Go Back

Introduction and Application of Inquiry and Communication Tools in Planning for Systemic Educational Change

Dr. Micah Fierstein, 1710 SW Harbor Way #402, Portland, OR 97201
Director of the Change Institute
(503) 222-6448
E-mail: mfierst22.aol.com

Abstract

This paper presents key findings from a qualitative study which explored how one elementary school site council learned and adopted a set of tools to increase their collective ability to work together and lead school improvement activities. The communication and inquiry tools introduced to this site council were drawn from learning organization theory and learning organizations.

The results indicated that the tools increased the site council members= individual and collective capacity to listen, engage, trust, and work effectively with each other. These aptitudes were developed through the use of the tools in six areas: (a) becoming aware of one=s own thinking, (b) making one=s thinking visible and transparent to others, (c) understanding the thinking of others, (d) seeing one=s interactions from a systems perspective, (e) engaging in collaborative decision-making, and (f) capturing and documenting learning. These aptitudes and activities increased the members= awareness in three capacity building dimensions: self, others, and the system.

Introduction

This paper examines how one elementary school site council learned and adopted a set of tools designed to improve patterns of communication and ability to work as a team. During a 19-month period, the site council was introduced to a selected set of communication and inquiry tools drawn from learning organization theory and organizations who are seeking to become learning organizations (see Appendix A). Council members learned the tools, practiced them, reflected on their practice, and then integrated these tools and the learning they generated into their planning and activities. The site council, made up of teachers, support personnel, the school principal, parents, and community members, requested the tools to increase their collective ability to work together as a team and lead school improvement activities.

The objective of this paper is to encourage conversations on the use of organizational learning tools to build educators, parents, and community members' capacity to implement systemic innovation in schools.

Historical Perspective - Tinkering with Utopia

Historically schools have served as the focal points in the debate about how to define the present and shape the future (Tyack & Cuban, 1995). The recent wave of criticism directed at schools began in the 1980s with the release of several national reports on the state of education in the United States (cited in Fullan, 1993): National Commission on Excellence in Education (1983), the

Carnegie Forum on Education and the Economy (1986), and the National Governors Association (1986). Reports such as *A Nation at Risk* (U.S. National Commission on Excellence in Education, 1983), *Investing in Our Children* (Committee for Economic Development, 1985), and *A Nation Prepared: Teachers for the 21st Century* (Carnegie Forum on Education and the Economy, 1986) documented low student achievement and high dropout rates (as cited in Newmann, King, & Redgon, 1997).

Though there was a growing consensus for the need for comprehensive school reform, the proposed solutions to meet this desired outcome took two different paths. One direction was Aintensification≅ which took the form of top-down solutions generated at the state level (Fullan, 1991). Such efforts include Aincreased definition of curriculum, mandated textbooks, standardized tests tightly aligned with curriculum, specification of teaching and administrative methods backed up by evaluation, and monitoring≅ (Fullan, 1991, p. 7). The other direction was Arestructuring,≅ focusing on school-based management. These efforts included:

> Enhanced roles for teachers in instruction and decision-making, integration of multiple innovations; restructured timetables, supporting collaborative work cultures; radical reorganization of teacher education; new roles such as mentors, coaches, and other teacher leadership arrangements. (Fullan, 1991, p. 7)

Studies examining the effect of intensification and restructuring show that many of these reforms fell short of the expectation of their supporters. Corbett and Wilson (1991) noted several unintended consequences of state-level reform initiatives, including moving attention away from more basic reforms and reduced teacher motivation. Taylor and Teddile=s (1992, as cited in Fullan, 1993) study of 33 schools which examined the effectiveness of site-based restructuring programs altering governance procedures found no difference in teaching strategies and student learning in schools that participated in these programs and those that did not. In 1991, Easton examined the effectiveness of local school improvement plans mandated by the Chicago Reform Act of 1989. He reported that the majority of elementary teachers claimed that school reform had not changed their methods of instruction nor were they changed as a result of school improvement plans (as cited in Fullan, 1993). Odden and Marsh reported in their 1988 study that state leadership can have a positive impact on school reforms if it is coordinated with local districts and school development, the key variable being local district capacity (as cited in Fullan, 1993).

In summary, the research evaluating the reforms of intensification and restructuring reinforces the notion that change in schools is far more complex than first anticipated. Fullan (1991) noted many of the current reform initiatives are systemic in their design. He defines these structures as being Amore comprehensive both vertically (across classroom, school district, and state) and horizontally (incorporating more holistic elements of reform)≅ (Fullan, 1991, p. 16). A systems approach to school reform views assessment, curriculum and instruction, staff development, personnel selection and promotion, and state or district school actions as linked rather than separate elements (Fullan, 1993).

