

**Professional Learning Communities:
Developing a School-Level Readiness Instrument**

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Abstract

Professional learning communities have become a focus of educational reform in New Brunswick. The implementation and sustainability of this reform is dependent on shifting many of the organizational and operational characteristics of the traditional bureaucratic model into those that support a learning community approach in schools. The study examined traces the process for developing a school-based instrument that identifies systemic barriers that may prevent schools from becoming professional learning communities. The instrument examines culture, leadership, teaching and professional growth & development factors in an attempt to determine the readiness of a school to become a PLC.

Educational reforms and demands for school improvement have become fundamental avenues for improving economic and social conditions in our society. These reform efforts, however, are too often rooted in a bureaucratic system that is incapable of stimulating and sustaining meaningful improvements in teaching and learning (Corcoran, Fuhrman, & Belcher, 2001). The traditional operational model used in many schools, being part of a greater bureaucracy designed to meet the training needs of a more stable industrial society, is incapable of dealing with the demands for flexibility and creativity requisite for a knowledge-based society (Beairsto, 1999; Hargreaves, 2003). In response to this concern, approaches to school improvement have shifted from centrally mandated, standards-based reforms toward a more collaborative site-based model (Datnow, 2002; Hargreaves & Goodson, 2006; Goertz, 2001; Slater, 2004). This has led to a shift from a view of schools as bureaucratic organizations to one of schools as *professional learning communities* (PLCs) (Scribner, Cockrell, Cockrell, & Valentine, 1999; Senge, Kleiner, Roberts, Ross, & Smith, 2000). While there is no universal definition of a professional learning community, an international review of the literature indicates that PLCs appear to share five key components: shared values and vision, collective responsibility, reflective professional inquiry, professional collaboration, and promotion of group and individual learning (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Schools where these components are combined to focus on student learning are more effective in sustaining improved student achievement (Bredeson & Scribner, 2000; Louis, Toole, & Hargreaves, 1999). Accordingly, the Province of New Brunswick (2007) has chosen to support the development of the PLC concept throughout the public school system.

The decision to adopt the PLC approach to school reform is only the first and arguably the easiest step. Over 30 years of effort has proven that successful implementation is far more difficult (DuFour, Eaker, & DuFour, 2005). Fullan (2005b) contended that one important barrier to implementing PLCs in schools lies in the failure to consider the context at all three levels of the system—schools, districts, and provincial departments of education. We support his argument that it is unreasonable to expect schools to become PLCs while the district and provincial levels of the education system continue to operate solely as bureaucracies. Fullan (2006) further argued “If you want to change systems, you need to increase the amount of purposeful interaction between and among *individuals* within and across the tri-levels” [emphasis in original] (p. 116). Current research (Datnow & Kemper, 2003; Fullan, Rolheiser, Mascall, & Edge, 2002; Togneri & Anderson, 2003) has attributed the failure of reform efforts to their singular focus on one level of the system—the school. This research shows that policy

makers who wish to significantly reform educational systems and improve our schools must adopt a tri-level systems approach.

This article examines the first stage of a SSHRC-funded study designed to generate instruments that schools, districts and provincial organizations can use to measure the barriers preventing the adoption of PLC reform in New Brunswick. The theoretical underpinning of our approach combines Fullan's (2005b) argument for tri-level reform with Deming's (1986) proposition that eighty-five percent of all employee effectiveness is determined by the system within which the employees work. We begin with a review of the literature concerning school level PLC reform characteristics, and follow this with a description of the research design for the work at the school-level. We conclude with a description of the resulting school-level instrument and implications for parallel work at the next two levels.

School-Level Reform Characteristics

While efforts to implement a PLC culture in a school are subject to barriers originating from all three levels of the education system, the first stage of our literature review focused on those at the school. The successful transformation of schools into professional learning communities is impacted by two clusters of internal characteristics: a) organizational characteristics such as culture, leadership, and capacity-building, and b) operational characteristics such as professional development, data collection, and systemic trust.

