisions requiring that school staffs generate site-based organizational models, designed to best facilitate student learning opportunities, eventually led to patterns of learning deeply embedded in most schools. The school organizations not only became learning or living organizations, but participants gradually came to think about organizations and change differently. Living organizations change and adapt, and therefore structures could not be enshrined in concrete or be expected to continue unchanged. This concept of secondary school organizations as flexible and adaptive represents a significant shift. In many ways, these schools as organizations were becoming more porous as school staffs sought alternatives and responded both to the needs of their school context and to the changing milieu in a proactive, rather than a reactive, manner. This certainly seems to be aligned with one of de Geus' (1997) assertions that long-lasting organizations are sensitive to their environment, can learn, and can adapt.

Ironically, the school district as an organization provided the conditions for change capacity by not providing the rules or lessons for change capacity. The school district and its partners were not removed from the process; rather, they nudged, supported, questioned, and celebrated the restructuring process as it unfolded, but they did not manage the process in a traditional sense or control the outcomes. Perhaps the lesson to be learned from the process undertaken in this school district is to provide the conditions that will support organizational learning and trust that not only will participants develop organizations that can learn and adapt, but also that change capacity will be a valuable outcome of this process.

Conclusion

In developing and utilizing change capacity, the means and ends interact. Change capacity includes the ability to generate alternatives beyond those previously experienced, and yet generating such alternatives might be problematic in a static and taken-for-granted organizational structure. Conceptualizing and creating new organizational structures can expand the alternatives considered possible but only when the participants are engaged in creating the structures; imposing such structures is less likely to perpetuate change capacity. This study also, then, suggests that the process of facilitating restructuring in this school district not only led to increased change capacity, but also to a deeper understanding of both the complexity of deep change and the means by which to facilitate it.

Certainly the findings from this longitudinal study have implications for other school districts and provinces to ponder. Many Canadian jurisdictions have adopted an external control approach to improvement, with increased monitoring, student testing, and more demanding responsibilities for teachers (Rowan, 1990). Yet our data clearly suggest that although it is complex to support a commitment improvement approach, especially in secondary schools, such an approach can lead to internal change capacity and significant organizational change. Perhaps Canadian educators need to ponder whether a control or commitment improvement approach can best support student learning and can sustain schools that are continually adapting to meet the needs of a rapid-fire milieu.

Notes

1. In Ontario the individual school districts have the legislated authority to develop Positions of Responsibility organizational models for their school systems.
2. In this article we use the existing name of the school district at their request, but all identifying characteristics of individuals or schools have been removed.
3. We use the language of empowerment because the district turned over to schools the power to allocate release time and stipends previously assigned by the district to department head positions. Teacher committees, not principals, made decisions. The district provided extensive inservice for members of school restructuring committees on needs assessment, goal-setting, model development, action research, curriculum innovation, and other topics requested by teachers.
4. Each verbatim quote is coded to identify the data source. For example, Int95 indicates the quote is from an interview conducted in 1995, the school is represented by a letter, and a number indicates the individual interviewed. This allows the reader to determine the temporal and geographical source of the data to enhance credibility.

Acknowledgments

This research program was funded by grants from the Social Science and Humanities Research Council of Canada and the Ontario Ministry of Education and Training with support from the Kawartha Pine Ridge District School Board and District #49 Ontario Secondary School Teachers Federation. An earlier version of this article was presented at the British Education Management Administration Society Sixth International Conference, Cambridge University, UK.

We thank our colleague Wayne Seller from OISE/UT for his thoughtful critique of this article.

