

A Leadership Approach to Using Technology to Enhance Organizational Learning and the
Creation of a Knowledge-Centered Culture in this School District

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Introduction

Background

School improvement and school reform resulting in increased student achievement is of primary concern in public schools today (Mai, 2004). Organizational learning and renewal are major factors in school improvement efforts (Mai, 2004). An adaptive, evolving learning environment may be identified as one of the most critical components contributing to student achievement. The school organization must have the ability to learn, develop, and change in order to encourage and nurture student achievement and learning (Mai, 2004).

With increased requirements for accountability of administration, staff, and students, organizations (both academic and corporate) are pursuing the notion of making more effective use of the knowledge and expertise within their organization (Janz & Prasarnphanich, 2003). Organizational learning has become a primary focus for superintendents and leaders in education, as new mandates such as the No Child Left Behind (NCLB) legislation and other directives on the federal, state, and local level stiffen requirements for accountability. Leaders in the practice of organizational learning (knowledge management) struggle with developing a culture that “embraces and rewards knowledge-sharing in all its manifestations such as learning, mentoring, collaboration, etc.” (Janz & Prasarnphanich, 2003, p. 352). Leaders are searching for new approaches that will impact the knowledge and practice level in their organizations, leading to organizational change and organizational learning (Superintendent, personal communication, December 28, 2005). Change is an intricate process involving developing new methods of approaching issues, renewing and adapting methods that work for the organization, and delicately intertwining the new with people, values, cultural beliefs and other elements

comprising the organization as a whole. During the change process leaders have opportunities to build community and support amongst stakeholders and those who comprise the organization.

Studies show that effective communication is key to organizational learning. A leading superintendent's communications newsletter reports that companies that communicate effectively are 4.5 times more likely to report high levels of employee engagement (National School Public Relations Association, *Communication Matters for Leading Superintendents*, 2006). These same companies are 20 percent more likely to report lower turnover rates than their peers. The author states, "One way of keeping good teachers and other staff members is to develop a sense of ownership of their work for your school district. Respecting their skills and opinions, and involving them in decisions about curriculum, materials, and policies, add up to a climate of commitment and loyalty by your staff" (National School Public Relations Association, *Communication Matters for Leading Superintendents*, 2006, p. 1). Rusch (2005) contends that the most common feature identified by authors who write about organizational learning is "organized talk"—talk that involves collective interaction, intense communication, reflective dialogue, persistent inquiry, and reflective thinking (p. 85). Leithwood (1998) and his colleagues point out that organizational learning cannot occur without professional talk and focused communication related to "shared norms, values, and beliefs about, for example, professional responsibilities, the nature of teaching, and the value of colleagues' expertise, that influences the level of individual and collective motivation to learn" (p. 270). Open and constant communications between leaders and all stakeholders, including district personnel, teachers, parents and the surrounding community, are vital. Bolman and Deal (1997) suggest that the characteristics of an atmosphere of trust, interdependence, mutual accountability, common purpose, and open communications are key components for building positive relationships within

an organization. Supportive leadership and open communications are factors supporting cultural and capacity building within an organization to positively affect organizational culture and facilitate organizational learning and change (Datnow, 2005). The heart of this study is to investigate if technology, when used purposefully, can be used to increase and support communications to build capacity and collaboration throughout a school organization.

Setting

Pleasant Valley Schools is a suburban school district, drawing students from inside Pleasant Valley city limits as well as from the surrounding county area. The Pleasant Valley School District has a student population of approximately 17,000 students housed in 19 elementary buildings, three junior highs, two senior highs, one alternative high school, one career center, and several alternative programs (Boys and Girls Town of Missouri, Drumfield, hospital school, satellite programs, autism center, etc.) throughout the community. Currently, average growth in the district per year is approximately 200 students. Free and reduced lunch percentage has increased from 26% in 2001 to 31% in 2005. The district employs approximately 1200 certificated staff and approximately 800 support staff and administrators. The community values education and expects high-quality educational experiences for all students. The District develops and maintains a comprehensive school improvement plan (CSIP) through input from staff, parents, students, the Board of Education, and key stakeholders in the community. District curriculum, systems, technology, and assessments are constantly evaluated and adapted to meet changing needs of students, faculty and staff, and the community as well as federal and state requirements (<http://www.pleasantvalley.k12.mo.us/reports/csip0409.pdf>).

Problem Statement

Historically, Pleasant Valley Schools is a school system responsive not only to student and community needs but also to the staff and faculty needs. However, within the past school year, communication frustrations between faculty and central office staff have developed. For example, one communication issue appeared when the district designed and prepared to launch a new professional development program without what teachers perceived to be adequate input. Ten teachers were selected and paid a stipend to serve as “model” classroom teachers in model professional development classrooms. Teachers were upset with the methods used to select the model professionals and with the “secretive” approach with which the program was announced (Nelson, 2006, January 6). Assistance to communicate growing frustrations was elicited from the Pleasant Valley Community Teachers’ Association, a local branch of the Missouri State Teachers’ Association composed of voluntary membership of school personnel. In an email to all Pleasant Valley Community Teachers’ Association (PVCTA) members, the president described his meeting with the district superintendent and assistant superintendent, “To briefly summarize, I believe that both of them realize that the ball was dropped in regards to communicating effectively with the teaching staff on exactly what the new program was... I made my point to both superintendents that communication within the district, and particularly communication between administration and teachers, is lacking” (E. Billings, personal communication, October 11, 2005).

Recently, the local newspaper reported continued frustrations with intra-district communications, particularly between administration and the teaching staff. According to the article, the district climate is such that faculty feels their opinions and suggestions are not welcomed or invited by the administration into the decision making process (Nelson, 2006,

January 6). A general consensus exists that either miscommunication or lack of adequate communication occurs from administration to faculty and staff (E. Hanson, Personal communication, October 11, 2005). One administrator expressed that his staff feels like the district administration doesn't have a sense of what is going on in the buildings (Principal, Personal communication, January 12, 2006). For example, some of the communication frustrations stem from a recent event where a high school task force was established to address new Missouri state graduation requirements. High school faculty feel that the task force members' chosen are not representative of their school and are from core academic areas (math, science, language arts) and therefore, will not represent faculty concerned with declining enrollments in other areas, such as the fine arts, foreign languages, and vocational classes (Nelson, 2006, January 6). One teacher coalition member states, "Where is our opportunity to communicate?" (Nelson, 2006, January 6). According to the local newspaper, the teacher coalition has proposed that a communications liaison position be created for every school to help with communication to administrators. Dr. Ethington, superintendent of schools, said that the board will find a way to communicate better stating, "...they [teachers] have a board and administration that wants to be supportive and wants to provide the support they need to do their jobs well." (Nelson, 2006, January 6).

As a result of recent events, the superintendent, along with the coordinator of school relations and district communications, asked technical support services to assist in increasing intra-district communications. In response to this request, a new web-based technology has been released to a pilot group of administrators and faculty. PVSIntranet, an intranet portal, was launched in February, 2006. The portal contains constant, up-to-date information from administration on issues such as personnel matters, staff salary and benefits, a "grapevine"

column where staff can ask questions anonymously and receive feedback from a central office administrator, and a staff recognition section. The portal is a way to handle masses of information and in the process can be used to create knowledge.

Research Questions

1. To what extent, if at all, does the drive toward improving professional dialogue contribute to organizational learning and a knowledge-centered culture?
2. To what extent, if at all, is the current leadership approach toward the use of technology effective in improving communication and professional dialogue?

Purpose of Study

Within the context of organizational learning and knowledge management, little research has been conducted to identify components of technology integration that appear to contribute to organizational learning and a knowledge-centered culture (Janz & Prasarnphanich, 2003). The purpose of this study is to use action research methods to examine how the integration of technology may contribute to organizational learning and a knowledge-centered culture in school organizations.

Theoretical Frame

Throughout this study I will be using a lens grounded in single-loop and double-loop learning theories (Morgan, 1997). Morgan (1997) provides clear guidance on the principles of double-loop learning in an organization when he states, “To learn and change, organizational members must be skilled in understanding the assumptions, frameworks, and norms guiding current activity and be able to challenge and change them when necessary” (p. 92). The author emphasizes that the purpose of double-loop learning is to use a self-reflective practice that questions the status quo and considers alternative modes of operation. Nonaka and Takeuchi

(1995) also recognize that a process of constant reflection and renewal must take place in order for organizational learning to occur. The authors describe the process as “an expanding community of interaction which crosses intra- and inter-organizational levels and boundaries” (p. 59). In double-loop learning the organization (individuals and groups) questions the values, assumptions and policies that led to the action in the first place (Argyris and Schon, 1996). Double-loop learning emphasizes a deeper investigation of the issues, with the organization questioning whether the goals, approaches and strategies being used are the right ones to produce desired results, and encourages the organization to rethink the whole approach (Argyris and Schon, 1996; Bolman and Deal, 1997).

Outline of Methods

I began this study as a researcher from inside this school district. I was employed in a key position to guide the technology team toward using technology to meet organizational needs and goals. I am now the Executive Director of Technology for another school district. As a result, this study is enhanced by views and dialogue from both an insider and outsider perspective. What began as an insider research study is now influenced by an outside perspective in educational administration and technology.