Organizational characteristics

The culture of a school is one of its critical organizational characteristics. Although researchers are just beginning to document the effectiveness of the PLC culture, early indications show that it has a significant positive effect on student learning (Lee & Smith, 1996; Louis & Marks, 1998; Stoll et al., 2006; Wiley, 2001). Much of this effect depends on the existence of a school-wide capacity to focus on learning rather than teaching (DuFour, 2004). While individual components of a PLC culture have been present for more than 30 years, Bolam et al. (2005) found that a school-wide capacity to promote and sustain learning was too often missing. Bryk, Camburn, and Louis (1999) further argued that even when present, this learning capacity needed to be more focused on student achievement. As the measure of school success shifts from effective teaching to outcomes-based learning teachers are required to revise their classroom instructional practices (Andrews & Lewis, 2007) and develop greater program coherence (King & Newmann, 2000). Fullan (2000) describes the move to PLCs as

reculturing that “involves going from a situation of limited attention to assessment and pedagogy to a situation in which teachers and others routinely focus on these matters and make associated improvements” (p. 582). Morrissey (2000) would similarly contend that unlike the past attempts to improve education, a PLC is not a package of skills or a short-term program to implement, but an entirely new way for schools to function.

Leadership is the second important organizational characteristic of a school. Bryk et al. (1999) recognized that principals play a key role in nurturing a climate that supports innovative professional activity. While principal leadership styles varied, they believed it very unlikely that a professional community could be sustained without strong principal support. Williams (2006) found that although principal leadership styles varied, most principals could adopt a collaborative style. Morrissey (2000), in a study of leadership capacity of principals, found that without identifying a shared focus for improvement administrators could not guide their staff towards a collective vision for their students or their school. Morrissey also encouraged principals to communicate their belief in PLCs and to create structures that ensure the sharing of leadership and decision-making. Stoll et al. (2006) reinforced this point by stating that principals need to distribute leadership by providing teachers with opportunities to take leadership roles related to teaching and learning.

The third organizational characteristic, capacity-building, is key not only to implementation but the sustainability of professional learning communities (Hargreaves & Fink, 2006). King and Newmann (2000) as well as Mitchell and Sackney (2001) have defined school capacity in terms of individual, collective (or interpersonal), and organizational factors. Individual capacity refers to the knowledge, skills, and dispositions of individual teachers in a school, while collective or interpersonal capacity is associated with the quality of collaboration among members of the teaching staff. Organizational capacity stems from structural factors that can help or hinder a school’s growth as a learning community. Massell and Goertz (2002) contended that capacity building provides consistency and focus, but it requires sufficient time and support to change teachers’ practices. This support must be developed through human resources and structural support from within the school (Bryk et al., 1999), within the district (Berends, Bodilly, & Kirby, 2002; McLaughlin & Talbert, 2002; Wohlstetter, Malloy, Chau, & Polhemus, 2003), and through networks beyond the district (Rusch, 2005).

Operational characteristics

In addition to these organizational characteristics there are also important operational factors that need to be considered when attempting to implement PLCs at the school level.

These include professional development, use of data, and system-wide trust. For reform to be sustainable, professional development must be well researched and effectively facilitated (Corcoran et al., 2001). Spillane (2002) argued for a change in the traditional top-down approach to professional development which does little to promote teacher learning. Youngs (2001) found that professional development strategies must achieve a balance between promoting coherence across and providing autonomy to individual schools. Togneri and Anderson (2003) reported that many schools and districts were moving away from one-shot workshops and that principals and teachers were seeking new ways to engage teachers in embedded professional learning activities. Fullan (2005a) captured the importance of redefining professional development stating that capacity building “is the daily habit of *working together*, and you can’t learn this from a workshop or course [italics in original]” (p. 69).

