Northwest Journal of Teacher Education

Volume 6
Issue 1 *Northwest Passage: Journal of Educational Practices*

Article 6

January 2008

Being There: University Faculty, School Administrators, and Teachers Engaged in School Improvement

David Townsend
University of Lethbridge

Pamela Adams
University of Lethbridge

Recommended Citation
Townsend, David and Adams, Pamela (2008) "Being There: University Faculty, School Administrators, and Teachers Engaged in School Improvement," *Northwest Journal of Teacher Education*: Vol. 6 : Iss. 1 , Article 6.
DOI: https://doi.org/10.15760/nwjte.2008.6.1.6

Being There: University Faculty, School Administrators, and Teachers Engaged in School Improvement

Abstract

University faculty members, district and school administrators, and teams of teachers from seven rural schools worked together for 18 months, seeking to accomplish clearly identified school improvement goals using a collaborative inquiry approach. Five of seven school teams demonstrated increases in collaborative behavior that, in turn, enhanced their ability to accomplish their goals. Four schools showed improvements in student achievement on external exams that were identified as measures related to their goals. Two schools showed minimal improvement on any measures. Lack of improvement was mostly related to changes in team membership, changes in leadership, unresolved conflict, or an inability to sustain focus on a goal. Improvement in student learning was observed and documented in writing and reading skills, numeracy, assignment completion, and classroom behavior. The most apparent aspects of teacher growth were pronounced increases in professional reading, enhanced knowledge of curriculum, improved assessment practices, and shared leadership. However, involvement in the project failed to encourage a majority of teachers to share aspects of their teaching practice with their colleagues. Principals of successful projects were seen to be effective in sharing responsibility, managing conflict, communicating clearly, and ensuring task completion. Less effective principals were seen as more controlling. less willing to delegaie, and not skilful in managing conflict.

Being There: University Faculty, School Administrators, and Teachers Engaged in School Improvement

David Townsend and Pamela Adams,
University of Lethbridge, Lethbridge, Alberta

Abstract

University faculty members, district and school administrators, and teams of teachers from seven rural schools worked together for 18 months, seeking to accomplish clearly identified school improvement goals using a collaborative inquiry approach. Five of seven school teams demonstrated increases in collaborative behavior that, in turn, enhanced their ability to accomplish their goals. Four schools showed improvements in student achievement on external exams that were identified as measures related to their goals. Two schools showed minimal improvement on any measures. Lack of improvement was mostly related to changes in team membership, changes in leadership, unresolved conflict, or an inability to sustain focus on a goal. Improvement in student learning was observed and documented in writing and reading skills, numeracy, assignment completion, and classroom behavior. The most apparent aspects of teacher growth were pronounced increases in professional reading, enhanced knowledge of curriculum, improved assessment practices, and shared leadership. However, involvement in the project failed to encourage a majority of teachers to share aspects of their teaching practice with their colleagues. Principals of successful projects were seen to be effective in sharing responsibility, managing conflict, communicating clearly, and ensuring task completion. Less effective principals were seen as more controlling, less willing to delegate, and not skilful in managing conflict.

Introduction

The province of Alberta, Canada, has approximately 2,000 schools, almost all of which are expected to ensure that the highest possible percentage of their students achieve an acceptable standard on external Provincial Achievement Tests administered at the end of grades 3, 6, 9 and 12. Students in grade 3 write exams in Mathematics and Language Arts. In grades 6 and 9 there are four exams --- Mathematics, Language Arts, Science, and Social Studies. At the end of grade 12, students are tested in all academic subjects, with the external exams counting for up to 50% of a student's final grade. Successive studies conducted over the last six years (see, for example, Adams & Townsend, 2006) have produced sound evidence that the great majority of Alberta schools can guarantee the great majority of their students will meet or exceed acceptable levels of achievement on all of these external measures. In schools serving communities with higher socio-economic

status, the challenges of achievement testing are not so severe. However, in schools where larger numbers of students and parents experience a greater degree of economic disadvantage, student achievement on these external exams is far more problematic. Such schools need more support if they are to compete effectively with their more advantaged counterparts in the same system.