Herr and Anderson (2005) imply that insider action research has no clear beginning or ending to the inquiry. The authors state, “Research questions are often formalized versions of puzzles that practitioners have been struggling with for some time and perhaps even acting on in terms of problem solving” (p. 72). Herr and Anderson (2005) further clarify that many times a practice has been put into place before the action research has been formally initiated. They state, “...sometimes an intervention has already been put into place, based on workers’ professional opinions and problem solving or via an assessing outside entity, and the agency is now

wondering whether the intervention is working or how it might be refined...these are examples in which more than one person “owns” the question” (p. 89). The inquiry may be instigated by a doctoral student or by a team of interested people or stakeholders (Herr & Anderson, 2005).

As in the case Herr and Anderson (2005) described, one of the action research cycles in my proposed study is complete. This study began in the middle of Cycle I and proceeded through its completion and through another complete cycle. In terms of action research, Cycle I was composed of initial implementation of the first phase of the portal (intervention/action). Data have been gathered (review/evaluation) and planning has taken place to increase communication in the District by adding dialogue/discussion and book study sections to the portal (titled PVSIntranet); action/intervention for Cycle II took place during the 2006-07 academic year.

Data such as meeting minutes, memos, and newspaper articles, as well as journaling were methods used to document the process in order to understand the intervention as well as to develop baseline data for the future cycles (another intervention). In addition, all certificated staff were surveyed on their use of technology for internal communications, including specific questions on their use of the portal for communications and professional dialogue.

Using double-loop learning principles as a guide, my role as a researcher was to gather data to find out if communication in the form of professional dialogue is increasing as a result of usage of the PVSIntranet portal or other forms of technology, and to provide this information to the technology team, the district communications coordinator, and District administration. Further, is the professional dialogue, through increased communications, contributing to organizational learning? The technology team is primarily composed of people who, while being well versed in technical support, are not well versed in education issues. As an educational leader, I encouraged the team to focus on using the portal as a tool for educational and

communication purposes, rather than focusing on the technology itself. I used a four prong, two cycle action research design (Coghlan & Brannick, 2005) to examine the effects of using pieces of technology, specifically an Intranet portal, as a tool to increase communications among and between administration, teachers, and staff throughout this school organization. The four prongs in each cycle include diagnosing, planning action, taking action, and reviewing/evaluating/reflecting upon the results of the action taken.

Ideally, organizational learning will occur if the school district can take a critical look and question current operating norms, especially in the area of communications (professional dialogue), and initiate appropriate interventions from feedback. As Morgan (1997) states, “It is this kind of self-questioning ability that underpins the activities of systems that are able to learn to learn and self-organize” (p. 86).

Significance of the Study

With increased accountability measures and heightened standards for staff and students, organizational learning, development, and change will be a major focus for school districts over the next few years (Mai, 2004). This study should provide information on whether (and if so, to what extent) incorporating technology can increase communication (professional dialogue), thereby facilitating development of organizational learning and a knowledge-centered culture in school organizations. This study should also provide information that will allow current or aspiring leaders to be better prepared to contribute to and improve organizational learning through enhanced collaboration and communications from the use and integration of technology into their daily environment. In addition, Herr and Anderson (2005) indicate that data analysis [as part of the action research process] is pushed by relevant literature and also contend that, in return, literature is extended through the contribution of quality action research. This distinction

is especially relevant, as action research is often seen as contributing solely to local knowledge and practices rather than to the general knowledge base.

According to Janz and Prasarnphanich (2003), organizational culture is one of the most significant inputs to effective knowledge management and organizational learning. The authors emphasize that corporate/school culture determines beliefs, values, and systems that could encourage or impede learning (knowledge creation), knowledge sharing, and decision-making. Furthermore, the most effective organizational learning strategies should center on strengthening and developing organizational cultures (knowledge-centered cultures) or learning cultures (DeTienne & Jackson, 2001). Schein (1996) proposes that leaders evaluate the preexisting culture and utilize elements in that culture that can be positively used to create new ways of working that are more effective. The author emphasizes building on what is working is more effective than criticizing what is not working and prompting the evolution of the culture is much easier and more palatable than trying to change it. Leithwood, Jantzi, and Steinbach (1998) argue that the two primary factors in stimulating organizational learning are collaborative and collegial school cultures (elements of a professional community) and strong leadership.

Relevant Definitions

Organizational culture: Culture is a phenomenon that surrounds us; it includes norms, espoused values, beliefs, behavior patterns, customs, rituals, and traditions of an organization.

Organizational culture is symbolic in nature and is accumulated learning from shared history (Schein, 1992).

Learning organization: Although there are many definitions of a learning organization, for purposes in this study, I will use the definition from Senge (1990) as a base from this

perspective. “A learning organization is a place where people are continually discovering how they create their reality. And how they can change it”. (Nonaka and Takeuchi, p. 45)

Capacity building: An organization’s ability to identify and address issues and gain the insights, knowledge, and expertise needed to institutionalize reform, solve problems and implement change. (Datnow, A., 2005)

Portal: An internal or external site offering a host of commonly used resources and services. Greatly increases communications by serving as a gateway to one-stop information on topics such as news, forums, personal information, company/school information, software applications and files, email, etc. (<http://www.marketingterms.com/dictionary/portal/>)

Intranet: The primary purpose of an Intranet is to share school district information and computing resources among employees and can be used to allow access to specific information to external constituents as well (such as parents or community members). The intranet can also be used to facilitate working in groups and for collaboration purposes. (<http://www.marioalexandrou.com/glossary/intranet.asp>)

Literature Review

Introduction

With current emphasis on accountability from students through administration, organizations are focusing on more effective use of the knowledge and expertise within their organization (Janz & Prasarnphanich, 2003). Organizational learning and a knowledge-centered culture have become a primary focus for superintendents and leaders in education in order to provide their staff with the professional tools needed to meet new directives on the federal, state and local levels. This review demonstrates that a knowledge-centered organizational culture supported by open and nurturing communications and professional dialogue better enables school districts to cope with the challenges they face. Organizational learning and its connection with a knowledge-centered culture is supported in the section below titled *Connections Between Organizational Learning and Culture* utilizing the following subheadings: *A Knowledge-Centered Organizational Culture, Building Staff Capacity Through Effective Teams, Organizational Learning—Adapting to Change, and Organizational Learning and the Knowledge-Creation Process.*

Connections Between Organizational Learning and Culture

A Knowledge-Centered Organizational Culture

Janz and Prasarnphanich (2003) state, “Organizational culture is believed to be the most significant input to effective knowledge management and organizational learning in that corporate culture determines values, beliefs, and work systems that could encourage or impede learning (knowledge creation) as well as knowledge sharing” (p. 353). Morgan (1998) emphasizes social and organizational implications of culture when he states, “Organizations are mini-societies that have their own distinctive patterns of culture and subculture...such patterns of

belief or shared meaning, fragmented or integrated, and supported by various operating norms and rituals can exert a decisive influence on the overall ability of the organization to deal with the challenges it faces” (p. 129). Bruffee (1999) emphasizes the need for schools to reacculturate the school environment when he states, [professors/teachers should] “...reacculturate students into membership in the knowledge community they aspire to join” (p. 144).

Leithwood, Jantzi, and Steinbach (1998), identify five groups of characteristics found in schools as learning organizations; these characteristics are school vision and mission, school culture, school structure, school strategies, and policy and resources. Of these characteristics, culture appears to be the primary factor influencing organizational and collective learning. The authors found that structure and strategy had moderate effects on organizational learning. Leithwood, Jantzi, and Steinbach (1998) through interviews with teachers, identified conditions within schools which either fostered or inhibited collective learning. The authors state, “Overall, school culture, structure, and strategy were cited with almost the same frequency...culture appears to be the dominant influence on collective learning” (p. 76). According to Janz and Prasarnphanich (2003), organizational culture is one of the most significant inputs to effective knowledge management and organizational learning. The authors emphasize that corporate/school culture determines beliefs, values, and systems that could encourage or impede learning (knowledge creation), knowledge sharing, and decision-making. Furthermore, the most effective organizational learning strategies should center on strengthening and developing organizational cultures (knowledge-centered cultures) or learning cultures (DeTienne & Jackson, 2001). Schein (1996) proposes that leaders evaluate the preexisting culture and utilize elements in that culture that can be positively used to create new ways of working that are more effective. The author emphasizes that building on what is working is more effective than criticizing what is

not working and prompting the evolution of the culture is much easier and more palatable than trying to change it. Leithwood, Jantzi, and Steinbach (1998) argue that the two primary factors in stimulating organizational learning are collaborative and collegial school cultures (elements of a professional community) and strong leadership. Donaldson (1998) describes important elements supporting an organization when he states, [organizations as cultures focus on] "...values, norms, beliefs, and cultural expression or symbols (languages, rituals, sagas, myths) that hold the organization together" (p.189).

Building Staff Capacity Through Effective Teams

Bruffee (1999), Katzenbach and Smith (1993), and Bolman and Deal (1997) emphasize the need to build trust and common purpose in groups to support relationships. Katzenbach and Smith (1993) state, "The best teams invest a tremendous amount of time and effort exploring, shaping, and agreeing on a purpose that belongs to them both collectively and individually" (p. 3). The authors emphasize that building common purpose leads to change and reacculturation of the existing groups into one cohesive group [Katzenbach & Smith (1993), Bolman & Deal (1997), Bruffee (1999)]. Such collaborative work builds knowledge within the organization and achievement of tasks otherwise thought to be incomprehensible. Bruffee (1999) states, "People who take part in a collaborative enterprise such as this exceed, with a little help from their friends, what no one of them alone could have learned, accomplished, or endured." (p. 9). Katzenbach and Smith (1993) believe that a shared purpose will make teams effective. In comparison, Bolman and Deal (1997) concentrate on the structure of roles and relationships in building an organization. Bruffee (1999) believes that an interdependence and team atmosphere is built as employees interact in a collaborative environment. Nonaka and Takeuchi (1995)

believe that the learning that takes place from others and the skills shared with others need to be internalized in order for knowledge to be created.