A second operational characteristic at the school level is the collection and use of data. The types of data collected and the way they inform decision-making are key issues that must be considered. Student data collected in bureaucratically operated schools focus primarily on summative assessment and fail to address the need for timely classroom interventions. The data collected in a PLC focus more on formative assessment used to support school efforts to transform teaching and learning (Guskey, 2007) and become part of a coherent plan for comprehensive school-wide reform (Berends et al., 2002; Hamann, 2005; Rusch, 2005). According to Togneri and Anderson (2003), districts need to use a multi-measure data collection system to inform practice, hold schools accountable, and gauge student and school progress. Fullan (2006), however, cautioned that while the use of data it is necessary, it is equally important to avoid excessive demands on schools, for these demands focus on short term results, place blame on individuals, and undermine teacher trust.

In a learning organization, the level of trust among members is a crucial aspect to its operations. According to Macmillan, Meyer, and Northfield (2005), trust between a principal and teachers in a school is a reciprocal relationship that is not automatic but is negotiated and earned. They claimed that without trust some teachers might retreat to the minimal requirements with regard to instruction and resist becoming involved in school improvement efforts. Morrissey (2000) pointed to both a culture of trust and mutual respect within relationships together with the collective engagement of teachers and administrators as components of successful schools. Bryk and Schneider (2003), referring to the interrelated set of mutual dependencies embedded within a school’s social exchanges, observed: “Regardless

of how much formal power any given role has in a school community, all participants remain dependent on others to achieve desired outcomes and feel empowered by their efforts” (p. 41).

The organizational and operational characteristics found in the literature were reinforced by our brainstorming sessions with the school teams. The successful praxis of our research is founded on equal measures of literature review and team conversations, and enabled by our research design.

Research Design: Purpose and Process

The purpose of this two-year study is to develop instruments that can be used to measure the institutional barriers existing at the school, district office, and provincial levels that hinder educational reform. Since an ever-increasing body of literature indicates that schools operating as PLCs are more effective and conducive to growth and change than those operating as traditional hierarchical bureaucracies, the broad term of educational reform was narrowed for our research to refer specifically to the move towards the PLC approach. The intent of each instrument is to measure the extent to which a school, district, or department of education currently exhibits the characteristics of PLCs. By measuring this extent along a continuum of organizational approaches from a more bureaucratic to a more PLC orientation, the instrument allows for the identification of the readiness level for adopting the practices of a learning organization. It is important to recognize that this readiness assessment is intended to generate reflection on existing organizational practice rather than serve as an external evaluative measure. For the purpose of this article, we will focus on the development of the school-level instrument.

This study can be classified as mixed-methods action research. Action research as defined by Levin (1999) is the study of operating systems in action, the study between theory and practice (p. 29). Merriam and Simpson (2000) have listed three criteria that distinguish action research from other social research: (1) the researcher acts as a facilitator and catalyst in the research process; (2) results are meant for immediate application; and (3) the design of the research is emergent in nature, developed as the research takes place rather than being completely predetermined from the beginning of the study. There are also components of Bogdan and Biklen’s (1997, as cited by Merriam & Simpson) definition of action research, which emphasizes the use of action research to bring about social change (p. 122).

The direction and coordination of the overall study was provided by a four-person university research team consisting of two principal investigators and two graduate assistants. For the development of the school instrument, the university team decided to create additional

site-based teams, one at each of the four schools that were chosen. The schools were located within the two districts that would later be developing the district instrument. The rural district's school sites were a mid-size high school (Grades 9 – 12) and an elementary school (K – 5). The urban district's school sites were a large high school (Grades 9 – 12) and a middle school (Grades 6 – 8). The rationale behind the selection of school and district sites was to include a variety of settings according to size, location, and grade levels. We felt that the communication networks and relationship dynamics would be significantly different, for example, in a rural elementary school compared to a large urban high school.

Another factor in choosing the school and district sites was their existing disposition toward PLCs. Both districts supported and embraced the idea of PLCs and each principal had participated in some form of workshop or training session focusing on PLCs. On the topic of school and district selection, two questions arose during the research:

1. Why did we deliberately choose schools and districts that had already accepted the value of PLCs?
2. If we were interested in identifying barriers to building PLCs, would it not make sense to choose schools and districts that were struggling with the concept?