References

- Bascia, N. (1994). *Unions in teachers' professional lives: Social, intellectual and practical concerns*. New York: Teachers College Press.
- Bennett, N. (1999). Middle management in secondary schools: Introduction. *School Leadership and Management*, 19, 289-292.
- Brown, M., & Rutherford, D. (1998). Changing roles and raising standards: New challenges for heads of department. *School Leadership and Management*, 18, 75-88.
- Century, J.R. (1999, April). *Determining capacity within systemic educational reform*. Paper presented at the Annual Meeting of the American Educational Research Association.
- Darling-Hammond, L. (1995). Policy for restructuring. In A. Lieberman (Ed.), *The work of restructuring schools: Building from the ground up* (pp. 157-176). New York: Teachers College Press.
- Darling-Hammond, L., & McLaughlin, M. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan* 76, 597-604.
- de Geus, A. (1997). *The living company*. Cambridge, MA: Harvard Business School Press.
- David, J. (1989). Synthesis of research on school-based management. *Educational Leadership*, 46(8), 45-53.
- David, J. (1995). The who, what, and why of site-based management. *Educational Leadership*, 53(4), 4-9.
- Dellar, G. (1996). The nature of secondary school organization and site specific restructuring. *International Journal of Educational Reform*, 5, 463-471.
- Doherty, K., & Abernathy, S. (1998). *Turning around low-performing schools: A guide for state and local leaders*. EA029104. Washington, DC: Department of Education.
- Elmore, R., & Burney, D. (1998). *School variation and systemic instructional component in community school district #2, New York City*. Philadelphia, PA: University of Pennsylvania Consortium for Policy Research in Education.
- Fullan, M.G. (1993). *Change forces: Probing the depths of educational reform*. London: Falmer Press.
- Fullan, M.G. (1999). *Change forces: The sequel*. London: Falmer Press.
- Gregory, T. (2000). *School reform and the no-man's-land of high school size*. Unpublished manuscript, Indiana University.
- Grossman, P.L., & Stodolsky, S.S. (1995). Content as context: The role of school subjects in secondary school teaching. *Educational Researcher*, 24(8), 5-11, 23.
- Hannay, L. (1992). *Secondary school change: Current practice, future possibilities* (Tech. Rep.). Kitchener, ON: OISE Midwestern Centre.
- Hannay, L. (1996). The role of images in the secondary school change process. *Teachers and Teaching: Theory and Practice*, 2(1), 105-112.

- Hannay, L., & Bissegger, M. (1994). *Department heads in transition* (Tech. Rep.). Ottawa: Social Sciences and Humanities Research Council of Canada.
- Hannay, L., & Ross, J. (1996). *Secondary school reform and alternative organizational structures* (Tech. Rep.). Toronto, ON: Ministry of Education.
- Hannay, L., & Ross, J. (1997a). *Secondary school reform: Developing new structures to enhance student learning* (Tech. Rep.). Toronto, ON: Ministry of Education and Training.
- Hannay, L., & Ross, J. (1997b). Initiating secondary school reform: The dynamic relationship between restructuring, reculturing, and retiming. *Educational Administration Quarterly*, 33(Supplement), 576-603.
- Hannay, L., & Ross, J. (1999a). *Secondary school reform: Developing new structures to enhance student learning: Final Report* (Tech. Rep.). Toronto, ON: Ministry of Education and Training.
- Hannay, L., & Ross, J. (1999b). Department heads as middle managers? Questioning the black box. *School Leadership and Management*, 19, 345-358.
- Hannay, L., & Schmalz, K. (1995). *Examining secondary school change from within* (Tech. Rep.). Kitchener, ON: OISE Midwestern Centre.
- Hannay, L., & Smeltzer Erb, C. (2000). *The dynamic process of secondary school change: The interactive roles of school district, the school, the federation, the teacher and the student* (Interim Rep.). Ottawa: Social Sciences and Humanities Research Council of Canada.
- Hannay, L., & Smeltzer Erb, C. (2001). *The dynamic process of secondary school change: The interactive roles of school district, the school, the federation, the teacher and the student* (2nd Interim Rep.). Ottawa: Social Sciences and Humanities Research Council of Canada.
- Hannay, L., Smeltzer Erb, C., & Ross, J. (2001a). To the barricades: The relationship between secondary school organizational structures and the implementation of policy initiatives. *International Journal of Leadership in Education*, 4, 97-113.
- Hannay, L., Smeltzer Erb, C., & Ross, J. (2001b). Building change capacity within secondary schools through goal-driven and living organisations. *School Leadership and Management*, 21(3), 271-287.
- Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. Toronto, ON: OISE Press.
- Hargreaves, A., Earl, L., & Ryan, J. (1996). *Schooling for change*. Philadelphia, PA: Falmer Press.
- Joyce, B., Calhoun, E., & Hopkins, D. (1999). *The new structure of school improvement: Inquiring schools and achieving students*. Philadelphia, PA: Open University Press.
- Kemper, E.A., & Teddlie, C. (2000). Mandated site-based management in Texas: Exploring implementation in urban high schools. *Teaching and Change*, 7, 172-200.
- Kruse, S., Louis, K.S., & Byrk, A. (1995). An emerging framework for analyzing school-based professional community. In K.S. Louis & S. Kruse (Eds.), *Professionalism and community perspectives on reforming urban schools* (pp. 23-44). Thousand Oaks, CA: Corwin Press.
- Lam A., (2000). Tacit knowledge, organizational learning and societal institutions: An integrated framework. *Organizational Studies*, 21(3), 487-513.
- Leithwood, K.A. (1998). Educational governance and student achievement. *Orbit*, 29(1), 34-37.
- Leithwood, K., & Aitken, R. (1995). *Making schools smarter: A system for monitoring school district progress*. Toronto, ON: OISE/UT, Centre of Leadership Development.
- Lieberman, A. (1995, April). Practices that support teacher development: Conceptions of professional learning. *Phi Delta Kappan*, 76, 591-596.
- Little, J.W. (1990). Conditions of professional development in secondary schools. In M.W. McLaughlin, J.E. Talbert, & N. Bascia (Eds.), *The contexts of teaching in secondary schools: Teachers' realities* (pp. 187-223). New York: Teachers College Press.
- Massell, D. (1998). *State strategies for building capacity in education: Progress and continuing challenges*. Philadelphia, PA: Consortium for Policy Research in Education.
- McLaughlin, M.W., & Talbert, J.E. (1990). The contexts in question: The secondary school workplace. In M. W. McLaughlin, J. E. Talbert, & N. Bascia (Eds.), *The contexts of teaching in secondary schools: Teachers' realities* (pp. 1-14). New York: Teachers College Press.
- Monk, D.H. (1992). Modern conceptions of educational quality and state policy regarding small schooling units. In North Central Regional Educational Lab. *Source book on school and district size, cost, and quality*. ED361160 EDRS. Washington, DC: Office of Educational Research and Improvement.
- Prestine N. (1998, April). *Disposable reform? Assessing the durability of secondary school reform*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.