Organizational Learning—Adapting to Change

When describing the symbolic frame, Bolman and Deal (1987) state, “Symbols embody and express an organization’s culture—that interwoven pattern of beliefs, values, practices, and artifacts that define for members who they are and how they are to do things. Culture is both a product and a process. As a product, it embodies accumulated wisdom from those who came before us. As a process, it is continually renewed and re-created as newcomers learn the old ways and eventually become teachers themselves” (p. 217).

Morgan (1998) begins with a confirmation of the generally accepted perspective that the external environment produces challenges to organizations, thus resulting in organizational change.

The author emphasizes that culture is not something that can be measured on a scale because it is a form of lived experience and author compares organizations to an organism adjusting to its environment. Morgan (1998) states, “A learning organization has to become skilled in breaking the boundaries separating it from its environment, to engage and experience the environment as fully as possible (p. 91). As the environment changes, the organism must adapt to the environment. If the organization is to survive, it too must acclimatize to the environment. Morgan (1998), Donaldson (1998), and Davis (2003) explain the need for organizations to be flexible, open-minded, and adaptive to the environment. Morgan (1998) and Davis (2003) contend that the key to organizational learning is a constant renewal of processes; an organization that appears refreshed, revitalized, open, and flexible has learning taking place.

Donaldson (1998) supports that organizations must be open-minded and adaptive in order to achieve the greatest understandings and to, therefore, achieve the greatest outcomes.

All of the authors studied discuss different facets of organizational learning through change, growth, innovation, and renewal of organizational systems and processes. Davis (2003) contends that the key to organizational learning is constant renewal—“...an organization in the renewal phase begins to reexamine systems, procedures, and processes” (p. 160). Davis’s (2003) theories parallel those of Morgan’s (1998) through the emphasis of organizations “living and renewing” on a constant basis.

Within an organization, there are multiple facets of learning taking place, incorporating both group and individual learning. Cook and Yanow (1993) contend that organizations learn as a collective group and that organizational learning is different from individual learning. Unlike individual learning, organizational and group learning is not primarily a cognitive activity and is not necessarily observable or a response to stimulus.

Organizational Learning and the Knowledge-Creation Process

Learning is suggested through an organization’s culture—human groups that can and do act collectively (Cook & Yanow, 1993). Organizations are constantly involved in activities centered on “modifying or maintaining meanings and embodiments to preserve cultural identity” (Cook & Yanow, 1993, p. 452). Nonaka and Takeuchi (1995) also recognize that organizational learning is a process of constant renewal and development as they explain the knowledge creation process that takes place in a learning organization. The authors describe the process as “an expanding community of interaction which crosses intra- and inter-organizational levels and boundaries” (p. 59). Organizational learning is fostered on two levels. The first level is single loop learning, which “involves incremental updating of knowledge” and double-loop learning,

which is the “acquisition of knowledge that is intended to ensure the long-term future of the organization in a changing environment” (Hanson, 2001, pp. 641-642). Nonaka and Takeuchi (1995) contend that learning is communicated through a knowledge conversion spiral which involves “socialization [tacit to tacit], externalization [tacit to explicit], combination [explicit to explicit], and internalization [explicit to tacit]” (p. 57). The spiral is driven by conditions that foster knowledge creation. These conditions are organizational intention, individual autonomy, fluctuation and creative chaos, redundancy, and requisite variety. Once these conditions are in place, five phases of knowledge creation which are sharing tacit knowledge, creating concepts, justification, building archetypes, and cross-leveling of knowledge can emerge (Nonaka & Takeuchi, 1995). The authors think the most effective way to communicate and create knowledge is through self-organizing teams.

As organizational knowledge becomes more important as a source for meeting the ever-increasing demands for accountability of administration, staff, and students in the school organization, the capacity to learn and develop becomes even more important to the organization (Yukl, 2002). The creation of a learning organization can facilitate the needed adaptation to the environment and continuous progress toward an environment that nurtures and develops student achievement. As organizational learning and change occurs, the organizational culture will likely change as well. Educational leadership is paramount in developing a system of open communication and professional dialogue that supports staff and enables them to flex with the changes, formulating the new culture of a learning organization (Senge, 1990)

Leadership and Communication for Organizational Learning

This segment focuses on organizational leadership, specifically in creating and cultivating open communications and productive dialogue as critical pieces of organizational

learning and building staff capacities and commitment to organizational goals. The following subheadings are used to guide the reader through this portion: *Leadership and Capacity Building—Meeting Multiple Needs, Adapting Leadership to the Cultural Context, Building Relationships and Supportive Structures Within an Organization, and Professional Dialogue and Communications – the Foundation for a Learning Organization.*

Studies show that communication is key to organizational learning. Leithwood, Jantzi, and Steinbach (1998) identified better communication networks between administrators and staff one of the primary components of organizational learning. The authors state, “[no organizational learning occurs] ...without professional talk related to shared norms, values, and beliefs about, for example, professional responsibilities, the nature of teaching, and the value of colleagues’ expertise, that influences the level of individual and collective motivation to learn” (Leithwood, Jantzi, & Steinbach, 1998, p. 270). This review demonstrates that leaders who focus on enhancing communications and dialogue positively impact organizational learning.

Rusch (2005) states, “Organizational learning is dependent on members developing strategies to communicate honestly and to give feedback about issues that are institutionally taken for granted” (p. 90). Open and honest communication is a critical component for organizational learning in a school district. Rorrer (2002) described superintendents who “did not foster any illusions,...hide the problems,...[or] ignore the issues” as key to breaking the cycle of inequity in two school districts (In Rusch, 2005, p. 90). Giles and Hargreaves (2005) emphasize that systems thinking, improved dialogue, deep learning, and better communication are components of a learning organization. The authors indicate that these components help “...everyone to see the big picture of the school and be more aware of the likely consequences of their own preferences and actions on the whole school community” (p. 141).

As organizational leaders plan, changes occur, presenting additional opportunities for communications and dialogue contributing to organizational learning (Senge, 1990). Leaders must encourage open communication and productive dialogue in order for team and organizational learning to take place (Cardno, 2002). Fullan (1996) further supports the importance of an open communication between school staff with discussions of whole school development, "...supporting and helping develop teachers' commitments, capacities and opportunities to engage in reform" (p.719). Leithwood and Jantzi (1999) contribute to how the leader affects organizational learning and development by describing the effect of transformational leadership practices on organizational conditions and student engagement.

Leadership and Capacity Building – Meeting Multiple Needs

Hanson (2001) explains that in order for an organization to learn, the leaders of the organization must accumulate intellectual capital, which is the acquired knowledge on which decisions are based and human capital, which is the expertise of staff to use intellectual capital effectively. Intellectual capital and human capital are used to solve problems faced by the organization.

In a learner-centered or knowledge-centered organization learning is evaluated by the degree to which learners' unique needs are accounted for, learning is relevant and meaningful to the learner, the learner is actively engaged in the learning process, the learning environment is positive, and the learning occurs as a natural process (McCombs & Whisler, 1997). According to Hanson (2001), an organization has demonstrated learning if it has acquired new knowledge. Nonaka and Takeuchi (1995) contend that for new knowledge to be acquired the organization must have clear intentions or goals, resulting in the development of organizational strategies. The authors assert that the organization's primary learning strategy is to develop the capability to

acquire, create, accumulate, and exploit knowledge and that the most critical element is to conceptualize a vision about the kind of knowledge developed and put into practice. The organization's vision is conveyed by teams who create and verbalize an organizational model; the model is then assessed by remaining members in the organization as to whether it is worthwhile to pursue (Nonaka & Takeuchi, 1995).

Adapting Leadership to the Cultural Context

Cook and Yanow (1993) contend that leaders not only need to be aware of the uniqueness of the local and organizational context but also need to observe, develop, and adjust to the cultural context involving people in the organization as well as the community. School culture is a vital part of the collective interactions of the group because the culture is “shaped around a particular combination of values, beliefs, and feelings [which]...emphasize what is of paramount importance” (Hanson, 2001, p. 641). Each learning organization uses values, beliefs, ideals, and feelings to uniquely approach learning. Organizational culture involves assumptions, beliefs, and values that are shared by groups and members of the organization (Yukl, 2002). As organizational learning and change occurs the culture can be influenced in many ways (Yukl, 2002).

A critical component in a successful organizational culture is the role of leader in influencing cultural change. Yukl (2002) emphasizes that culture can be influenced by many aspects of a leader's behavior including examples set by the leader, what the leader attends to, and how the leader makes selection, promotion, and dismissal decisions. Davis (2003) asserts, “leaders become change masters by creating new myths and rituals...performing symbolic actions, and communicating new values and beliefs” (p. 159). Cook and Yanow (1993) say that organizations learn as a group, through cultural interactions and activities designed to preserve

the organization's cultural identity. The authors assert that such activities constitute organizational learning. Cook and Yanow (1993) express the importance of culture to organizational learning, "...they [organizations] are seen to learn through activities involving cultural artifacts, and that learning, in turn, is understood to entail organizations acquiring, changing, or preserving their abilities to do what they know how to do" (p. 452). Mitchell and Sackney (1998) contend that organizational learning blooms with a school culture that encourages collaboration, dialogue, and diversity. The valuing of diversity provides an environment where staff members feel safe to reflect upon and express their individual beliefs and to explore alternatives not previously considered.