This is where university faculties of education can play a key role. Student teachers in various stages of practice teaching can contribute time and in-class assistance to individual teachers as they try to attend to the needs of every child. Interns ---student teachers in their final, 13-week practicum --- can be even more useful, serving almost as team-teaching peers for classroom teachers. In addition, student-teacher placements can be longitudinal, assuring schools and teachers that extra assistance will be available on a regular schedule over a number of consecutive years. This one small change has helped many schools plan and complete their government-funded school-based projects that typically last 2-3 years.

But it's the purposeful involvement of faculty ---over time --- that can help bring about more substantial changes in school improvement, teacher development and student learning. Working in school teams, following a model of collaborative inquiry, and helping school-based educators adhere to rigorous standards of evidence-based practice, university faculty members can make a contribution to changes in teaching practice that have both immediate and long-term positive impact on learning outcomes and student achievement.

University faculty members can help teachers make valuable connections between current research and their own professional development. They can promote a climate of inquiry, provide skills in data collection, data analysis, and report writing, and bring an enthusiastic and curious perspective to the day-to-day work of teachers. Because they are not in a supervisory or hierarchical relationship with schools, faculty members can help foster an ethos of joint responsibility among teams of educators excited about school improvement. *Joint responsibility* (Ridley, 1996) is seen to promote notions of being "the best we can be" as opposed to *accountability*, which seems to support the idea that "we should just do enough".

This paper presents a brief summary of an 18-month action research project conducted with seven schools in one Southern Alberta school district. It involved 45 teachers, seven principals, two district office administrators, and two university faculty members. This report does not attempt to present only positive results. Rather, it shows school improvement as it really is in most schools that are willing to take up the challenge.

Related Literature

Influential literature on school improvement and change in Canada (Earl & Lee, 1999; Leithwood, Leonard, & Sharratt, 2000) indicates that schools move forward when they are able to align many internal variables such as mission, vision, goals, values, culture, organizational structure, knowledge, and resources with external variables such as policy initiatives, funding, expertise, and expectations. Moreover, "principals working with teachers are essential to the development of collaborative cultures" (Fullan, 2006b, p. 17), and school improvement appears to be dependent, ultimately, on the ability of school staffs to work collaboratively to such a degree that they are able to share and solve, over time, "problems of instructional practice at ever-increasing levels of complexity and demand" (Elmore, 2004, p. 254). Such schools are increasingly referred to as learning organizations (Senge, Cambron-McCabe, Lucas,

https://pdxscholar.library.pdx.edu/nwjte/vol6/iss1/6
DOI: 10.15760/nwjte.2008.6.1.6

Smith, Dutton, & Kleiner, 2000), professional learning communities (DuFour, DuFour, Eaker, & Karhanek, 2004), or communities of practice (Wenger, McDermott, & Snyder, 2002).

Action Research as a School Improvement Protocol

Productive models of professional development incorporate processes of inquiry and transformation (Mezirow, 1991). In Alberta, those processes have long been associated with action research (Calhoun, 1994; Schmuck, 1997). Two Alberta authors, Carson and Sumara (1992), suggest several reasons for a shift in education toward action research methodologies, the most compelling of which is that action research provides a bridge across the perceived gap in understanding between educational practitioners and research theorists.

Models of Action Research and Inquiry

Action research is characterized by spiraling activities of planning, acting, observing, and reflecting (Berg, 2001; Kemmis & McTaggart, 1988; Schmuck, 1997). The notion that the most unique and critical characteristic of action research is its iterancy can be attributed to one of its earliest proponents, Kurt Lewin (1946), whose concept of reconnaissance also appears in many other models of action research (see, for example, Elliott, 1991; McKernan, 1996).