Hargreaves= (1997) research reinforced the importance of viewing school reform from a systems perspective. After his review of the literature on educational reform from the last decade (Berman &

McLaughlin, 1997; Fullan, 1991, 1993; Fullan & Hargreaves 1996; Hargreaves, 1994; Hargreaves, Earl, & Ryan, 1996; Louis & Miles, 1990; McLaughlin, 1990; Miles & Huberman, 1984; Newmann & Wehlage, 1995; Rudduck, 1991; Sarason, 1990; Stoll & Fink 1996), Hargreaves (1997) cites the following reasons for educational change initiatives failing or faltering:

1. The reason for the change is poorly conceived or not clearly demonstrated. It is not obvious who will benefit and how. What the change will achieve for students is not spelled out.
2. The change is too broad and ambitious so that teachers have to work on too many fronts, or it is too limited and specific so that little change occurs at all.
3. The change is too fast for people to cope with, or too slow so they become either impatient or bored and move on to something else.
4. The change is poorly resourced or resources are withdrawn once the first phase of innovation is over. Often there is not enough money for materials or time for teachers to plan.
5. There is no long-term commitment to the change that will carry people through the anxiety, frustration, and despair of early experimentation and unavoidable setbacks.
6. Key staff members who can contribute to the change, or might be affected by it, are not committed. Conversely, key staff might become over involved as can administrative or innovative elite, from which other teachers feel excluded
7. Parents oppose the change because they are kept at a distance from it. Professionals can collaborate enthusiastically, yet isolate themselves that they involve the community too little or too late, and lose a vital form of support that successful schoolwide change depends.
8. Leaders are either too controlling, use ineffectual tools, or cash in on the early success of the innovation and then move on to higher things.
9. The change is pursued in isolation and gets undermined by other unchanged structures. . . . Conversely, the change may be poorly coordinated with and engulfed by a tidal wave of parallel changes that make it hard for teachers to focus their efforts. (p. viii)

Hargreaves= (1997) reasons for failure of change efforts in schools support Peter Senge=s research on learning organizations (Senge, 1990a, 1990b; Senge et al., 1994). The fourth, seventh, and ninth findings articulate systems problems: inadequate funding, premature withdrawal of resources, the lack of materials and financial resources to supporting planning, the distancing of parents from reforms, the undermining of change efforts by existing structures, and failure to deeply involve the community in change projects. The first finding articulate the consequences of not understanding how our mental models influence how we understand the world and how we take action: our inability to conceptualize and explain the reason behind reforms and how these will affect students. The fifth and sixth findings note the consequences of failing to have a shared vision: lack of a long-term

commitment to the organizational change, the inability to contain the anxiety associated with experimentation, and the resentment triggered by reforms lead by isolated leaders. The second and third findings detects the problems associated with team learning: the difficulties of coordinating and implementing ambitious changes across disciplines and the challenges of working with divergent responses to the pace of changes. The eighth finding discerns the challenges associated with lack of personal mastery: ineffectual leadership skills or the inability to understand how personal needs interact with institutional needs.

Hargreaves= (1997) findings challenge educators to gain skills to better understand how the parts of educational systems relate to the whole (systems thinking), how our internal beliefs and assumptions (mental models) influence how Awe understand the world and how we take action≅ (Senge, 1990a, p.6), how we can collectively learn together (team learning), and, how we can develop clarity in what is most important to us and master skills to achieve them (personal mastery). This study the paper reports on was the examination of set of communication and inquiry tools

This paper presents a set of tools that develops those skill that Hargreaves' research finds lacking in educational change initiatives. It examines the transfer of learning organization tools used in leading edge corporations into a school setting.

Methodology

The researcher used a qualitative case study method to examine an elementary use of a specific set of communication and inquiry tools. The tools were introduced to the site council through a learning contract with the Change. The elementary school site council initiated the contract, identified the areas of learning, and concluded the contract when it felt members had achieved the skills desired. The Change Institute, a program directed by the researcher, had used a variety of tools in other learning contracts with public schools and non-profit organizations. Based on previous experience, the researcher unilaterally chose an initial set of tools to use in the site council=s learning sessions. As the site council=s needs developed, additional tools were selected and introduced.

The researcher met with the site council 23 times over a 19-month period. During these 2-hour sessions, he facilitated group meetings, introduced one or two communication or inquiry tools through interactive exercises, provided feedback to the site council about their application of the tools, and/or observed their use of the tools. After each tool was introduced, the participants chose an area of interest and practiced using that tool in their work or personal contexts. They also were asked to analyze the application of the tools and to articulate any insights gained about themselves and others by their use.

Data Collection

The collection of qualitative data for this study occurred in two phases. Phase one consisted of the introduction of the communication and inquiry tools to the site council. During this phase agendas, curriculum handouts, instruction notes made during and after training sessions, participant generated lists of insights about tools, participant learning journals completed after each session, composite learning journals, and participants= cumulative learning journals completed after 7 months were

collected. Phase two of the project consisted of the researcher observing the independent use of the tools by members at site council meetings. During this phase, the researcher completed field notes, and gathered site council agendas and members= cumulative learning journals completed after 19 months.