Building Relationships and Supportive Structures Within an Organization

In K-12 organizations, the building of human relationships is crucial to providing a positive, collaborative working and learning environment. Characteristics such as an atmosphere of trust, interdependence, mutual accountability, common purpose, and open communications are key components for building positive relationships within an organization [Katzenbach & Smith, 1993; Bolman & Deal, 1997]. Katzenbach and Smith (1993) further identify these characteristics as the foundation for building high performing teams.

Building positive relationships makes change easier and more palatable for school organizations. Nonaka and Takeuchi (1995) and Morgan (1998) suggest various methods for implementing positive change in organizations in order to create an atmosphere conducive to learning. These methods include incorporating staff into the decision-making process. Grogan (2003) concurs with this leadership approach and reminds us that individuals think and perceive situations differently. Leaders should involve all stakeholders in the decision-making process. In school organizations, the superintendent becomes the agent of change (Grogan, 2003) inducing

collective agreement between organizational members and supporting them in their efforts. The author emphasizes that leaders can make a huge impact by decentralizing authority (supporting and guiding others experiencing change), being sensitive to local contexts, and promoting collaboration in the community and amongst staff. Although the future must bring changes, with the changes come opportunities for organizational learning. The leader must adapt his/her methods of leadership to fit the local context and relationships needed in the community and organization (Grogan, 2003). Katzenbach and Smith (1993) remind us as change takes place in relationships, organizational members must recognize the contributions they can make as well as appreciate the contributions of their colleagues.

Professional Dialogue and Communications – the Foundation for a Learning Organization

Peter Senge (1990) contends that learning organizations are organizations where people continually expand their capacity to work [as a team] toward result they desire. The author contends that organizations must discover how to tap people's commitment and capacity to learn at all levels (Senge, 1990). Senge (1990) focuses on decentralizing the role of leadership in organizations in order to expand the capacity of all people to work toward the same goals. Another one of Senge's (1990) visions for leadership is that he believes leaders should align and develop the capacity of a team so that they work within a shared vision—a set of principles and guiding practices. Senge (1990) believes the discipline of team learning begins with dialogue—the capacity of members of a team to suspend assumptions and enter into a genuine “thinking together” (p. 243). The author emphasizes that thinking of each other as colleagues is critical to establish a positive tone and to offset the vulnerability that dialogue brings. Senge (1990) contends, “...dialogues are diverging; they do not seek agreement, but a richer grasp of complex

issues” (p. 247). Part of the advantage of dialogue is the collection of a larger meaning that can only be achieved by a group or team of people in the organization.

Summary

With increased requirements for accountability of administration, staff, and students, organizations (both academic and corporate) are pursuing the notion of making more effective use of the knowledge and expertise within their organization (Janz & Prasarnphanich, 2003). Leaders in the practice of organizational learning (knowledge management) struggle with developing a culture that “embraces and rewards knowledge-sharing in all its manifestations such as learning, mentoring, collaboration, etc.” (Janz & Prasarnphanich, 2003, p. 352).

In order to nurture change, leaders must focus on community building and creating a “culture of inquiry and critique” (Doyle, p. 196). Literature supports the view that educational leaders who incorporate open and honest communications promote organizational learning throughout the school. This review demonstrates that communicative leadership, along with an environment built on trust, inter-dependence, and positive team building significantly enhances organizational learning and a knowledge centered culture in a school district.

Methodology

Action Research Paradigm

Research Paradigms and Action Research

Coghlan and Brannick (2005) identify three main traditions of positivism, hermeneutics, and critical realism. The authors indicate that action research and participatory action research incorporate pieces of each of these traditions. The dominant approach in organizational studies and management has been positivism (Coghlan and Brannick, 2005). According to the authors, this approach adheres to objectivist (realist) ontology and an objectivist epistemology. Positivists concentrate on the application of scientific methods and the creation of generalizable knowledge. The hermeneutic tradition "...argues that there is no objective or single knowable external reality and that the researcher is an integral part of the research process, not separate from it" (Coghlan & Brannick, 2005, p. 6). Hermeneutic inquiry is directed toward reflecting on the researcher's own practice and provides rich, deep data. The third approach, critical realism, aligns most closely with the purposes of action research. This approach combines a subjectivist epistemology (similar to the hermeneutic tradition) with objectivist ontology (like the positivists) (Coghlan & Brannick, 2005). Coghlan and Brannick (2005) provide a clear explanation of the purpose behind action research as they state, "Action researchers work on the epistemological assumption that the purpose of academic research and discourse is not just to describe, understand, and explain the world but also to change it" (Reason and Torbert, 2001, p. 7).

Foundations of Action Research

Coghlan and Brannick (2005) suggest that action research is an approach to research which aims at both taking action and creating knowledge or theory about that action. The authors emphasize that the outcomes are both an action and a research outcome compared with

traditional research approaches that aim at creating knowledge only. Coghlan and Brannick (2005) contend that action research works through a cyclical process of consciously and deliberately planning, taking action, evaluating the action, and leading to further planning. A second dimension of participatory action research is that it is collaborative—participants in the study play an active part in each stage of the cyclical process.

Particularly appropriate for this study, Mitchell and Sackney (1998) contend that action research methods have the power to foster organizational learning when they state, “Personal and collective reflection and dialogue can inform the discourse of the practioners and can contribute to a collaborative reconstruction of current practices... action research strategies support organizational learning through development of more inclusive meanings, more productive connections, more sustainable processes, and more effective practices” (p. 197). Herr and Anderson (2005) state, “While action research shares some similarities with qualitative research (and even quantitative research), it is different in that research participants themselves are either in control of the research or are participants in the design and methodology of the research” (p. 1). This contrasts with traditional research where participants are objects of the study (Coghlan & Brannick, 2005). All authors (Coghlan & Brannick, 2005; Creswell, 2002; Stuart, 1998; Denscombe, 1998; Herr and Anderson, 2005) emphasize that it is imperative that research methods be appropriate for the circumstances and for meeting needs identified. Coghlan and Brannick (2005) emphasize that action research is fitting when “...the research topic is an unfolding series of actions over time in a given group, community or organization, and the members wish to study their own action in order to change or improve the working of some aspects of the system, and study the process in order to learn from it. Hence action research is akin to experiential learning and reflective practice” (p. xii).

Action Research and Organizational Learning

Stuart (1998) emphasizes, "...[participatory action research] is a response to the pressure to make research more relevant to the ongoing work of practitioners and to apply the processes of change in a way that directly benefits the participants and involves them in guiding the research project" (p. 299). Patton (1997) supports the use of action research to "...gather systematically collected and socially constructed knowledge and to create a learning organization" (p. 99). Patton (1997) links participatory action research to participatory evaluation in organizations. The author emphasizes that many evaluation experts view participatory evaluation as a means of creating an organizational culture that is committed to ongoing learning and therefore is linked to becoming a learning organization. Preskill and Torres (1999) confirm the value of participatory evaluation using social interaction when they state, "...learning from evaluative inquiry is a social construction occurring through the involvement of multiple constituencies each representing different perspectives. It is socially situated and is mediated through participants' previous knowledge and experiences" (p. xix). Coghlan and Brannick (2005) emphasize that action research is closely related to evaluative inquiry which is "a reformulation of evaluation practices through an emphasis on using the process of inquiry to generate organizational learning" (p. 19). The authors note that many of the processes within action research (collaborative inquiry, reflection, joint planning, and taking action) are "...used as interventions to shape how projects are evaluated in order to stimulate organizational learning" (Coghlan & Brannick, 2005, p. 19).

Creswell (2002) says that action research in educational settings centers on a systematic inquiry done by teachers, administrators, or other individuals to gather information on and improve a specific area of the organization. The improvement is made by individuals studying

problems or issues they face and then focusing on an iterative approach to resolving the problem. The author identifies two primary forms of action research: practical and participatory. The purpose of practical action research is to focus on improving practice. Creswell (2002) believes studying local practices, involving individual or team-based inquiry, focusing on teacher development and student learning, and implementing a plan of action are primary components of action research in a school setting. Denscombe (1998) agrees that action research needs to be practical and be used to solve real-world problems. Denscombe (1998) states, “Action research is essentially practical and applied. It is driven by the need to solve practical, real-world problems...[the research] needs to be undertaken as part of practice rather than a bolt on addition to it” (p. 59).

Social Changes and Implications of Action Research

Creswell (2002) stresses that participatory action research has a social and community orientation and encourages research that contributes to emancipation or change in our society. Participatory action research focuses on improving the quality of people’s organization, community, and family lives (Creswell, 2002). Creswell (2002) identifies the following components of participatory action research: studying social issues that constrain individual lives, emphasizing equal collaboration, and focusing on life-enhancing changes. Creswell (2002) emphasizes that the primary purpose of action research is to resolve issues and engage in constant reflection, thereby improving and empowering individuals in schools, systems of education, and school communities. All authors (Coghlan & Brannick, 2005; Creswell, 2002; Stuart, 1998; Denscombe, 1998; Herr & Anderson, 2005) agree that participatory action research centers on caring about people, creating tangible change in the lives of those who participate in the research, and making a useful contribution to the organization. Based upon the above

characteristics, and with its orientation toward team participation, this study is based on participatory action research.