Collaborative Inquiry

In the course of this project, the term action research was replaced by collaborative inquiry (Adams, 2007) to describe the process as it was experienced by many participants. Collaborative inquiry occurs when a group of individuals commits to exploring an answer to a compelling question through a cyclical process of experimentation, purposeful action, and public reflection. (Argyris, 1985; Bray, 2002; Diaz-Maggioli, 2004; Emihovich & Battaglia, 2000; Sagor, 2000; Zeichner, 2003). All the experiences, skills, and knowledge of participants are seen as equally valuable, providing alternative filters through which to view the inquiry (Huffman & Kalnin, 2003; Jarvis, 1999; McTaggart, 2003). An atmosphere of safety and support encourages participants to risk sharing new ideas and engaging in collaborative discourse versus congenial discussion (Argyris, 1985; Huffman & Kalnin, 2003; Sagor, 2000). Collaborative inquiry is a strategy for teams of educators striving "to learn their way out of workplace difficulties" (Bray, 2002, p. 84). It focuses on relevant questions chosen by the participant-researchers (McTaggart, 2003; Zeichner, 2003). When they engage successfully in collaborative inquiry, practitioners can enjoy improved teaching practices, increased confidence, enhanced collaborative skills, and a greater sense of empowerment (Diaz-Maggioli, 2004; Jarvis, 1999; Zeichner, 2003).

Professional Development as Adult Learning

An expanding body of literature draws analogies between educators' professional development and the principles of adult learning. Both have voluntary and self-directed characteristics (Bray, 2002; Brookfield, 1986; Knowles, 1984; Lawler, 2003; Mezirow, 1991; Rogers, 2002; Zeichner, 2003); both promote collaboration (Butler et al, 2004; Diaz-Maggioli, 2004; Kasl & Yorks, 2002; Mezirow, 1991; Rogers, 2002); and both occur best in a respectful climate (Brookfield, 1986; Emihovich & Battaglia, 2000; Wlodkowski, 1999).

Schools as Communities of Learners

The impact of the learning community phenomenon throughout the education system has been profound. What started as a faint metaphor passed quickly through stages of fad

and trend until it became, arguably, the most commonly applied descriptor of educational institutions across North America.

Current understandings of the term *learning community* may have their origins in the writings of Dewey (1938). As well, the term has some connection to Schön's (1973) description of *learning systems* which, he contends, are institutions capable of bringing about their own transformation, and it is closely related to Senge's (1990) concept of the *learning organization*. Noddings (1985) writes of classrooms and schools as *caring communities*, while Barth (1990, 2001) may be the first of many authors to use the phrase a *community of learners* in purposeful reference to schools engaged in learning that supports reform and innovation. Similarly, Sergiovanni (1994) refers to the development of communities of practice an effective way of improving schools. Sergiovanni's references to *communities of practice* have a parallel in the theories of Etienne Wenger (see, for example, Wenger, McDermott, & Snyder, 2002), whose writing, in turn, is sometimes evocative of Dewey.

In the United States, the National Commission on Teaching (2003) pronounced that "Communities of learning...must become the building blocks that establish a new foundation for American schools" (p. 13). In Alberta, there is similarly not much room for doubt about the role of learning communities in the province's schools. The Alberta Learning Commission Report (2003) offers as Recommendation #13 that "All schools will function as Professional Learning Communities" (p. 52).

In concert with these political initiatives, Richard DuFour and his colleagues have done most to popularize the term *professional* learning community. It is quite apparent that the model of learning communities most commonly accepted in North American schools is that promoted by DuFour and Eaker (1998); DuFour, Eaker and DuFour (2002); DuFour, DuFour and Eaker (2003); and DuFour, Eaker, DuFour and Karhanek (2004). However, any assumptions about the power of professional learning communities need to be checked against the following caution sounded by Fullan (2006). Professional learning communities are in fact about establishing lasting new collaborative cultures. Collaborative cultures are ones that focus on building the capacity for continuous improvement and are intended to be a new way of working and learning. They are meant to be enduring capacities, not just another program innovation. (p. 10)

Methodology

The following action research protocol (Townsend & Adams, 2002) was employed in the preliminary stages of this project.

- Define the focus or the problem. Ask the "right" questions (e.g. What is the next thing I have to know more about in my classroom or in my teaching?) Reflection begins.
- Collect information. Read the literature, consult with colleagues, talk to experts and others with experience. Reflection continues.
- Make sense of the information. What is relevant? What is do-able? What can be modified and adapted to suit particular circumstances? What must be done with conflicting information?
- Report and discuss. Preliminary conclusions and potential courses of action need to be shared.
- Plan action. A written plan should be one of the products of this stage.
- Take action. Put plans into effect. Reflection in and on action, alone and with colleagues, can make efforts more

purposeful.