Our responses reflected the need for university researchers to build trust and support with the site-based teams and the belief that teams already supportive of PLCs would be more receptive to discussing the barriers and obstacles they had overcome in their journey to become learning communities. Moreover, any barrier identified in a receptive school would presumably be a barrier in a non-receptive school. Time constraints and relationship dynamics played a part in the decisions as well because we recognized that our research depended on the goodwill and cooperation of the participating teams. Schools were donating their time to contribute to the creation of these instruments. A pre-existing interest in, and commitment to, the topic would counterbalance the impositions that the research team would have to make on their time.

Each school team consisted of five members made up of classroom teachers, lead teachers, and the principal. For each school team, the principal was the team leader. Once the school teams were established, we set up a series of meetings, some with the university researchers present and others with the site-based teams alone. The introductory meeting between the research team and the site-based team focused on developing trust and rapport, outlining the research project and the roles of team participants, and establishing team protocols. The primary task for the first meeting was to create a shared understanding of PLCs by outlining their basic underpinning principles and describing some of their core characteristics. After this introductory meeting each school team was invited to meet by themselves to

brainstorm barriers to implementing PLCs. At the third team meeting, the researchers were again present and the main focus was further brainstorming and dialogue on potential barriers to the educational reform process. By the fourth meeting, the researchers had assembled a composite list of barriers gathered from all four schools and shared this list with each school team. The researchers had sorted this list into emerging themes and had developed prototype items for the survey instrument. The school teams were asked to contribute their input on both the themes and sample instrument items.

Documentation of the first, third, and fourth meetings with the school teams was done by note taking, usually by at least two members of the research team. Notes from each meeting were shared within the research team, reduced to one composite version, and forwarded to the principal for a member check on the accuracy of the notes. The principals responded with clarifications and comments on the meeting notes, which were then adopted in final form. The practice of conducting a member check and allowing the principal to edit the notes was a step that contributed to the essential element of trust between the research and school teams. The editing provided by the principals did not hinder the identification of emerging themes for the existing barriers to educational reform and contributed to the ethos of collaboration and transparency that the research team wanted to model for the process. From the outset of the study the researchers clearly communicated to all participants that the purpose of the instrument was not to evaluate the quality or success of schools, but rather to capture their actual experiences and to identify barriers that might prevent the implementation of PLCs.

Following the identification of themes at the school, the researchers started to build the first draft of the instrument. We chose to use a five-point Likert scale modeled on the leadership instrument developed by Hord (1996). This decision was made because it allowed for the quantification of data, provided greater information to respondents than the standard Likert scale, which consists of solely a numerical scale. Each item followed the same pattern: responses 1, 3 and 5 on the scale had written descriptors to facilitate choice with responses 2 and 4 being left without descriptors to provide a broader continuum of possible responses. The descriptors for responses coded as 1 described conditions more closely associated with a traditional bureaucratic school model, while the descriptors for responses coded as 5 described those more characteristic of PLCs (See Appendix A). The school instrument was divided into four sections with each section focused respectively on the themes of culture, leadership, teaching, and professional growth and development. Within each section, five declarative statements addressed the theme, with each statement in turn dealt with by three or four questionnaire items thereby producing a total of 62 items on the school instrument.

Several steps were taken in the research process to ensure the validity of the items in the school instrument. As noted earlier, note taking during school meetings attended by the research team was done by at least two research team members so that individual interpretations could be clarified and restated in order to reach common understandings. While instruments items originated from site-based input, each was reinforced by the findings of an extensive review of the literature conducted by the university researchers. Preliminary wording of items was framed through the feedback of site-based teams and carefully analyzed during university research team discussions. The researchers conducted a check on the school instrument by creating a reliability document that was used to develop consensus on the purpose of instrument items. Members of the research team completed the reliability document, which simply asked for a one-sentence statement of the purpose of each of the 62 instrument items. Each member of the school teams also completed this document and the responses collected from the four school teams were compared with those of the university research team. Items that resulted in significant discrepancies in perceived purpose were reworded more clearly. The school instrument was then completed by all teachers in each of the four schools and respondents were asked to note any concerns regarding item wording on their answer sheets. The researchers then developed a report for each school on the basis of the data gathered from the school instrument. School reports were provided to principals to assess both the value of the data and appropriateness of the report format. Principals were then asked to meet with their teams to provide teachers with the same opportunity. Additional revisions were made to the school instrument based on respondent comments and feedback on the school reports. As a final step to ensure instrument validity and reliability we set up teacher focus groups in each school. The feedback gathered from over fifty teachers focused on two questions: a) did teachers find the items were written clearly? and b) did the report accurately describe the school?