Performing Action Research in One's Own Organization

Coghlan and Brannick (2005) caution that performing action research in one's own organization can encompass several challenges. The authors state, "... the researcher has to balance the membership role he or she holds and hopes to continue to hold with the additional role of inquiry and research" (p. 32). Herr and Anderson (2005) emphasize that practitioner researchers often want "...to study the outcomes of a program or actions in their own setting, much like an internal evaluation study" (p. 33). The inside researcher should not attempt to separate the study of his or her own self and practice from the study of the outcomes of actions initiated in the setting. Doing action research means being engaged in a more rigorous series of diagnosing situations, planning and taking action and evaluating than is perhaps the norm (Herr & Anderson, 2005). Also, the organization typically attaches an expectation or contract that the research will make a useful contribution to the organization. Some issues include gaining access and receiving permission, as well as maintaining support from peers and other leaders within the organization (Coghlan & Brannick, 2005). The authors emphasize that handling interpretations or outcomes that would be perceived negatively by the organization must be truthfully, but carefully handled.

Ethical Dilemmas of Action Research

Conducting action research involves several ethical dilemmas. One of the dilemmas lies in the level of participation of the members in the study. Stuart (1995) states, "The involvement of the research participants in the design and implementation of the research has the potential to raise ethical dilemmas that are not adequately addressed by the current codes of conduct for

research with humans” (p. 299). Stuart (1995) emphasizes that the codes were designed for other types of research where participants are objects of the research. Codes of ethical conduct are inadequate to cover action research that “...cares about the people and is committed to creating tangible change in the lives of those who participate in the research” (p. 299). With these concerns come additional responsibility on the part of the researcher to raise protection of participants to a higher level.

All of the authors studied (Belmont Report, 1979; Campbell, 2003; Stuart, 1998; Young, 2003) discuss the necessity of using ethical principles and conduct when performing research involving human beings. The Belmont Report (1979) and Campbell (2003) discuss basic ethical principles and codes of ethics that assist researchers in resolving ethical issues that surround research using human subjects. Campbell (2003) further elaborates on ethical conduct, indicating that ethical principles should be intrinsic and embedded in a professional’s daily practice. Stuart (1998) emphasizes the importance of participant input into the research process and believes additional standards should be written to require this key element particularly in participatory action research projects. Participatory action research distinguishes itself from other forms of research in that action research requires use of a framework “...that cares about the people and is committed to creating tangible change in the lives of those who participate in the research” (Stuart, 1998, p. 299).

The Belmont Report (1979) provides a structural framework of basic research guidelines and principles. This framework incorporates three basic ethical principles (1)respect for persons: protecting the autonomy of all people and treating them with courtesy and respect; (2)beneficence: maximizing good outcomes for humanity and research subject, while minimizing or avoiding risks or harm; and (3)justice: ensuring reasonable, non-exploitative, and well-

considered procedures are administered fairly (the fair distribution of costs and benefits). Those principles remain the basis for the human subject protection regulations. Another piece of this framework includes informed consent in which participants must be given enough information that they fully understand the implications of the research (procedure, purpose, risks, benefits, and alternatives). Campbell (2003) adds another dimension by incorporating the researcher's values and ideals to do "what is right". Campbell contends, "becoming familiar with the principles inherent in such ethical codes may have intrinsic value" (p. 120). The author concludes that the intrinsic value will enable the researcher to practice ethical conduct not only when performing research, but also in daily practice as a professional.

Stuart (1998) suggests that general expectations and guidelines for traditional scientific research, although sufficient for other types of research, are not sufficient for participatory action research. Participatory action research takes informed consent one step further by engaging the participant in continual communication, negotiations and informing them of potential implications/risks (Stuart, 1998). Stuart (1998) contends that participatory action research requires a higher-level commitment on the part of the researcher to perform research as an avenue to positively change (benefit) the lives of those who participate. Young (2003) and Stuart (1998) both agree that the researcher has a certain "power" and control over the participant and certainly over the research being performed. Stuart (1998) contends that participatory action researchers are obligated to use their power for the direct advantage of individuals and to adopt an ethic of care into the guidelines they follow throughout their research. Participatory action research takes the principle of non-maleficence (no harm) to a higher level than with other types of research; the action researcher must take into account how the research affects the social and

day-to-day life of the participants (The Belmont Report, 1979; Stuart, 1998). Thus, the researcher must be especially careful to protect participants during an action research study.

This research project is approved by the campus IRB for the University of Missouri-Columbia (Appendix A). Written permission for interviews was obtained for each individual (Sample - Appendix A). In addition, cautions were taken to protect individuals participating in the project by using pseudonyms throughout.

Quality and Validity of Action Research

Reason and Bradbury (2001) suggest action researchers must ask questions that inquire into and seek ensure quality of participation and relationship in the work. The authors identify five issues for improving the quality of action research: relationships, practical outcomes, extended ways of knowing, purpose, and enduring consequence. Although each issue is described separately, there is overlap among the five issues.

The relationship issue is addressed by ensuring the action research group is set up for maximum participation. The question should be asked, "Do all feel free to be fully involved?" (Reason & Bradbury, 2001).

Practical outcomes are addressed when participants can say that the information gained was useful and they are using what they have learned. People should be willing to act on what has been learned in the course of research (Reason & Bradbury, 2001).

The extended ways of knowing issue addresses quality through conceptual-theoretical integrity, quality through extending our ways of knowing, and quality through methodological appropriateness (Reason & Bradbury, 2001). Through conceptual-theoretical integrity, the quality of action research can be investigated by questioning whether the theory is practical and though deep knowledge is obtained in one case, can the findings be generalized. Researchers can

also draw upon current qualitative and ethnographic practices of making sense of data (Reason & Bradbury, 2001). Quality through extending our ways of knowing is the action researcher's way of providing practical knowledge to individuals (Reason & Bradbury, 2001). Quality through methodological appropriateness addresses the need for the researcher to use proven methods, such as surveys and interviews to engage participants in an iterative process (Reason & Bradbury, 2001).

Quality as engaging in significant work addresses the issue of whether the research is worthy of attention. The researcher should be able to answer the question, "Is the purpose of this research significant?" (Reason & Bradbury, 2001).

Action research incorporates knowledge grounded in local realities and should be especially relevant and useful to local participants. It may also address a broader range of organizational concerns and affect behaviors beyond the original intent (Herr & Anderson, 2005). The issue of enduring consequence addresses the concern of whether the action research has long-term implications on the organization or on future knowledge. Reason and Bradbury (2001) suggest that action research many times starts as a small engagement of people working on a project or concern together and grows into an ongoing change of behavior at a much higher level. Although transformation may be slow, behaviors are created and begin to alter organizational patterns of behavior (Reason & Bradbury, 2001).

Methods and Data Collection

Action research methods were used to examine the effects of utilizing new web-based technology as a tool to help improve communications and collaboration throughout this school organization. A four-prong, two cycle action research design (Coghlan & Brannick, 2005) was used to examine the effects of using pieces of technology, specifically an Intranet portal, as a tool

to increase communications among and between administration, teachers, and staff throughout this school organization. The four prongs in each cycle include diagnosing, planning action, taking action, and reviewing/evaluating/reflecting upon the results of the action taken.

Coghlan and Brannick (2005) suggest a pre-step to the action research cycle is understanding and establishing the context and purpose of the project. Part of the pre-step is evaluating the economic, political, and/or social forces driving change (Coghlan & Brannick, 2005). Two additional pieces of the pre-step include the process of defining the desired future state after the change has taken place, and establishing collaborative relationships with those who have ownership in the project (Coghlan & Brannick, 2005). The first main step in the action research cycle is diagnosing, which involves clearly identifying and articulating the issues as a working theme (Coghlan & Brannick, 2005). Diagnosing is a collaborative step that provides the basis on which actions will be planned and taken (Coghlan & Brannick, 2005). Through the planning action step, the context and purpose of the project are analyzed and the diagnosis and issues are framed to assure the action is consistent with the desired outcome (Coghlan & Brannick, 2005). Plans are implemented and interventions are made through the taking action step (Coghlan & Brannick, 2005). In the evaluating action step, the outcomes are examined to see if the original diagnosis was correct, if the action taken was correct and if the action was taken in an appropriate manner. The evaluation step also feeds into the next cycle of diagnosing, planning, and taking action (Coghlan & Brannick, 2005).

Background Data – Cycle I

The District gathered data then planned for an intervention to communication issues. I gathered some data (minutes, memos, emails, newspaper articles, and journaling) to help

understand the background of the study. All data up to where the end of the first cycle began are publicly available.

The portal was put into place as an intervention and initially released to a pilot group of all administrators (central office administrators, building administrators at all levels including high school, junior high, middle school, and elementary) and a limited number of teachers in order to gain feedback before releasing it to the entire Pleasant Valley Schools faculty and staff.

Baseline Data – Cycle I

My study began in the third/fourth prong of the first cycle with reviewing and evaluating effects of the intervention (initial implementation of the portal). I interviewed administrators and teachers, asking questions on how/if this use of technology has improved communications and collaboration and for recommendations for improving the site with the focus of increasing communication and collaboration. Once the interviews were completed, this information was provided to the superintendent and communications coordinator. The district further investigated staff perceptions of intra-district communications through the portal by placing an anonymous, online survey on the portal for staff to complete. The technology team was given the same information provided to the superintendent and communications coordinator in addition to the results from the online survey. The superintendent, communications coordinator, and I met with the technology team to request changes be made to the portal; dialogue sections (discussion forums and book studies) were added to assist in improving communications and opportunities for collaboration amongst staff.