Data Analysis

The following questions guided the analysis of the data. Emphasizing discovery and interpretation, the questions posed were: (a) How are the communication and inquiry tools being used? (b) What result have the use of these tools produced? (c) What are the characteristics of these tools?

Findings: (a) How were the communication and inquiry tools were used?

An analysis of the data identified six categories of tool use by the members of the site council: (a) becoming aware of one=s own thinking; (b) making one=s thinking visible and transparent to others; (c) understanding the thinking of others; (d) seeing one=s interactions from a systems perspective; and (e) engaging in collaborative decision-making; and (f) capturing and documenting learning. Each of these categories of tool usage is discussed below.

Becoming Aware of One=s Own Thinking

Members of the council used the tools in an integrated manner to increase their awareness of their personal thinking process. This awareness of their own thinking crystallized in five areas: articulation, construction of meaning, self-examination, enunciation of discoveries, and consideration of new potentiality.

Articulation. The articulation of one=s thinking process was triggered through speaking and writing. The tools check-in, advocacy, group guidelines, illusion, left-hand column, and learning journals (Appendix A) invited participants to identify and share their ideas, feelings, assumptions, conclusions, and beliefs with each other orally or in writing. These acts of verbalization became windows through which members could hear and then see ideas, feeling, and thoughts held inside themselves. These acts of sharing and writing, triggered by the use of the tools, increased members= awareness of their own thinking processes. Members report becoming more aware of their own thought processes by using the tools, saying things such as, A[the] ladder of inference has helped me better see how I get myself into trouble by misunderstanding others,≅ AI have been able to express and explore my thinking more effectively,≅ and Asharing what I=m thinking can improve the quality of my assumptions.≅

Construction of meaning. Participants developed a deeper understanding of how they personally build meaning from the activities of the site council by using ladder of inference, advocacy, and left-hand column (Appendix A). These tools invited them to examine and observe their internal processes of drawing meaning from words and actions. Site council members used the tools differently. Members reported becoming more aware of how they construct meaning by using the tools, saying such things as:

- ∃I tend to jump up my ladder very quickly. Learning about the ladder of inference has helped me understand this tendency.
- ∃I have become more aware of my own thinking process by using the tools.
- ∃I can monitor the way in which I am coming to some of my conclusions in dealing with children, colleagues, and parents.
- ∃Having a greater understanding of my own thinking processes helps me to clear up the Aillusions≅ I have about myself.

Examining their own construction of meaning allowed them to understand how and when they tend to Ajump up the ladder of inference,≅ helping them to examine their own assumptions as well as their interaction with others.

Self-examination. New awareness of their thinking triggered site council members to reexamine and question their current beliefs and personal capacity. AIt=s difficult to listen and it takes practice. It=s an effort to listen. It=s difficult not to judge or rate,≅ is the insight one member drew from his self-examination. Another member=s self-reflection led him to question the certainty of his belief about how he communicates: AI thought I usually say what I am thinking, but now I know I don=t.≅ The journey of self-reflection led another member to experiment with new behaviors: AI tried to ask myself what is being communicated? What is the person saying? It is easy to react before getting the facts, also easy to lose interest. . . . I am going to be aware of listening.≅

Enunciation of discoveries. The fourth area that emerged under the category *awareness of one=s own thinking* is the articulation of new discoveries about the self. The tools encouraged site council members to examine the complexity of communication. Seeing the world with fresh eyes triggered new connection making B personal discoveries about learning and new understandings of others. The illusions tool invited site council members to re-envision their liabilities as assets. One member observed, AI=m kind of hard on myself. . . . I often get a sinking feeling about imperfections.≅ She turned this propensity to be critical into Aa positive: I am reflective and care about my quality as a teacher and a person.≅ Another member=s discovery focused on the difference between facts and assumptions. AI need facts to base my ideas and ways [sic] and not to make assumptions.≅ The capacity of a question to surface new ideas and change the dynamics of a discussion was another member=s discovery: AAsking the right question opens great ways of thinking.≅

Consideration of possibilities. The process of making new connections and coming to new clarity about their own thinking patterns triggered some site council members to entertain the possibility of personal changes. These new potentialities were noted in the learning journals and in the cumulative evaluations. The site council members had various insights leading to change. One said, AI often took mis-action. Maybe I need to work on slowing down my progress (and speed) up the ladder.≅ Another decided that Arecognizing and verbalizing my weakness made me think I can change [those weaknesses].≅ One member sums it up best by saying, Alearning about the ladder of inference has helped me to understand this tendency [jumping to conclusions without checking the data], and work on not doing it in other interactions.≅

Making One's Thinking Visible and Transparent to Others

The site council members brought their own personal histories to the site council meetings. These histories included personal experiences with schools, teachers, learning, and the system of education. The values, assumptions, and beliefs developed from such experiences remain hidden unless they are exposed through action or conversation. The use of check-in, polling, group guidelines, advocacy, and left-hand column (Appendix A) by site council members created the mixture of awareness, confidence, trust, and courage needed to articulate and share values, assumptions, and beliefs. The site council members felt that using the tools helped make their thinking more visible and transparent to others.