- Gather evidence. Document carefully. Regularly share reports of progress.
- Analyze and evaluate in a continuous way. Try to make sense of what's happening, and why. Refocus, as necessary. Persevere.
- Assess achievements. Use all available evidence to determine what has been accomplished, what may have gone wrong, and why.
- Publish results and conclusions. Share within and beyond your immediate group, beyond the institution.
- Celebrate. Not only when the project is finished, but whenever it is appropriate to do so. Take time to "relax" and consolidate learning and other gains.
- Future action. Create the next question and begin the process again.

This study involved bi-methodological data collection and analysis (Greene, 2005). The sample comprised, first, 52 educators in seven schools who volunteered to participate in response to an invitation from the district's central office administration. Two university faculty of education researchers and two central office administrators made up the external team. The study incorporated three facilitating structures critical to project success. First, internal meetings involving the principal and team teachers were held every month at each school site. In addition, external teams meetings ---also held every month and also at the school site --- included the school-based team as well as one or two central office administrators, and one or two university researchers. Finally, district level meetings were held twice each year. They included all participants and, sometimes, the Superintendent and members of the school board.

Survey, interview, focus group, and observational data were generated by the university researchers, the central office external team members, and the school teams, to present a comprehensive answer to the research question:

In what ways and to what extent does an increased emphasis on collaborative inquiry-based professional development impact student learning?

Findings and Discussion

The findings of this study provide some graphic insights into the practical, educational, and personal dimensions of school improvement, particularly when the school improvement initiative is planned as part of a research project in which the uses of data and evidence play an important role. An assumption underlying all project planning was that what teachers and principals actually do as a major part of their professional development should be linked directly to their project goal, their school's educational plan, and their individual professional growth plans.

As assessed by the external team members, and verified by school surveys, the development of schools as learning communities proved to be a very complex process. Most school staffs began their involvement in this project believing they were already functioning as a learning community, yet most finished their projects believing they still had a long way to go. Five teams were found to function with increasing effectiveness (that is, they were better able to demonstrate the achievement of agreed-upon goals) as the project progressed. Two less effective teams were seen to exhibit characteristics of individualization, privatization, disengagement--- even isolation--- as they wrestled with the challenge of responding appropriately to the evidence of what they were accomplishing, and why. On an analytical scale refined over the course of the study, the more successful school teams were seen to function as *adaptive* or *generative* communities of prac-

tice, defined as those that exhibit high levels of such things as initiative-taking, productivity, enthusiasm, mutual respect, a focus on learning, goal achievement and hopefulness on a total of thirty distinct characteristics across five dimensions ---Mission and Vision, Leadership, Culture, Learning, and Organizational Structure (Townsend & Adams, 2003).

Alternately, the two less successful school teams more frequently exhibited patterns of behavior and attitude more consistent with *benign, reactionary, or withdrawn* communities, as defined by Townsend and Adams (2003). Specifically, they occasionally appeared to be functioning very far away from the ideals of a learning community, frustrated by unresolved conflict and, at times, passive and unresponsive to ideas and opportunities.

While team commitment varied from site-to-site --- and over time in each site --- the *overall* level of commitment of the 56 educators was moderately-high to high for the duration of the project. Nevertheless, it was instructive to observe how quickly some school teams began showing signs of inadequacy when just one or two members decided to disengage, or when conflict was mismanaged, or when the evidence of accomplishment appeared to reflect badly on team members. A continuing responsibility of external team members was to re-confirm that improvement was occurring at an acceptable rate and that variations in that rate from month-to-month were to be expected. A major responsibility of school principals was to be seen by their staff members as being willing and able to deal with conflict.

In fact, it was not conflict *per se* that caused problems for teams. Rather, it was *unresolved* conflict ---some of it dating back years --- that most frequently threatened team cohesion and goal-achievement. One of the most successful teams was made up of colleagues who did not necessarily love each other but learned, over time, to set aside personal differences and respect each others' contributions to team success. In one of the less successful teams, months of recalcitrance followed by an explosive outburst from just one teacher ("I don't teach Math that way and I'm not going to change!!!) caused great distress for all the other team members, not so much because of what she said, and the way she said it, but because the principal never attempted to use his leadership authority to intercede and protect the interests and sensibilities of the majority of his staff.