- Raywid, M.A. (1999). *Current literature on small schools*. (Report No. EDO-RC-98-8). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED 425 049)
- Rosenholtz, S.J. (1989). *Teachers' workplace: The social organization of schools*. New York: Longman.
- Ross, J., Cousins, J.B., Gadalla, T., & Hannay, L. (1999). Administrative assignment of teachers in restructuring secondary schools: The effect of out-of-field course responsibility on teacher efficacy. *Educational Administration Quarterly*, 35, 782-805.
- Ross, J., Hannay, L., & Brydges, B. (1998). District-level support for site-based renewal: A case study of secondary school reform. *Alberta Journal of Educational Research*, 44, 349-365.
- Ross, J., & Regan, E. (1993). Sharing professional experience: Its impact on professional development. *Teaching and Teacher Education*, 9(1), 91-106.
- Rowan, B. (1990). Commitment and control: Alternate strategies for the organizational design of schools. In C. Cazden (Ed.), *Review of research in education* (vol. 16, pp. 353-389). Washington, DC: American Educational Research Association.
- Sebring, P., Bryk, A., & Easton, J. (1995). *Charting reform: Chicago teachers take stock. A report*. Chicago, IL: Consortium on Chicago School Research.
- Schwab, J. (1978). The practical: A language for curriculum. In J. Gress & D. Purpel (Eds.), *Curriculum: An introduction to the field* (pp. 586-607). Berkeley, CA: McCutchan.
- Siskin, L.S. (1994). *Realms of knowledge: Academic departments in secondary schools*. London: Falmer Press.
- Talbert, J.E., & McLaughlin, M.W. (1992). *Teachers' professionalism as negotiated order*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco.
- Wagstaff, J.G. (1995). Site-based management, shared decision making, and science and mathematics education: A tale of two districts. *Theory into Practice*, 34(1), 66-73.