In discussing the critical learning gained from the tool check-in, council members said it helped them Abetter express [themselves],≅ Afeel more at ease with the group,≅ Aarticulate feelings,≅ and Aallow issues to surface.≅ They felt polling was, Aa vehicle for expression≅ that Abrings up viewpoints never considered before,≅ and Aleads to wanting more information,≅ in addition to Acreat[ing] a safe environment B no right or wrong answers.≅ With the tool group guidelines, site council members developed a list of community behaviors to maximize their effectiveness. This tool helped foster an environment of respect and participation where Acommon expectations can be identified and agreed upon,≅ and Apeople want to contribute their vision to the gathering.≅

Site council members observed that advocacy assisted them to Aexpress beliefs without feeling attacked,≅ Aclarif[y] wants and desires,≅ help Aall members to make their thoughts or ideas very clear to others,≅ Aintroduce an interactive process so more information is shared,≅ and Ahelp others understand your views.≅

In discussing the critical learning gained from the tool left-hand column (previously unspoken thoughts), council members cited its ability to clarify their ideas to others and increase the quality of communication. One member said it Agive[s] the other person a clear understanding of your actual position on the issue.≅ Another noted that by learning how to transfer his left-hand thinking, Apeople accept my faults and it increase[s] dialogue with others.≅ A member of the site council summed up the tool=s capacity to make his thinking visible and transparent to others by saying, it has Agiven me the knowledge to reach outside my comfort zone and share my beliefs and concerns.≅

Understanding the Thinking of Others

All members of the site council came to meetings holding assumptions and beliefs about issues connected to education B learning, discipline, curriculum, school mission, etc. The tools inquiry, advocacy, and left-hand column (Appendix A) invited members to explore their own and each other=s beliefs. The tools were used by members to demystify the thinking process of others so they could understand their assumptions, conclusions, beliefs, and actions.

In discussing the learning gained from the tool inquiry, members noted it helped them, Asee other viewpoints and the reason for them,≅ Alisten and conscientiously try to understand the beliefs of others,≅ Auncover values or underlying opinions,≅ and Abuild understanding and trust.≅ The tool advocacy was cited as Aintroduc[ing] an interactive process so more information was shared,≅ and Ahelp[ing] others understand your views.≅ Using left-hand column, another member noted it, Aincrease[s] dialogue with others and [facilitates] coming to greater understanding of their viewpoint,≅ rather than ending up in Aa situation where you might have a stalemate.≅

In discussing how the tools collectively influenced them, one member stated, AI have learned more about our faculty . . . [by] observing, listening for assumptions, inquiring, [and] asking for data.≅ Another member echoed this by observing. AI=ve really gotten to know the site council members better . . . sharing learning tools for in-depth, honest interactions.≅ A third member noted, Awhen I disagree with someone, having the tools helps me to see their point of view. I find myself saying, >help me to understand why you have this opinion, etc.= It is non-threatening and builds better dialogue.≅ Another member observed that the tools helped her appreciate the linkage between questions and the intentions behind the inquiries. She observed it was critical to have a Awanting to know point of view≅ which expressed Aconcern and honesty.≅

Seeing One=s Interactions from a Systems Perspective

The site council is a system composed of individuals working to provide leadership for school improvement activities. Through the utilization of the tools, members began to view themselves as a system, Aan integrated whole whose essential properties arise from the relationships between parts [members]≅ (Capra, 1996, p. 27). The tools triggered development of three skills associated with systems thinking: (a) wide angle vision; (b) recognition and articulation of patterns of operation; and (c) identification of participants with each other.

Wide angle vision. The first skill developed was the ability to view the working of the council from a wide-angle vantage point. Rather than viewing the activities of the council from a narrow egocentric perspective characterized by thoughts that they are being ignored, the perspective shifts to the expansive whole characterized by attempts to understand what about group interactions keeps members from hearing each other. Members demonstrated the skill of wide-angle vision with the following expressions:

- ∃Today=s meeting had a very different feel from the last meeting B yet both were very productive.
- ∃It was interesting to see how quickly we make assumptions.
- ∃Seeing the previous learning journal responses made it clear to me that we are operating from different perspectives.

Recognition and articulation of the patterns of operation. Members began to articulate their understanding of the current reality of site council operations without defensiveness or blame. The site council comments that follow illustrate the recognition of patterns of operation:

- ∃The technique of providing closure by asking Ais that a proposal?≅ really helped me see that we don=t get closure always, and need to.

∃I am becoming aware of how much we need to make assumptions.