An irony of school improvement presented itself early and often during this project. Some schools that progressed too quickly, or provided too much evidence of success, experienced strong negative reactions from other schools, some involved and some not involved in the project. On a few occasions, external team members were advised not to make public references to schools whose successes were exemplary because such comments were offensive to educators in other schools, and caused discomfort for members of the successful teams. These findings suggest that the growth of collaborative cultures and the ability of the school district to nurture them remained uncertain throughout the project.

Over the course of the study, student *achievement*, as measured by provincial achievement tests, increased in four of seven schools, declined slightly in one school, and declined more sharply in the remaining two. In one of those two schools, there was a complete change of team membership in the second half of the project. In the other, team membership was expanded mid-way through the project and, from then on, that group could never come to a firm conclusion about their project goal ---and best ways to achieve it --- even after meeting twice a month for almost eight months. It was not a goal of every project that schools would show

https://pdxscholar.library.pdx.edu/nwjte/vol6/iss1/6
DOI: 10.15760/nwjte.2008.6.1.6

improvement on specific provincial exams but, as the project came to its close after only eighteen months, political pressure mounted on project teachers who had responsibility for grades 3, 6, 9 and 12 to show that their involvement helped their students do better on external exams. While a majority did, achievement test results were probably not a very reliable measure of the full effect of project participation, given the short timelines and the variety of themes associated with this project.

Participants' overall ratings of the effectiveness of this form of professional development in enhancing student and teacher *learning* remained high for the duration of the project. Perhaps the biggest change in this area was the dramatic increase in teachers' professional reading. A second impressive element of change was in teachers' enhanced knowledge of the curriculum. A third substantial area of improvement was in teachers' knowledge and use of differentiated assessment practices. Similarly, evidence of student learning was increasingly revealed through samples of improved writing, increases in unit test scores, applications of self-assessment, project and assignment completion according to carefully constructed rubrics, integration of technology, and strategic sampling of changes in performance of students who were originally assessed as being above average, average, and below average in selected subject areas. A large majority of teacher participants were prepared to put up with the inconvenience of extra meetings, and what seemed like extra work, to have the time to collaborate with fellow-educators and work through their professional challenges in a systematic, rigorous way.

Five out of seven school teams showed increased skill in using data, or evidence, to verify the impact of changes in teaching practice on student motivation and student engagement. However, a lingering concern for many teachers was their growing awareness of the discipline that is required of school staffs if they are to get full benefit from their participation in evidence-based practice. At every meeting, teams reported first on what they had done. Considerable meeting time was then devoted to making sense of what had been accomplished so it could contribute to team learning, and to the expanding database that comprised the evidence of goal-achievement. Initially, many teachers were uncomfortable with this part of the process. Most had assumed that the external team members would be the ones to take responsibility for determining success or failure. It was a form of cultural change when teachers, in growing numbers, took the lead in this area.

Meetings ended with participants telling each other what they would do before the next two meetings to help their team achieve its goals. This, too, was something with which most participants showed considerable discomfort. It was one of the more important outcomes of this project that so many participants were seen to develop strength and skill in this area --- being able to follow through on decisions they had made to improve aspects of their professional lives and their school's progress.

Teacher learning grew out of these opportunities to explore with each other and make sense of the meaning of the evidence. This is one reason why school improvement seems so slow and why it proceeds so unevenly. Teachers are not able to change things they are not willing to acknowledge. Moreover, a *telling strategy* does not work very well in school improvement. Teachers need time, a sense of safety, and a sense of autonomy if they are to take increasing responsibility for the changes they will make in their own practice. Enforced change produces compliance at best. It may also engender subversion.

During this project, school teams provided some information about the usefulness of

goals that raised some questions about an established practice. Broad provincial and district goals were seen as being of little importance to school teams and they were rarely discussed during this project. School goals were somewhat more useful for the specific work that each team accomplished. Successful teams were those that were able to align their own project goal with one or more school goals, break their goal down into very small activities and measures, and gather and analyze their evidence of achievement every few weeks. The more time that elapsed between team meetings, the less likely school teams were to stay focused on their goals.