Outcomes and Further Steps

The purpose of this phase of the research study was to create a school-level instrument to help a school identify barriers and measure its readiness with respect to becoming and growing as a PLC. We have created, refined, and piloted the school-level instrument with the cooperation of the four school teams. We have conducted an analysis of the results collected from a school-wide administration of the instrument at each of the four schools. This analysis allowed us to refine certain problematic instrument items and to prepare a report for each school

principal. These reports provided both quantitative and qualitative data to support our identification of barriers pertaining to PLC implementation at each school. In the process of identifying the barriers the instrument was able to identify school's strengths as well. In their final form, the school reports listed both the strengths and barriers and invited schools to make recommendations to guide school leaders who wished to adopt the PLC reform.

To date, the principals at all four pilot schools have indicated that they found our reports clear, informative, and encouraging. As indicated earlier, we see these instruments as tools for schools to use as they pursue reform and improvement by moving towards the culture of a PLC. Throughout the research process, we have emphasized to our stakeholders that these instruments are designed to promote internal reflection and not to be used as measures of accountability or performance by external bodies. To do the latter would seriously compromise the trust and collaboration that we have sought to build and maintain with our research partners and expose the instruments to weaknesses associated with the existing provincial school review process.

The four major sections of the school instrument each correspond to important issues identified from the literature and from our meetings with the school teams: culture, leadership, teaching, and professional growth and development. Within the section on culture, we have questions related to such topics as collegiality, trust, collaboration, and communication. Respondents at the four schools have reported, for example, on the extent to which the structure of the school schedule facilitates or impedes teacher collaboration during the school day. Since teacher collaboration is key element of PLCs, the daily schedule can be a significant structural barrier to the growth of PLCs. In the section on leadership, there are questions related to school decision-making, capacity building, and the use of data. Respondents at the four schools have indicated, for example, the extent to which principals collaborate with their teachers in making school decisions. The section on teaching addresses such topics as the sources of teachers' instructional practices, their approaches to lesson planning, and their assessment practices. Respondents reported, for example, on the alignment between existing teacher lesson plans and the essential elements of the provincial curriculum. The final section of the school instrument deals with the professional growth and development of teachers. This is a crucial element in capacity building, an important aspect of PLCs identified in the literature. Our instrument includes items related to the focus, delivery, and support provided for teacher professional development as well as the existing capacity of teachers to engage in professional collaboration. An interesting topic for follow-up discussion with our school teams is the

distinction between friendly collegiality and professional collaboration and whether teachers have the necessary knowledge, skills, and dispositions to engage in the latter as required in effective PLCs. It is well known that the culture of many schools promotes teacher isolation and individual effort, and we found this culture more deeply embedded in the high schools.

Our next step will be to expand our respondent base to include schools that were not involved in the development of the instrument. We are currently working with three other districts and have over 60 schools collecting data.

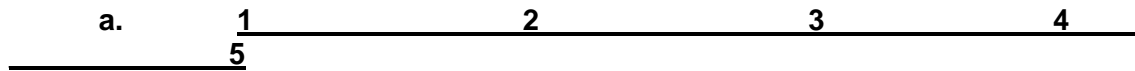
Conclusion

We have described the tri-level nature of institutional barriers to educational reform, with emphasis on their effects on the conditions at the school level. Our research is focused on the New Brunswick context for reasons related to the history of previous reform, the structural conditions of the provincial education system, and the current reform conditions and initiatives. We have also described the design, process, and current outcomes of our research along with our plans for further work at the school level. Moreover, we are continuing to follow this research model with our teams at the district and provincial levels and look forward to reporting on the processes and outcomes for those two levels in future work. Readers who wish to see the complete school instrument may contact either of the principal investigators through our university websites. We look forward to sharing our instruments with likeminded proponents of educational reform.