∃The closing discussion helped me see that we did accomplish something.

Identification of individuals with each other. Characterized by thoughts recognizing that they are not alone, but in relation with others in a system, site members illustrated this skill when they said things such as, Arecognizing my own weaknesses and strengths [and] also recognizing strengths and weaknesses in others helps me to learn or see how to interact and react to them to get the best possible dynamics,≅ and AI am aware that my input is useful. Everyone can learn from each other.≅

Engaging in Collaborative Decision-Making

Site council members used the tools to engage in dialogues that resulted in the formation of shared decisions. Various tools, together with dialogue-triggered behaviors and thinking, supported members= engagement in this process. The use of these tools facilitated trust, deep listening, understanding, sharing of ideas, commitment to outcomes, and ownership for decisions, as evidenced by their comments about the tools:

∃*Check-in* Abuilds trust,≅ Aincreases understanding,≅ Abuilds community and compassion,≅ and Aallows issues to surface and be addressed.≅

∃*Establishing group guidelines* Acreates commitment≅ and Abuilds community by creating common expectations.≅

∃*Ladder of inference* helps to Akeep people from jumping to conclusions,≅ creates awareness that Aassumptions are common and can block communication so they need to be surfaced and explored,≅ and encourages members to Acome in with an open mind willing to listen, learn, and share.≅

∃*Balancing inquiry and advocacy* Agets ideas and feeling out so they can be examined,≅ Aallows you to learn what others feel [and] think,≅ Ahelp[s] others understand your views,≅ Aincrease[s] the meaningfulness and the effectiveness of conversations/communications,≅ Aincrease[s] active participation which increases learning and buy-in,≅ and Ahelps bring the group into agreement.≅

∃*Dialogue* aiding them to Abecome a better listener,≅ Ahear and learn more,≅ and to suspend Ajudgments,≅ Apreconceptions,≅ and Aassumptions≅ as they enter into conversations.

Capturing and Documenting Learning

The learning journal and the composite learning journal were the tools members used to capture and document individual and collective learning. Three levels of learning were captured by the these tools: (a) learning about the tools= capabilities, (b) exploring possible applications for tools, and (c) learning to increase learning in the sessions.

Learning the tools= capabilities. The first level of learning captured by the learning journals focused on questions about the tools, insights (ah-hahs), and puzzlements resulting from personal

practice, collective conversations, and action exercises. The following excerpts from personal learning journals illustrate site council member striving to understand the tools= capacities:

∃I have a clearer understanding of how recognizing advocacy/inquiry positions can re-direct a meeting or conversation and get things moving to closure [ah-hah].

∃Inquiry helps see where the other person is coming from!! [ah-hah].

∃Some steps of the ladder seem unclear [puzzlement].

∃Not always clear how I can use [the tools] in daily life [puzzlement].

∃Are there instances when traveling up the ladder [of inference] that we skip a step or blend two steps into one? [question].

∃Is the pathway to action tool mostly used for complex problems? Seems like a complicated process if it isn=t [question].

Exploring possible applications for tools. The second level of learning captured by the learning journal focused on members exploring points of application for the tools. The learning journal excerpts that follow illustrate how the members began to seek applicability of the tools:

∃Will definitely use left-hand column in discussions with staff to uncover need for more information or action.

∃Will use [left-hand column] in student teacher/supervisor meeting.

∃I especially think inquiry would be effective for discipline problems B or problems children have getting along with each other.

∃[Check-In] should help me be more in tune with others= feelings.

∃I think pathways [to action] will help us to arrive at a better solution by understanding the process.

Learning to increase learning in the sessions. The third level of learning captured by the learning journals focused on members becoming co-designers of the learning process. After each session participants responded to the question, AHow can we increase learning in future sessions?≅ The responses generated from this question were used to design the next session. Feedback from the members fell into three categories: instruction, procedures, and personal learning strategies. In the category of instruction, members suggested that I Acontinue to be responsive to [their] rate of learning,≅ Acontinue the small group sessions with time to share [and] debrief afterward,≅ and Agive enough time for understanding the tool before≅ giving homework. In relation to procedures, requests were received that I: Areceive learning journals [back] more promptly so we may have more time to read and think of responses,≅ and Amake sure to go over the different tools briefly [at the beginning of class].≅ Comments from participants on personal learning focused on members assuming responsibility for their own learning by identifying behavior changes that would increase their learning. The site council members felt that the following attitude/behavior changes would best facilitate more learning:

∃Being as involved as I can and practicing what I learn.

∃Becoming a better listener.

∃Being honest, asking questions, having a learning attitude.

Findings: (b) Results Produced from Site Council Use of the Tools

The introduction of the tools to the site council resulted in council members increased capacity Ato think differently and choose new behaviors for working together more effectively.≅ An analysis of the data has identified four process areas of growth: listening, engagement, trust, and efficacy.