In terms of action research, Cycle I was composed of initial implementation of the first phase of the portal (intervention/action). Data were gathered (review/evaluation) and planning took place to increase communication in the District by adding dialogue/discussion and book

study sections to the portal (titled PVSIntranet); action/intervention for Cycle II took place during the 2006-07 academic year. Book study groups and focus group discussion forums were added to the portal during the 2006-07 year to increase professional dialogue (Senge, 1990) and communication amongst and between faculty and staff.

I collected such data as meeting minutes, memos, district communication plans (Pleasant Valley Comprehensive Communications Plan, 2006-07; Pleasant Valley Comprehensive Communications Plan, 2007-08) and newspaper articles, as well as used journaling as a method to document the process in order to understand the intervention as well as to develop baseline data for the future cycles (another intervention). In addition, all certificated staff were surveyed on their use of technology for internal communications, including specific questions on their use of the portal for communications and professional dialogue. Administrators and central office staff were interviewed and asked questions on how they use technology and how and if so in what ways they perceive technology to be contributing to professional dialogue and communication amongst faculty and staff.

Using double-loop learning principles as a guide, my role as a researcher was to gather data to find out if communication in the form of professional dialogue was increasing as a result of usage of the PVSIntranet portal or other forms of technology, and to provide this information to the technology team, the district communications coordinator, and district administration. Further, is the professional dialogue, through increased communications, contributing to organizational learning? The data was reviewed and analyzed with the purpose of determining if PVSIntranet was meeting the communication requirements and evaluating if the end goal was achieved—furthering communications to move toward organizational learning (Diagnosing).

Recommendations/changes to the portal to further improve communications (Planning) were also made.

The technology team is primarily composed of people who, while being well versed in technical support, are not well versed in education issues. As an educational leader, I encouraged the team to focus on using the portal as a tool for educational and communication purposes, rather than focusing on the technology itself. This technology team was involved in both action research cycles in the planning and taking action steps; they were responsible for bringing their expertise of technology to the table to assist in resolving communication and dialogue issues.

Ideally, organizational learning will occur if the school district can take a critical look and question current operating norms, especially in the area of communications (professional dialogue), and initiate appropriate interventions from feedback. As Morgan (1997) states, “It is this kind of self-questioning ability that underpins the activities of systems that are able to learn to learn and self-organize” (p. 86).

Setting

This study will affect all employees (faculty, administration, and staff) of the Pleasant Valley School district through a district-wide implementation and integration of a piece of technology as a communication tool.

As mentioned in an earlier section, Coghlan and Brannick (2005) suggest a pre-step to the action research cycle is understanding and establishing the context and purpose of the project. Part of the pre-step is evaluating the economic, political, and/or social forces driving change (Coghlan & Brannick, 2005). Two additional pieces of the pre-step include the process of defining the desired future state after the change has taken place, and establishing collaborative relationships with those who have ownership in the project (Coghlan & Brannick, 2005). The

context and purpose of this project is to evaluate whether or not using technology (PVSIntranet) for dialogue and communication, moves this school district toward organizational learning. The political and social forces driving change include forces from leadership in the district (administrators) as well as a driving force from staff who desire to be heard and incorporated into the decision-making processes of the district. Primary owners and collaborators for this project include the superintendent, communications coordinator, the technology team, and the researcher.

Participants

Active participants in this action research study included two members of the technical support department in the school district, the superintendent, and the district communications coordinator. The two technical support people were directly involved with creating and designing parts of the portal to enhance communication and dialogue, guided through feedback from the data and parameters set by the superintendent, communications coordinator, and me. Interviews and surveys, both formal and informal, of central office administrators, principals, and teachers were also part of this study.

The interviews gave perspectives from multiple levels in the school district. Principal interviews were used to gather perceptions from building-levels as well as from a district-level on communications and dialogue between staff and between staff and administrators. The superintendent's interviews were critical through identifying the leader's perspective and how this perspective affects the vision, purpose, and environment throughout the district. The communication coordinator in this district serves as the "communications bridge" between staff and administrators and many times between administration and the public. The insights (gathered from the interviews and meetings) of the communications coordinator assisted in pulling all of

the communication facets together. In addition, her guidance and suggestions for changes on the portal (to technical support staff) were fundamental in articulating the communication/dialogue needs of staff and administration.

Research Cycles

Cycle I

Diagnosing. During the Fall of 2005, faculty and staff began criticizing school administration, particularly central office staff, for poor communication with their faculty and staff. Several communication frustrations developed. For example, one communication issue appeared when the district designed and prepared to launch a new professional development program without what teachers perceived to be adequate input. Ten teachers were selected and paid a stipend to serve as “model” classroom teachers in model professional development classrooms. Teachers were upset with the methods used to select the model professionals and with the “secretive” approach with which the program was announced. The local newspaper reported continued frustrations with intra-district communications, particularly between administration and the teaching staff. Newspaper articles indicated the district climate was such that faculty feel their opinions and suggestions are not welcomed or invited by the administration into the decision-making process. The president of the local community teachers association indicated there was either miscommunication or lack of adequate communication between faculty and staff. Also, building administrators indicated that their staff was feeling like district administration didn’t have a sense of what was going on in the buildings. District and building meetings provided a general sense of unrest and disappointment with the lack of communication in the district (Notes, September, 2005).

Planning. The superintendent and district communications coordinator asked technical support services to assist in increasing intra-district communications. The superintendent indicated that the board of education and administration wanted to be supportive of their teachers and staff and wanted to provide the support needed to do their jobs well. Another concern of the superintendent was that many times faculty and staff would learn through the media (newspaper especially) of administrative events occurring rather than through the appropriate channels. The technology department was recruited to assist in investigating options to increase communications to large groups (to include the entire district) instantaneously. One of the options was to release a web-based Intranet portal which would contain updated information on administrative issues.

Taking Action. PVSIntranet, an intranet portal, was launched in February, 2006. The portal contained constant up-to-date information on personnel matters, staff salary and benefits, employee information including news releases, survey results, superintendent updates, and a “grapevine” section where employees could submit questions on various topics of concern.

Evaluating/Reviewing. The district staff conducted a survey and canvassed staff (through informal interviewing as well as forums) to evaluate the effectiveness of the portal, and to discover whether or not use of the portal and use of other pieces of technology were being used to increase intra-district communications primarily between administration and staff. Improvements that came from the staff suggestions from the survey and interviews included: A “guaranteed anonymous” question and response area for the grapevine section of the portal, designated discussion and dialogue areas, book study areas, survey section, and an employee discount/local business benefits section. Leadership in the district took the need (from data gathered through interviews and the staff survey) for a broader spectrum of communications and

a higher level of communications/dialogue to another level by establishing a communications committee. The committee was comprised of teachers, administrators, board members, the communications coordinator, and outside community members who represent constituents throughout the district and community. This committee, lead by the district communications coordinator, composed a written comprehensive communications plan that is updated on a yearly basis. This plan included communications responsibilities for board members, district committees, forums and public hearings, interactions with elected officials and special groups, meetings with students, newspaper, radio, and television, publications and surveys, and includes a section on Internet/Electronic communications.

In response to staff suggestions from the survey and interviews, another release of the portal with new and improved communications pieces was planned for release during the Fall of 2006. The new improved portal was the “taking action” step of the next cycle and is described in more detail in the Cycle II section below. Part of the action research cycles overlap in a continuous series of phases—evaluating/reviewing of one cycle becomes the starting point and foundation for diagnosing, planning, and taking action in the next cycle.

Cycle II

Diagnosing. The district comprehensive communications plan, results from the survey, and implications from informal interviews set the stage for improvements of the portal, and the focus for Cycle II of the action research project. Results from surveys and interviews indicated a strong desire for constituents to use the portal for more than basic level communications (primarily a news-driven, one-way device) to one in which dialogue and collaboration could take place between groups of faculty as well as administration to faculty through discussion groups and forums. Additional indicators of communication barriers between faculty and administration

were continuing to be an issue. As a result, one of the strategies of the district comprehensive communication plan specified that PVSIntranet would be designed to eliminate the degrees of separation between the Pleasant Valley Schools employees and the information they need and want.

Planning. As part of the district comprehensive communication plan, facilities community forums were established to obtain faculty and staff input on needed changes and improvement to facilities. Topics for the forums were determined by a survey of faculty and staff posted on the PVSIntranet. The superintendent and district communications coordinator and I worked with technical support services to assist in increasing intra-district communications through the portal. Focus on this implementation of the portal was to take staff to the “next level” of communications by creating opportunities through the use of technology for dialogue through forums, discussion groups, and book studies which would reinforce leadership’s aspiration in fostering organizational learning within the district (Meeting notes, November, 2006). The superintendent felt that creating a team environment with open dialogue was critical to the success of the organization—open dialogue was the foundation for organizational learning (Meeting notes, November, 2006). Initial improvements and additions, including discussion forums and book studies to PVSIntranet were launched during the Fall of 2006; improvements and additions were to continue throughout the school year.

Taking Action. Several parts of the portal were improved. The grapevine section, where staff and faculty can ask a question of administration or divulge a “rumor” that is brewing, was completely anonymous in order to make staff more comfortable with asking questions of administration and central office. The communication coordinator indicated the communication in this section of the portal is constant throughout the day. An electronic newsletter, Key

Communicator E-News has also been established for internal and external constituents who wish to receive additional communications via email (as well as communication via the portal).

Several interactive methods of communication have been established and are constantly changing including blogs and discussion groups. Discussion groups and book study areas have been developed on PVSIntranet. The discussion groups provide opportunities for faculty to dialogue with colleagues on issues they are experiencing in the classroom. Blogs are open to all and provide specific topics for dialogue.