Appendix A

SECTION A. - CULTURE

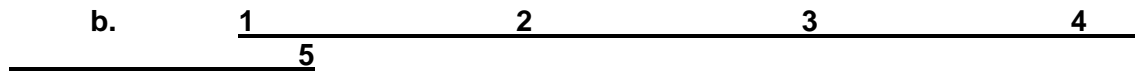
1. This school has a culture of collegiality, trust, and commitment.



Few teachers here are receptive to the presence of other professionals in their classrooms.

Some teachers here are receptive to the presence of other professionals in their classrooms.

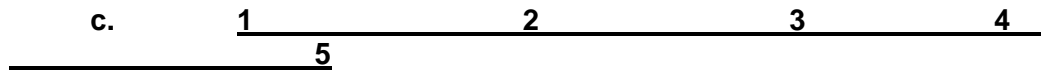
Most teachers here are receptive to the presence of other professionals in their classrooms.



There is a low degree of trust among teachers here to support the sharing of instructional practices.

There is moderate degree of trust among teachers here to support the sharing of instructional practices.

There is a high degree of trust among teachers here to support the sharing of instructional practices.



Few teachers here seem committed to helping other teachers improve instructional practices.

Some teachers here seem committed to helping other teachers improve instructional practices.

Most teachers here seem committed to helping other teachers improve instructional practices.

References

- Andrews, D., & Lewis, M. (2007). Transforming practice from within: The power of the professional learning community. In L. Stoll & K. S. Louis (Eds.), *Professional learning communities: Divergence, depth, and dilemmas*. Maidenhead, U.K.: Open University Press.
- Beairsto, B. (1999). Learning to balance bureaucracy and community as an administrator. In B. Beairsto & P. Rhuohotie (Eds.), *The education of educators: Enabling professional growth for teachers and administrators*. Tampere, Finland: University of Tampere.
- Berends, M., Bodilly, S., & Kirby, S. N. (2002). Looking back over a decade of whole-school reform: The experience of new American schools. *Phi Delta Kappan*, 84, 168 – 175. Retrieved on May 8, 2007, from Academic Search Premier.
- Bolam, R., McMahon, A., Stoll, L., Thomas, S., & Wallace, M. (with Greenwood, A., Hawkey, K., Ingram, M., Atkinson, A. & Smith, M.). (2005). *Creating and sustaining effective professional learning communities* [Research report]. London: DfES and University of Bristol.
- Bredeson, P. V., & Scribner, J. P. (2000). A statewide professional development conference: Useful strategy for learning or inefficient use of resources? *Education Policy Analysis Archives*, 8(13). Retrieved on Nov. 17, 2006, from <http://epaa.asu.edu/epaa/v8n13.html>
- Bryk, A., Camburn, E., & Louis, K.S. (1999). Professional community in Chicago elementary schools: Facilitating factors and organizational consequences. *Educational Administration Quarterly*, 35, 751 – 781. Retrieved on May 8, 2007, from SAGE Full-Text Collections.
- Bryk, A. S., & Schneider, B. (2003). Trust in schools: A core resource for school reform. *Educational Leadership*, 60(6), 40 – 44. Retrieved on May 8, 2007, from Academic Search Premier.
- Corcoran, T., Fuhrman, S. H., & Belcher, C. L. (2001). The district role in instructional improvement. *Phi Delta Kappan*, 83, 78 – 84. Retrieved on May 8, 2007, from Academic Search Premier.
- Datnow, A. (2002). Can we transplant educational reform, and does it last? *Journal of Educational Change*, 3, 215 – 239. Retrieved on May 9, 2007, from SpringerLink.
- Datnow, A., & Kemper, E. A. (2003, April). *Connections between federal, state, and local levels in the implementation of comprehensive school reform*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: MIT Press.
- DuFour, R. (2004). Schools as learning communities. *Educational Leadership*, 61(8), 6 – 11.
- DuFour, R., Eaker, R., & DuFour, R. (2005). Closing the knowing-doing gap. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 225 – 254). Bloomington, IN: National Educational Service.