Listening

Participants said the communication and inquiry tools assisted them in building their capacity to become better listeners. The analysis of the data found three types of skill development in relationship to listening: focus, openness, curiosity.

Focus. Site council members reported that they entered into conversation with more attentiveness to the words spoken by fellow site council members, colleagues, and friends. Members reported that they began Ato *really* listen≅; Atrying to hear/get all the facts before taking actions.≅ They saw the other members of the site council as making an Aeffort to hear each member=s opinion on an issue,≅ and Aactually listen to what the other person was saying.≅

Openness Site council members reported that they entered into conversation with less judgment, less jumping to conclusions, more candor, and fewer assumptions. Members saw the site council make shifts as a result of being more open. These included Abeing more open and encouraging to others,≅ Amore willingness to hear other viewpoints,≅ Abeing more tolerant,≅ Anot jumping to conclusions right away,≅ and Abeing more honest with each other.≅ Members saw themselves as making individual shifts, including Alistening in silence before asking or interjecting for information/opinions,≅ Areally listen and recognizing that there are other ways than my own,≅ Asuspending assumptions,≅ and Anot jumping to conclusions.≅

Curiosity. Through the use of the tools, site council members entered into conversations with a deepening interest in understanding the content of what was being said and the processes people were using to construct their conclusions and beliefs. When members heard something that was confusing or troubling they would ask questions. If members sensed they were jumping to conclusions with limited data, they would seek more information. This deepening curiosity manifested itself through inquiry. They reported seeing themselves as a council Aasking members to clarify statements,≅ being Amore inquiring during discussions,≅ seeking Ainformation without judgment,≅ and having a greater Awillingness to say what=s on their mind.≅

Engagement

The second area of growth stemming from the site council members= use of the tools was engagement. As discussed in section 1 of this chapter, members used the tools to become aware of their thinking, make their thinking visible and transparent to others, understand the thinking of

others, capture and document learning, see their interactions from a systems perspective, and engage in collaborative decision-making. These tools each fostered deeper engagement in specific ways.

Becoming aware of their thinking connected members to their own interests, beliefs, and purposes, which became touchstones for conversations. These conversations fostered Aclearer understanding, more compassion, and better rapport with others.≅

Making their thinking visible and transparent to others, and trying to understand how others think cultivated an exchange enabling council members to be more comfortable expressing their opinions and ideas. AWe are learning from each other [and] respecting each other=s opinion,≅ said one member.

Capturing and documenting learning nurtured community building. AI ask the group for guidance more. I look for collective intelligence and attempt to capture our learning.≅

Making collaborative decisions encouraged alignment of purpose, helping Aeveryone on the site council develop respect for each other and established better listening and involvement. A[It] helped us become more team members B not Lone Rangers.≅

The tools and processes described here fostered engagement by creating Aa focus for the site council and a direction for growth and priority setting.≅

Trust

The third area of growth resulting from the site council=s use of the tools was a deepening mutual trust. The increase in trust was closely linked to the increased capacity for listening and the deeper engagement and sharing of ideas.

Increased capacity for listening created the opportunity for site council members to observe the processes other members used to make meaning from the selection of data. This resulted in members experiencing the complexity of diversity. Through the use of inquiry, members encouraged others to share their thinking and make it more understandable. AI ask questions when I don=t quite understand,≅ said one member. This more fully engaged listening encouraged more sharing, and from this process grew an environment that encouraged relationship building. A member reported feeling that she had Areally gotten to know the site council members well,≅ and another observed he had a Abetter understanding of everyone.≅

The site council became a safe place to risk sharing their thinking. Council members expressed this in many ways: AI have gained more confidence by being comfortable in the group. I know my ideas and opinions are appreciated≅; Amutual respect, patience, and listening [create] openness to other points of view≅; AI think colleagues have increased communication, been able to take on some serious differences, and been able to trust each other at a higher level≅; Aas we used the tools we had a better idea of why we each felt the way we did. When the understanding and communication grew, so did the trust.≅ One member observed a causal relationship between the tools fostering trust

and the site council commitment to devote time for their work: ATools helped build trust faster but time was essential.≅

Efficacy

The fourth area of growth resulting from the site council=s use of the tools was an increase in efficacy, especially an increase in the quality of communication. Efficacy is defined in this study as increase in the site council=s ability to stay on task, work through difficult issues, communicate more directly with each other, and respect differences of opinions. The site council members became more comfortable and confident in their ability to use their time together wisely and accomplish their responsibilities. AWow! Our use of the tools, group empathy, and quality of communication has improved 200%. It=s amazing,≅ was one enthusiastic response. Participants reported an increase in their capacity to be focused as an increase in efficacy with statements like, Aby using the tools we are able to stay on task and complete goals that we have set for ourselves,≅ and Arunning meetings with the tools . . . keeps us focused on goals and objectives.≅ Members also saw site council meetings as Amore efficient and effective≅ after they began using the tools.