Book studies are limited to a specific group of people who have “private access” to an area where their group of colleagues can discuss implications of the material on their daily practices as administrators or teachers. For example, the superintendent and her cabinet have a book study section accessible only by members of the cabinet—no other members of the district know this particular “book study group” exists. Through the use of the portal’s technology, groups with common interests or positions within the district can have a secure, private discussion area where they can confidentially discuss items within the boundaries of this group. In response to staff requesting that their opinions be asked and heard by administration, a survey section was added to the portal to facilitate this process. Staff can quickly be surveyed and results posted on the portal to respond to concerns, eliminating delayed responses (Communications coordinator interview, September, 2007). Also, district employees requested an employee discount/local business benefits section be added to the portal; this section was added during the early part of 2007 (Communications coordinator interview, September, 2007).

Evaluating/Reviewing. Interviews, document analysis, and an online survey were used for the evaluation stage. The purpose of the survey was to use a specific set of questions (Appendix B) designed to analyze how (and if so to what extent) faculty and staff in the district use this new

technology for communications and professional dialogue. Specifically, questions focused on what technology is being used and if it is perceived that administrators use technology to enhance communication and encourage open dialogue throughout the district (and especially between administration and teachers). Some open-ended questions exploring opportunities for collaboration and dialogue in the district were asked to further give teachers a chance to explain their perception of current practices, and desires for further improvements/changes (if any).

A computerized survey was sent to all certificated staff in May of 2007. Staff were notified that all data collected would be anonymous and that results of the study would be used to further enhance technology tools used for communication within the district. A reminder email was sent a week later. All teachers and certificated staff (approximately 1180) were emailed an online, anonymous survey. Approximately 17% of the staff (196) completed the survey.

Sixty-minute interviews were conducted with the superintendent, four building administrators, and the district communications coordinator. The purpose of the interviews was to use a general set of questions (Appendix B) which focused on uses of technology for increasing communications/professional dialogue, contributing to organizational learning within the school district. Specifically, questions focused on whether the current emphasis of leadership on using technology to enhance communications amongst and between staff and administration was working. The questions also focused on whether (and if so how) specific technologies (the portal) are being used to create and support professional dialogue and higher-level communications.

To provide a broader range of information, I reviewed several documents; some created from within the district and others from additional written communications (emails, minutes, memos). Communication plans for the past two years created by the district were reviewed as

well as minutes, memos, and observations from meetings were documented and used as a resource.

Narrative and Findings

In action research, the study design is a continuous process in which new elements emerge and evolve to further shape the study (Coghlan & Brannick, 2005). Due to the intricacy of action research and the social construction of knowledge and relationships between the researcher and active participants, the design must maintain flexibility (Coghlan & Brannick, 2005). The authors emphasize that in any one action research project two action research cycles are operating simultaneously. One cycle (the core of the project) of diagnosing, planning, taking action, and evaluating is occurring (Coghlan & Brannick, 2005). The second cycle is a reflection cycle in which the researcher is diagnosing, planning, taking action, and evaluating how the action research project is going and what she is learning (Coghlan & Brannick, 2005).

The previous section explained the action research design, procedure, data collection methods, and data analysis techniques used in this study. The purpose of this section is to report findings of the study and to summarize the findings.

Interviews, document analysis, and an online survey were used in the evaluation stage of Cycle II. For better understanding, this section is broken into the following categories:

Teacher/Staff Perspectives, Administrator Perspectives, and Meeting Notes and Written Documentation.

Teacher/Staff Perspectives

From the survey, 81% of the responding teachers indicated that most of the information they received from using technology tools was received through email and 18.5% through PVS Intranet (Table 1). Half (51%) of the responding teachers either agreed or strongly agreed that technology communications keep them informed of personnel changes, organizational structure changes, legislative updates, and items that are critical to organizational success. Sixty

nine percent indicated that they use the portal one to two times weekly, while an additional 15% use it three to five times per week. The majority of respondents used the portal primarily for staying up on current events. When asked if technology communications assists staff to better understand leadership's vision and strategic direction of the district, 55.3% of the respondents either agreed or strongly agreed. When respondents were asked if they felt that professional dialogue and communications have increased via the use of district technology and in what way, 67.5% answered yes and 32.5% answered no. Of those who answered yes, when asked specifically, how professional dialogue and communications have increased via technology, many respondents indicated that it is easier (and more convenient) to quickly collaborate and share ideas, that knowledge is more quickly and efficiently disseminated, and that the amount (quantity) of communication is increased and is more reliable and timely than hearing things by word of mouth. Several responses indicated that the district "...has greatly opened the channels of communication through PVSIntranet." Others indicate information is more accessible [through use of PVSIntranet], and more in-depth information is available. One respondent commented that in a large district having "district-wide" dialogue is difficult, and that the "grapevine" section of the portal opens dialogue from staff who may not have an opportunity to otherwise be heard. The book study and discussion forum sections of the portal were also identified as creating opportunities for professional dialogue and collaboration between staff. Some staff members pointed to the difficulty of dialoguing and reflecting through technology. The primary concern for using technology for communications stemmed from losing the "personal touch" achieved with face-to-face communications. The grapevine section received support in that it allows staff to be completely anonymous, allows them to be heard, and "...faculty don't have to rely on rumors." However, some staff indicate they are still unsure whether the grapevine is truly

anonymous, and therefore will not use it for fear of “...retribution for speaking out and giving my opinion.” (Survey, May, 2007)

Table 1, Staff Survey Responses – May, 2007

Question	Number of Responses	Percent
Which technology tool gives you the most information?	Email 157	80.5%
	PVSItranet 36	18.5%
	Voicemail 0	0.0%
	Other 2	1.0%
Which technology tool do you prefer for information?	Email 159	82.0%
	PVSItranet 31	16.0%
	Voicemail 1	0.5%
	Other 3	1.6%
Technology keeps me informed about:	People/personnel changes, etc.	
	Strongly Agree 54	28.1%
	Agree 85	44.3%
	Neutral 24	12.5%
	Disagree 25	13.0%
	Strongly Disagree 4	2.1%
	Job Posting/Organizations charts	
	Strongly Agree 31	16.2%
	Agree 63	33.0%
	Neutral 53	27.7%
	Disagree 36	18.8%
	Strongly Disagree 8	4.2%
	Legislative updates affecting schools	
	Strongly Agree 21	11.0%
	Agree 78	40.8%
	Neutral 58	30.4%
	Disagree 24	12.6%
	Strongly Disagree 10	5.2%
	What other schools are doing	
	Strongly Agree 14	7.3%
Agree 47	24.6%	
Neutral 58	30.4%	
Disagree 56	29.3%	
Strongly Disagree 16	8.4%	
Items critical to organizational success		
Strongly Agree 35	18.3%	
Agree 71	37.2%	
Neutral 54	28.3%	
Disagree 27	14.1%	
Strongly Disagree 4	2.1%	
What is the most effective tool for providing you with this information?	Email 145	75.1%
	PVSItranet 44	22.8%
	Voicemail 0	0.0%
	Other 4	2.1%

How often do you use PVSIntranet?	Not at all 17 1-2 times per wk 133 3-5 times per wk 29 Daily 11 More than daily 4	8.8% 68.6% 15.0% 5.7% 2.1%
For which purpose(s) do you most use PVSIntranet?	Professional talk or collaboration 21 Current events 101 Access applications (email, etc.) 62 Grapevine 1 Other 1	11.3% 54.3% 33.3% 0.5% 0.5%
Technology communications help me to have a clearer understanding of leadership’s vision and the strategic direction of the district.	Strongly Agree 27 Agree 78 Neutral 51 Disagree 27 Strongly Disagree 7	14.2% 41.1% 26.8% 14.2% 3.7%
Communications through technology help me to better focus my goals and objectives and how they are linked to achieving the strategic goals of the district.	Strongly Agree 20 Agree 74 Neutral 57 Disagree 32 Strongly Disagree 6	10.6% 39.2% 30.2% 16.9% 3.2%
Do you feel professional dialogue and communications have increased via use of technology? If yes, how?	Yes 68 No 62 Yes, answered how 61	35.6% 32.5% 31.9%
How do you feel additional communications and dialogue could be increased through use of technology?	Answered 79 Skipped 117	

Administrator Perspectives

Sixty-minute interviews were conducted with the superintendent, four building administrators, and the district communications coordinator. The purpose of the interviews was to acquire data through the use a general set of questions (Appendix B) focused on uses of technology for increasing communications/professional dialogue, contributing to organizational learning within

the school district. Specifically, questions focused on whether the current emphasis of leadership use of technology to enhance communications amongst and between staff and administration was working. The questions also focused on whether (and if so how) specific technologies (the portal) were being used to create and support professional dialogue and higher-level communications.

Each set of interview questions varied to probe into how (or if) communications and open dialogue were a focus at all levels in the school district, or if communications and open dialogue were desired, but not to the point of true organizational learning. In addition, the discussions in the interviews with the superintendent and with each building principal drew personal reflection, and, albeit some initial hesitancy, a sharing of thoughts and ideas of how leadership collaborates and incorporates (or doesn't incorporate) staff into the decision-making process and the "whole picture" of the district. The building principals shared details of not only how their building staffs were feeling about communications within the district but also how they perceived these same feelings were shared in other buildings as well.