- Fullan, M. (2000). The three stories of educational reform. *Phi Delta Kappan*, 81, 581 – 584. Retrieved on May 22, 2007, from Academic Search Premier.
- Fullan, M. (2005a). *Leadership and sustainability: Systems thinkers in action*. San Francisco: Corwin.
- Fullan, M. (2005b). Professional learning communities writ large. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 209 – 223). Bloomington, IN: National Educational Service.
- Fullan, M. (2006). The future of educational change: System thinkers in action. *Journal of Educational Change*, 7, 113 – 122. Retrieved on July 17, 2007, from SpringerLink.
- Fullan, M., Rolheiser, C., Mascall, B., & Edge, K. (2002, May). *Accomplishing large scale reform: A tri-level proposition*. Paper presented at the Second Annual Conference on Sustainability of Systemic Reform. [Internet conference]. Retrieved on Mar. 14, 2006, from <http://sustainability2002.terc.edu/invoke.cfm/page/70>
- Goertz, M. E (2001). Redefining government role in an era of standards-based reform. *Phi Delta Kappan* 83(1), 62-66.
- Guskey, T. R. (2007). Using assessments to improve teaching and learning. In D. Reeves (Ed.), *Ahead of the curve: The power of assessment to transform teaching and learning* (pp. 15-30). Bloomington, IN, Solution Tree.
- Hamann, E. T. (2005) Introduction: Examining the roles and possible roles of state departments of education in comprehensive school reform. *Journal of Education for Students Placed at Risk*, 10, 1 – 9. Retrieved on May 11, 2007, from Academic Search Premier.
- Hargreaves, A. (2003). *Teaching in the knowledge society: Education in the age of insecurity*. New York: Teachers College Press.
- Hargreaves, A. & Fink, D. (2006). *Sustainable Leadership*. San Francisco: Jossey-Bass.
- Hargreaves, A, & Goodson, I. (2006). Educational change over time? The sustainability and nonsustainability of three decades of secondary school change and continuity. *Educational Administration Quarterly* 42(1), 3-41.
- Hord, S. M. (1996). *School professional staff as learning communities* [Questionnaire]. Austin, TX: Southwest Educational Development Laboratory.
- King, M. B., & Newmann, F. M. (2000). Will teacher learning advance school goals? *Phi Delta Kappan*, 81, 576 – 580. Retrieved on May 8, 2007, from Academic Search Premier.
- Lee, V. E., & Smith, J. B. (1996). Collective responsibility for learning and its effect on gains in achievement for early secondary students. *American Journal of Education* 104(2), 103-147.
- Levin, M. (1999). Action research paradigm. In D. J. Greenwood (Ed.), *Action research: From practice to writing in an international action research development program* (pp. 25 – 38). Amsterdam: John Benjamins. Retrieved on May 7, 2007, from ebrary.