This sense of efficacy did not come at the expense of limiting input from members. One participant reported the value of hearing Ainput from all members to get [the] best possible solutions.≅ Another member noted the council=s Abetter use of time because we check-in to see where people are.≅ The perceived capacity of the site council to be deliberative was captured by a member observing that the Ameetings are more thoughtful.≅ The site council did not avoid difficult issues as a means of improving efficacy. One member cited the ability of the site council to get Athrough difficult issues and still be able to respect points of view.≅ The site council as a committee reacted to problems with the mindset that they were part of the landscape and not to be feared or avoided. AI feel proud of our site council to be able to discuss openly when we have problems arise. We try to reach an understanding of the minds.≅ A member gave an example of this capacity by describing the council=s ability to cooperatively Acapture learning.≅

The use of communication and inquiry tools helped the council to embrace the diversity of its members: administrators, teachers, parents, community members, and support personnel. This capacity was articulated by a member when he observed: the tools Ahave made me think about the ways we communicate our ideas, and made me more aware of how the differences of opinion can be overcome.≅ Another member saw the tools as Agiv[ing] me the feeling that I can work with anyone on issues.≅

Findings: (C) Characteristics of Communication and Inquiry Tools

The tools exhibited both capacity building dimensions and operational characteristics.

Capacity Building Dimensions

The communication and inquiry tools increase the awareness of site council members in three capacity-building dimensions: (a) awareness of self, (b) awareness of others, and (c) awareness of the system.

Awareness of self. An increase in the capacity to be self-aware centered around members becoming more aware of their own thinking, mindful of their assumptions, attentive to how they constructed meaning, reflective about personal beliefs, observant of new discoveries, and exhibiting a willingness to step outside their comfort zone.

Awareness of others. An increase in the capacity to be aware of others was centered around members becoming more conscious of their tendency to jump to conclusions, and developing the ability to suspend assumptions and listen with a beginner=s mind. Deeper listening stimulated inquiry into statements that were confusing or unclear.

Awareness of the system An increase in the capacity to see themselves as part of a system centered around members= ability to build deeper relationships with each other. Deeper relationships cultivated safety, enabling members to make statements or ask questions that in the past would have gone unspoken because they would have been deemed too threatening. These honest interactions nurtured the testing of ideas, leading participants to better understand the consequences of actions and the interdependence of members. Ultimately, they began to see that the potential of the council was embedded in members= relationships with each other.

There was a synergistic relationship between capacity building in each of the dimensions. Awareness in one dimension deeply influenced the capacity for awareness in the other dimensions. Awareness of self was often triggered by questions posed by others; the desire to ask a question was frequently motivated by new connections seen from increased personal awareness; awareness of others was often triggered by members reaching beyond their comfort zones and sharing thoughts that in the past would have remained unsaid; awareness of the system was frequently triggered by deep listening which is centered in personal awareness.

Operational Characteristics of the Tools

The tools exhibited an identifiable set of operational characteristics.

- ∃The tools invite mindfulness and focus.
- ∃The tools are inherently passive, their potentiality come from their application through the emerging skills of the user.
- ∃Initial competence with the tools can be gained from instruction, experimentation, ongoing practice, and reflection.
- ∃The tools can be used with other team members to make decisions and build solutions which no single council member could come to alone.

The communication and inquiry tools introduced to the site council share many of the operational characteristics of musical instruments. The tools as stand-alone concepts do not result in the growth of individual capacity. Unused, they engender no awareness of one=s thinking, no ability to make

one=s thinking visible to others, no understanding of the thinking of others, no ability to see one=s interactions from a system perspective, no ability to document learning, and no ability to engage in collaborative decision-making. The awareness and understanding the tools engendered comes from their use.

Each tool has a particular focus inviting attention to a particular purpose. The awareness, insights, and learning fostered by each tool reflect the emerging skills of the user. Developing initial competency with the tools takes instruction, experimentation, ongoing practice, and reflection. Like musical instruments, the communication and inquiry tools have the capacity to be used in conjunction with each other to create complex compositions B cognitive symphonies which result in collaborative and shared decision-making.

Discussion

The demands on schools to increase student performance are being driven by systemic forces that will not dissipate (Albers-Mohrman & Wohlstetter, 1994). Tyack and Cuban (1995) observe that education is always at the vortex of debate because education embodies the uncertainty of Adefining the present and shaping the future≅ (p. 42). The learning organization is a conceptual construct seeking to respond to uncertainty and change that surrounds organizations today. The leaning organization is in the inventive stage and so are the tools associated with it. Thus, the connection between the tools and the organizational learning theory is not yet clearly defined. My work with the site council incorporated early drafts of cognitive tools which, over time, will become better understood and more effective in building educators= capacity to participate in new organization structures that align with the learning needs of the quantum paradigm. The concept of the learning organization is being continuously refined and will eventually be replaced.