One unanticipated positive outcome of this project was the volume of new resources and learning materials created by school teams. Some of these artifacts---a comprehensive writing scale for K-6, a complete kit of pre-school teaching aids, thematic units, common assessments, and innovative uses of new technology, for example--- were quickly moved into broader distribution throughout the district, and a few have been adapted for commercial development.

The growth of shared leadership was another positive outcome of the study. It was revealed through teams' more effective uses of data, more teacher involvement in sharing new skills and knowledge with colleagues, more mentorship, more obvious improvements in assessment for learning, broader curriculum expertise, and more confidence in reporting to parents. The most successful projects were those in which the highest levels of shared leadership were attained. Because so many participants used their involvement in the project to further their career goals, capacity-building was also seen as a corresponding positive outcome of the initiative.

The development of principals' leadership skills proceeded unevenly throughout the project. One principal had difficulty sharing power and control with external team members. Another was unable to adjust his personal view of his own effectiveness to the one that was confirmed more frequently through evidence gathered during the project. Specifically, this principal thought he was an excellent listener. However, in most meetings, he dominated the discussion, often speaking on behalf of teachers when they clearly did not want him to do so. One other principal displayed some continuing reluctance to take responsibility for a project in the middle of its term. Five principals showed steady progress in the development of critical skills such as conflict management, acknowledging the contributions of others, helping maintain team spirit and focus, and sharing responsibility. (One principal resigned, and several took new assignments over the 18 months of the project).

While some exchanges of classroom visits, conversations about each others' teaching, demonstrations of teaching methods, and team teaching experiences were reported in every school site, the least effective part of this initiative was its failure to encourage most teachers to regularly share aspects of their normal classroom practice with colleagues. Unfortunately, at the point where more progress could have been accomplished --- and where teachers felt correspondingly most vulnerable --- professional learning and improvements in practice were least observable. Most classrooms remained closed to direct observation. Many changes in teaching practice were reported, and verified by self-report artifacts of student learning and performance, but most teachers declined requests for greater access to their classrooms.

The composition of the project teams that included school personnel, district office staff, and university researchers was seen by a large majority of participants as being important to project success. However, in one school, relationships suffered extensively because of unre-

https://pdxscholar.library.pdx.edu/nwjte/vol6/iss1/6
DOI: 10.15760/nwjte.2008.6.1.6

solved differences between the school staff and some external team members. In another school, the contributions of some external team members were not highly valued by a few school-team members. Regularity of contact and clarity of expectations were two related elements that contributed to project continuity. Alternately, when visits by external team members were postponed for any reason, there was a greater likelihood that project tasks would also be deferred.

Finally, the lack of continuity of team membership proved to be detrimental to goal-achievement. In this one project, covering 18 months and seven schools in a fairly normal rural district, there were five changes of principals, and approximately a 25% changeover in team membership across the seven schools.

Conclusion

The findings of this study should challenge educators to examine their assumptions about such things as the readiness of school staffs to respond to educational innovation, the usefulness of research in driving school improvement, the speed with which school improvement can happen, the reality of connections between teacher professional development and student learning, the limitations of collaboration, and the power and authority of school leaders --- and educators external to the school --- to influence school improvement in a positive way. Using resources that were available to all schools in the district, this project contributed to some improvements in teacher learning, student learning, capacity building, and the generation of new skills and knowledge across many different contexts. However, it did not have the same impact in each school site, it did not influence changes in teaching practice to the extent that many participants had hoped and, clearly, project involvement may have complicated the work-lives of some educators whose preferred ways of working were more solitary, more in keeping with deeply established norms of privatization.

School improvement is messy, difficult and demanding. Progress is unsteady within each school site and across sites. Mistakes happen frequently. Misunderstanding is sometimes the normal state of affairs. The need for general improvement in many areas encourages a quick-fix mentality. There is never enough time to do things right but always enough time to do things the wrong way over and over again. In short, it's like trying to improve most organizations, most communities. In practice, the purposeful commitment, and the potential for greater success, of a majority of capable and well-intentioned educators can be jeopardized by a relatively small number of negative, reactionary, or obstructive colleagues. It has often been said that the principal, alone, could not make school improvement happen but the principal, alone, could ensure that it did not happen. To that we could add a similar sentiment about very small numbers of teachers.