- Louis, K. S., & Marks, H. M. (1998). Does professional community affect the classroom? Teachers' work and student experiences in restructuring schools. *American Journal of Education*, 106, 532 – 575. Retrieved on May 8, 2007, from JSTOR.
- Louis, K. S., Toole, J., & Hargreaves, A. (1999). Rethinking school improvement. In J. Murphy & K. S. Louis (Eds.), *Handbook of research on educational administration* (2nd ed.) (pp. 251 – 276). San Francisco: Jossey-Bass.
- Macmillan, R. B., Meyer, M. J., & Northfield, S. (2005). Principal succession and the continuum of trust in schools. In H. D. Armstrong (Ed.), *Examining the practice of school administration in Canada* (pp. 85 – 102). Calgary, AB: Detselig.
- Massell, D., & Goertz, M. E. (2002). District strategies for building instructional capacity. In A. M. Hightower, M. S. Knapp, J. A. Marsh, & M. W. McLaughlin (Eds.), *School districts and instructional renewal* (pp. 43 – 60). New York: Teachers College Press.
- McLaughlin M. W., & Talbert, J. E. (2002). Reforming districts. In A. M. Hightower, M. S. Knapp, J. A. Marsh, & M. W. McLaughlin (Eds.), *School districts and instructional renewal* (pp. 173 – 192). New York: Teachers College Press.
- Merriam, S. B., & Simpson, E. L. (2000). *A guide to research for educators and trainers of adults* (2nd ed.). Malabar, FL: Krieger.
- Mitchell, C., & Sackney, L. (2001, February). Building capacity for a learning community. *Canadian Journal of Educational Administration and Policy*, 19. Retrieved on Oct. 20, 2005, from <http://www.umanitoba.ca/publications/cjeap/articles/mitchellandsackney.html>
- Morrissey, M. S. (2000). *Professional learning communities: An ongoing exploration*. Austin, TX: Southwest Educational Development Laboratory. Retrieved on May 8, 2007, from <http://www.sedl.org/pubs/change45/plc-ongoing.pdf>
- Province of New Brunswick. (2007). *When kids come first*. Fredericton, NB: Author. Retrieved on July 12, 2007, from http://www.gnb.ca/0000/publications/4578_report_E.pdf
- Rusch, E. A. (2005). Institutional barriers to organizational learning in school systems: The power of silence. *Educational Administration Quarterly*, 41, 83 – 120. Retrieved on May 8, 2007, from SAGE Full-Text Collections.
- Scribner, J. P., Cockrell, K. S., Cockrell, D. H., & Valentine, J. W. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school improvement process. *Educational Administration Quarterly*, 35, 130 – 160.
- Senge, P., Kleiner, A., Roberts, C., Ross, R. D., & Smith, B. J. (2000). *Schools that learn: The fifth discipline fieldbook for educators, parents, and everyone who cares about education*. New York: Doubleday.
- Slater, L. (2004). Collaboration: A framework for school improvement. *International Electronic Journal for Leadership in Learning*, 8 (5). Retrieved on April 5, 2008, from <http://www.ucalgary.ca/~iejll/volume8/Slater5.html>

- Spillane, J. P. (2002). District policy making and state standards: A cognitive perspective on implementation. In A. M. Hightower, M. S. Knapp, J. A. Marsh, & M. W. McLaughlin (Eds.), *School districts and instructional renewal* (pp. 143 – 159). New York: Teachers College Press.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006) Professional learning communities: A review of the literature. *Journal of Educational Change*, 7, 221 – 258. Retrieved on July 16, 2007, from SpringerLink.
- Togneri, W., & Anderson, S. E. (2003). *Beyond islands of excellence: What districts can do to improve instruction and achievement in all schools*. Washington, DC: Learning First Alliance. Retrieved on May 9, 2007, from <http://www.tep.ucsd.edu/courses/eds280/LeadershipSampler/2District%20Reform/IslandsOfExcell.pdf>
- Wiley, S. D. (2001). Contextual effects on student achievement: School leadership and professional community. *Journal of Educational Change* 2, 1-33.
- Williams, R. B. (2006, May). Leadership for school reform: Do principal decision-making styles reflect a collaborative approach? *Canadian Journal of Educational Administration and Policy*, 53, 1 – 22.
- Wohlstetter, P., Malloy, C. L., Chau, D., & Polhemus, J. L. (2003). Improving schools through networks: A new approach to urban school reform. *Educational Policy*, 17, 399 – 430. Retrieved on July 23, 2007, from SAGE Full-Text Collections.
- Youngs, P. (2001). District and state policy influences on professional development and school capacity. *Educational Policy*, 15, 278 – 301. Retrieved on May 8, 2007, from SAGE Full-Text Collections.
- Youngs, P. (2001). District and state policy influences on professional development and school capacity. *Educational Policy*15(2), 278-301.