The positive response of the site council members to the communication and inquiry tools is centered around the hopefulness they provide. The frustration, powerlessness, despair, and depression I often see expressed by educators comes from the gap between their school=s current reality and the vision multiple stakeholders hold of the school=s potential. The tools engender hope by developing cognitive and processing skills which help people deal with uncertainties that surround schools today.

Educators, like many individuals, find themselves in organizations today struggling to maintain competence and economic viability in the rapidly changing landscape of the knowledge era. Unfortunately, the tools and strategies educators often use to identify, discuss, and address issues come from the Newtonian paradigm which stresses certainty, predictability, and control. These tools do not match well with the complex, chaotic, and uncertain problems characteristic of the quantum paradigm framing the knowledge era.

Much of the feeling of frustration that educators feel comes from trying to use thinking communication, inquiry and solution building frameworks which no longer fit the needs and problems they seek to address. The communication and inquiry tools used in this study represent an emerging set of cognitive tools focused on developing skills to build solutions to problems typical of the knowledge era B complex problems in environments of uncertainty. These emerging cognitive

tools have potential to shift the dialogue surrounding education reform away from frustration and blame and toward capacity building and hopefulness.

Appendix A

COMMUNICATION AND INQUIRY TOOLS

Tool	Associated Behaviors
Advocacy	To create an auditory map for others so they can understand how you have come to your conclusions, beliefs, or actions.
Balancing Inquiry and Advocacy	To be conscience of the balance between making one=s reasoning explicit and asking others to make their thinking explicit.
Check-in	To share with others where you are at the moment so you can be mindful, engaged, and present at meetings.
Composite Learning Journal	A verbatim transcript of a set of learning journals from a session. It invites members to see and explore the collective learnings of a team, looking for trends and patterns.
Cumulative Learning Journal	To invite individual members of a team to reflect on their personal learning, and the shifts that they are observing in their team members over time.
Dialogue	To engage in conversations with a beginner=s mind searching for the flow of meaning.
Group Guidelines	To collectively create and commit to a set of behavioral expectations for the purpose of maximizing the team=s effectiveness.
Illusions	To be conscious of what you are trying to keep others from knowing about you (which is already apparent to them) and then acting on this awareness.
Inquiry	To ask questions when other individual=s verbal statements or actions are confusing or vague.
Ladder of Inference	To trace one=s thinking process through six questions: What data did I select? What meaning did I ascribe to the data? What assumptions did I make based on the meaning I added? What conclusions did I draw? What beliefs did I adopt from my

	conclusions? What action did I take based on my beliefs? This tool creates a window for one to understand the processes one uses to build beliefs and take actions.
Learning Journal	To invite individual members of a team to reflect on their learning and to inquire into how they can increase their learning in future meetings.
Left-Hand Column	To be conscious of how one=s unsaid thoughts can influence the outcome of conversations, and to act on this awareness either by verbalizing these thoughts or reflecting on them internally.
Pathways to Action	To gain clarity and agreement on the problem-solving pathway the team will use prior to its implementing a solution.
Polling	To be curious about what others are thinking.

REFERENCES

Capra. F. (1996). *The web of life*. New York: Anchor Books/Doubleday.

Corbett, H. D., & Wilson, B. (1991). *Testing, reform and rebellion*. Norwood, NY: Ablex.

Fullan, M. (1993). Innovation, reform, and restructuring strategies. In R. S. Brandt (Ed.), *Challenges and achievements of American education: ASCD 1993 yearbook.* (pp. 116-133). Alexandria, VA: Association for Supervision and Curriculum Development.

Fullan, M. (1998). Leadership for the 21st century: Breaking the bonds of dependency. *Educational Leadership, 55*(7), 6-10.

Fullan, M., with Stiegelbauer. S. (1991). *The new meaning of educational change*. New York: Teachers College Press..

Hargreaves, A. (1997). Introduction. In A. Hargreaves (Ed.), *Rethinking educational change with heart and mind: 1997 ASCD yearbook* (pp. Vii-xv). Alexandria, VA: Association for Supervision and Curriculum Development.

Mohrman, S. A., & Wohlstetter, P. (1994). *School-based management: Organizing for high performance*. San Francisco: Jossey-Bass.

Newmann, F. M., King, B. M., & Redgon, M. (1997). Accountability and school performance: Implications from restructuring schools. *Harvard Educational Review, 67*(1), 41-69.

Senge, P. M. (1990a). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.

Senge, P. M. (1990b). The leader=s new work: Building learning organizations. *Sloan Management Review, 32*(1), 7-23.

Senge, P. M., Kleiner, A., Roberts, C., Ross, R. B., & Smith, B. J. (1994). *The fifth discipline workbook.* New York: Doubleday Currency.

Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform*. Cambridge: Harvard University Press.

U.S. National Commission of Excellence in Education. (1983). *A nation at risk*. Washington, DC: U.S. Department of Education.