Most principals and teachers know that most of the easy solutions to their problems have already been tried but they are hopeful people and, amazingly, many of them can still be sold on the latest fad, the next savior of the month, the one-and-only program. The history of school improvement initiatives is replete with examples of short-term commitment and short-term failure. It is a huge challenge for school teams to concentrate for extended periods of time on one or two key strategies for improvement that *they* have selected --- the umbrella structures and methods that will ensure continuous growth and success, over time. There is so much noise in the system, so much commodification of programs and panaceas, so many experts, and so much false pressure from so many competing sources.

Still, schools do improve. Teams of car-

ing and skilful educators make it happen. Some may argue that *real* school improvement cannot occur one school at a time. Our conclusion, drawn from this and many other initiatives, is that it can *only* happen one school at a time.

References

Adams, P. (2007). Action research as a model to guide collaborative school improvement. *Journal of Best Practices*. (in press).

Adams, P., & Townsend, D. (2006, Fall). Principal leadership: Bridging the gap between the real and the ideal. *Alberta Teachers' Association Magazine*. Edmonton: ATA.

Alberta Learning (2003). *Every child learns:* Every child succeeds. Report of the Alberta Learning Commission.

Argyris, C. (1985). *Action science*. San Francisco: Jossey-Bass.

Barth, R. (1990). *Improving schools from within*. San Francisco: Jossey-Bass.

Barth, R. (2001). *Learning by heart*. San Francisco: Jossey-Bass.

Berg, B. (2001). Action research. *Qualitative Research Methods for the Social Sciences*. Toronto: Allyn and Bacon.

Bray, J.N. (2002). Uniting teacher learning: Collaborative inquiry for professional development. *New Directions for Adult and Continuing Education*, 94.

Brookfield, S.D. (1986): Adult learners' motives for learning and implications for practice. In *Understanding and Facilitating Adult Learning* (pp. 1-39). San Francisco: Jossey-Bass Inc.

Butler, D.B., Beckingham, B., Novak Lauscher, H., & Jarvis-Selinger, S. (2004). Collaboration and self-regulation in teachers' professional development. *Teaching and Teacher Education*, 20, 435-455.

Calhoun, E. (1993). Action research: Three approaches. *Educational Leadership. October*, 62-65.

Calhoun, E. (1994). *How to use action research in the self-renewing school.* Alexandria: ASCD.

Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research*. Philadelphia: Falmer.

Carson, T., & D. Sumara, (Eds.) (1992). *Exploring collaborative action research. Proceedings of the Ninth Invitational Conference of the Canadian Association of Curriculum Studies*. Edmonton: University of Albert Press.

Dewey, J. (1938). *Education and experience*. New York: MacMillan.

Diaz-Maggioli, G. (2004). *Teacher-centered professional development*. Alexandria, VA: ASCD, 25-45, 58-73.

DuFour, R., DuFour, R., & Eaker, R. (2003). Building a professional learning community: Centre office support for learning communities. *The School Administrator*, 60(5), 13-18.

DuFour, R., & Eaker, R. (1998). *Professional learning communities at work.* Virginia: Association for Supervision and Curriculum Development.

DuFour, R., Eaker, R., DuFour, R., & Karhanek, G. (2004). Whatever it takes. Bloomington, IN: National Educational Service.

DOI: 10.15760/nwjte.2008.6.1.6

Eaker, R., DuFour, R., & DuFour, R. (2002). *Getting started.* Bloomington, IN: National Educational Service.

Earl, L., & Lee, L. (1999). Learning for change: School improvement as capacity building. *Improving schools*, 3(1).

Elliott, J. (1991). *Action research for educational change.* London: Allen & Unwin.

Elmore, R. (2004). *Reform from the inside out.* Cambridge: Harvard University Press.

Emihovich, C. & Battaglia, C. (2000). Creating cultures for collaborative inquiry: New challenges for school leaders. [Electronic Version]. *International Journal of Leadership Education,* 3,3, 225-238.

Fullan, M. (November, 2006). Leading professional learning. *The School Administrator.* 10, 63, 10-14.

Goodnough, K. (2005). Fostering teacher learning through collaborative inquiry. *The Clearing House*, 79, 2, 88-92.

Greene, J. (2005). The generative potential of mixed methods inquiry. *International Journal of Research & Method in Education*, 28(2), 207-211.

Huffman, D., and Kalnin, J. (2003). Collaborative inquiry to make data-based decisions in schools. [Electronic version]. *Teaching and Teacher Education*, 19, 569-580.

Jarvis, P. (1999). *The Practitioner-Researcher: Developing theory from practice.* San Francisco: Jossey-Bass Inc.

Kasl, E., & Yorks, L. (2002). An extended epistemology fro transformative learning theory and its application through collaborative inquiry. *TCRecord Online* http://www.tcrecord.org/Content.asp? ContentID=10878. Retrieved July 19, 2006 from http://www.scu.edu.au/schools/gcm/ar/whyar. html.

Kemmis, S., & McTaggart, R. (Eds.) (1988). T*he action research planner 3rd edition.* Australia: Deakin University Press.

Knowles, M. (1984). Andragogy in action. Introduction: *The Art and Science of Helping Adults Learn* (pp. 1-21). San Francisco: Jossey-Bass Publishers.

Lawler, P.A. (2003). Teacher as adult learners: A new perspective [Electronic version]. *New Direction for Adult and Continuing Education,* 98, 15-22.

Leithwood, K., Leonard, L., & Sharatt, L. (2000). Conditions fostering organizational learning. In Leithwood, K. (Ed.), *Understanding schools as intelligent systems.* Stanford: JAI.

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues,* 2.

McFarland, K., & Stansell, J. (1993). Historical Perspectives. In L. Patterson et al (Eds.), *Teachers are researchers: Reflection and action.* Newark, Del.: International Reading Association.

McKernan, J. (1996). *Curriculum action research: A handbook of methods and resources for the reflective practitioner.* London: Kogan Page.

McTaggart, R. (1989). *Proceedings of the Third World Encounter on Participatory Research. 16 tenets of Participatory Action Research*, Managua, Nicaragua. Retried on July 14, 2006 from http://www.caledonia.org.uk/par.html.

McTaggart, R. (2003). *The mission of the scholar in action research.* Retrieved July 7,

2006 from http://www.scu.edu.au/schools/gcm/ar/w/McTaggart.pdf.

Mezirow, J. (1991). Fostering transformative adult learning. *Transformative Dimensions of Adult Learning*. (pp. 196-226). San Francisco, CA: Jossey-Bass Inc.

Mezirow, J. (1999). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

National Commission on Teaching and America's Future (2003). *No dream denied: A pledge to America's children*. Washington, DC: Author.

Noddings, N. (1985). In search of the feminine. *Teachers' College Record,* 87(2). 195-201).

Rogers, A. (2002). The nature of learning what is it...? *In Teacher Adults* (pp. 85-116). Berkshire, UK: McGraw-Hill.

Sagor, R. (2000). *Guiding school improvement with action research* (pp. 189-189). Alexandria, VA: ASCD.

Schmuck, R. (1997). *Practical action research for change*. Arlington Heights: Skylight.

Schön, D. (1973). *Beyond the stable state: public and private learning in a changing society*. Harmonsworth: Penguin.

Senge, P. (1990). *The fifth discipline*. New York: Doubleday.

Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Duton, J., & Kleiner, A. (2000). *Schools that learn*. New York: Doubleday.

Sergiovanni, T. (1994). *Building community in schools*. San Francisco: Jossey-Bass.

Townsend, D. (2001). *Action research: Facilitation and implementations*. Edmonton, AB: Alberta Teachers Association.

Townsend, D., & Adams, P. (2002). *Collaborative action research in education*. Paper presented at Internacional de Investigacion y Desarrollo Educativo en Educacion Superior Technologicia. Queretaro, Mexico.

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice*. Boston: Harvard Business School.

Wlodkowski, R.J. (1999). What motivates adults to learn. I*n Enhancing Adult Motivation to Learn* (pp. 67-88). San Francisco: Jossey-Bass Inc.

Zeichner, K. (2003). Teacher research as professional development for P-12 educators in the USA [Electronic version]. *Education Action Research,* 11, 2, 301-325.

https://pdxscholar.library.pdx.edu/nwjte/vol6/iss1/6
DOI: 10.15760/nwjte.2008.6.1.6