Interviews were conducted with the superintendent, four building administrators (one elementary principal, one middle school/junior high principal, and two high school principals), and the district school community programs and communications coordinator. To further clarify topics emerging from administrator interviews, I used the following subheadings: *Purpose of Professional Dialogue and Collaboration in Establishing a Learning Organization*, *Leadership's Use of Technology for Communications and Dialogue*, *Building-level Perspectives on Use of Technology for Communication and Dialogue*, and *Principal Perspectives on Communication From District Leadership to Teachers*.

Purpose of Professional Dialogue and Collaboration in Establishing a Learning Organization

One of the primary goals for leaders in this school district is focusing on becoming a learning organization. The superintendent has indicated one of the pieces of developing a learning organization is creating a strong “network” of communications. The superintendent further supports the importance of professional dialogue in developing a learning organization, “Professional dialogue is the primary avenue to quality learning...each staff member has gifts and knowledge to share that further enables staff to continuously reflect on what they have learned and how to improve” (Superintendent, interview, September 14, 2007). When asked if and how technology is used for communications and professional dialogue in the district, the superintendent and building administrators indicated that technology is used frequently, but that personal (face to face) communication is still the primary [form of communication] within the superintendent’s cabinet.

Leadership’s Use of Technology for Communications and Dialogue

Building administrators and central office staff use the portal frequently and use it especially to broadcast organizational changes to the district. PVSIntranet is also used for collaborative book studies in which select people [in the study group] can dialogue and reflect upon leadership topics in books such as *The World is Flat* and *Leadership on the Line* (Superintendent, Interview, September 14, 2007). This particular study group is limited to the members of the superintendent’s cabinet. However, study groups are not intended to be limited to leaders, but can be used to create dialogue opportunities throughout the school district. For example, one study group may include staff in a particular building, another study group may include all teachers who teach special education across the district, and yet another study group may include all secondary principals. The portal allows an additional method of dialogue through

the book study/discussion groups; the groups can be created through a request sent to the technology department.

The superintendent indicated that although technology is not his primary means of communicating with his staff and with all staff district-wide, he appreciates the history of questions maintained on the portal since its inception; this feature allows administration to see if any "...patterns of concerns or broader issues that need to be addressed" arise (Superintendent, Interview, September 14, 2007). The superintendent also indicated "...it appears staff use it constantly. We can keep it updated on lawsuits, board members that are leaving...it helps you be in charge of "your message" and how it is presented" (Superintendent, Interview, September 14, 2007). The portal also helps to address "rumors" through an anonymous posting area called "the grapevine". However, the superintendent indicated one of the most recent concerns on the grapevine—was there going to be a reduction in fine arts staff due to increases in core graduation requirements—was immediately addressed by the communications coordinator, along with central office staff, who responded immediately to this concern through dialogue created using PVSIntranet. The superintendent indicated that using technology for communications could be a concern. Because electronic communication is so fast, and is distributed very rapidly, it also can be quickly distributed to and misquoted by the media (Superintendent, Interview, September 14, 2007).

The communication coordinator's position in this district centers on building communication both within the district and with outside constituents (Communications Coordinator, Interview, September 17, 2007). The communications coordinator uses technology to "quickly and efficiently distribute critical information to administration, faculty, and staff" within the district on a daily basis (Communications Coordinator, Interview, September 17,

2007). Specifically, PVSIntranet is updated daily with key news, and responses to questions from the grapevine are a "...top priority...the appropriate administrators and/or central office staff feel that timely responses make our staff feel they are informed and that their administration wants to be up-front with information dialogue and supports them" (Communications Coordinator Interview, September 17, 2007). "Particularly in a school district, face to face communications are important, but because you have such a large group, communication through the PVSIntranet is much more efficient and detailed" (Communications Coordinator, Interview, September 17, 2007). In her opinion, downsides to using technology for communications include Sunshine Law limitations on written materials between board members and administration, requiring face-to-face communications, and conditions supporting media/public exposure.

In addition, the communications coordinator believed that dialogue and collaboration are "tremendously enhanced through the use of the portal and with the discussion groups, book studies, and Blackboard opportunities within the portal" (Communications Coordinator, Interview, September 17, 2007). A crisis communications discussion group also exists for school administrators only on the portal (PVSIntranet).

Building-level Perspectives on Use of Technology for Communication and Dialogue

Four building administrators from three different levels (high school, middle/junior high school, and elementary) were interviewed with the same set of interview questions (Appendix B). All four building administrators indicated that even though technology was not the primary method they used to communicate with their building staffs, technology was a method they used multiple times a day, through a combination of email, discussion forums, and collaboration. All four building administrators indicated they believe their staffs use technology to collaborate with peers on topics of interest. One principal gathered information from faculty before this interview,

“...our staff would love to know what other schools are doing and what others in their departments are doing...an idea forum for strategies, activities, things that work, trends, etc. would be great... the PVSIntranet would be a perfect way to bring teacher collaboration to a new level.”

Principal Perspectives on Communication From District Leadership to Teachers

However, two of the building administrators indicated a “...disconnect between what happens at central office and what is finally relayed/communicated to staff in the buildings” (Principal interviews, September, 2007). Communication is perceived to be given on an “as needed to know” basis, rather than perpetuating an environment of open dialogue and value for staff opinions and input. Following are some of the teacher’s comments [to their principals] which reinforce this concern. PVSIntranet allows the district “...to post pertinent information and surveys [on the portal] have allowed the staff to at least feel like their opinions are being heard, but sometimes it is hard to ask questions when the information is shared in the form of technology” (Principal interviews, September, 2007). In addition, all principals indicated there is still somewhat of a distrust of central office administration that information is being “filtered” before presented to district stakeholders, “...we need more direct answers...not spin...more openness on subjects. Often the questions asked on grapevine aren’t answered or are not answered fully. They are frequently an answer that isn’t to the question.” (Principal interviews, September, 2007). Another staff member commented, “If there were some way you could communicate your concerns regarding administration’s policies, etc. in an anonymous fashion, many more teachers would do so. As it is now, I will never use the “grapevine” available on PVSIntranet for fear of retribution for speaking my mind in a professional manner” (Principal interviews, September, 2007).

Secondary administrators seemed to stress that the superintendent emphasized open communications were important, but a disconnect seemed to exist between the superintendent's message [to administrators] and the message delivered to the teachers. For example, one of the principals told stories of one faculty meeting in particular where teachers were expressing their concerns of "no one listening." Some of the comments from teachers were, "...listening is essential to building relationships because it shows respect and valuing of someone's perspectives; how are we expected to work toward common goals if our opinions are not valued enough to be truly heard and brought into decision-making processes?" (Principal interviews, September, 2007) This principal further indicated trying to develop a sense of trust within the building through establishing discussion forums using both technology and face-to-face meetings on topics of concern within the school. He evidenced a belief that until trust is achieved both between teachers and between teachers and him, collaboration and dialogue will be limited, and he emphasized, "...trust is essential to achieve goals, especially in an environment where uncertainties and discord are present." (Principal interviews, September, 2007)

I gained the most insight into whether communication and dialogue are happening at an organizational learning level when the principals were asked what tools or methods they felt were most effective to create dialogue among and between administrators and teachers and if these tools are currently being used by leadership at all levels. One of the secondary principals indicated that face-to-face communications and dialogue were imperative for building relationships and developing leadership qualities within the staff. When asked to expound on developing leadership within the staff, he provided the following explanation, "...I view leadership as a process of constant questioning, inquiring, and challenging what is currently happening [in the school setting] so that improvement can be made—respecting the right of

colleagues to challenge the way things are is part of the process.” (Principal interviews, September, 2007) This principal felt that a tremendous improvement had occurred in his staff, but believes that the teachers feel the “borders of safety” are within the building only—they feel their input is not desired and cannot be safely expressed (without consequence) at the district level.

Meeting Notes and Written Documentation

To better inform this study and to provide a broader range of information, I reviewed several documents, some of which had been created from within the district while others were additional written communications (emails, minutes, memos). Communication plans for the past two years created by the district were reviewed. The communication plans outlined past, present and future goals for enhancing communication within the District. Intra-district letters, memos, board meeting minutes, and emails were reviewed, as well as media releases from the local newspaper regarding communications issues from within and outside of the district.

While analyzing meeting notes I developed from several administrative and administrative/teacher meetings, I identified a consistent platform coming from the superintendent—an emphasis on open dialogue being critical to the success of the organization and the foundation for creating an “...organization that encourages everyone to learn and grow.” Another platform seemed to be creating a unified district, working toward the same vision and purpose. The superintendent’s message was loud and clear, “...in order to reach greater heights and to constantly strive to meet our three district goals [consisting of] closing the achievement gap, increasing student achievement, and maximizing resources, we must continue to focus on *acting as a school system, not a system of schools.*” (Meeting Notes, June, 2006)

Themes

Two district themes seemed to especially emerge from this study, 1) A lack of trust exists between administration and teachers in the district and 2) Despite interest in the portal, a desire for face-to-face collaboration and dialogue opportunities to develop professionally and personally is a top priority for staff. Another building theme, building leadership capacity among staff, emerged from the secondary schools; this theme may be present in other buildings (in perhaps the elementary and middle-level buildings) if further investigated.

Trust

This theme emerged multiple times throughout this study, even after the second intervention. Teachers feel that district leaders, particularly central office administration, are not sharing critical information with them. When staff were asked how they felt additional communications and dialogue could be increased through the use of technology, some of the comments were, "...leaders could share more information, more direct answers with more openness and transparency", "...dialogue and communication are all "top down"; many things happen behind closed doors and it is hard to feel involved when this happens", "...we often get information after the fact" (Survey, May, 2007). Another comment from a teacher indicates that while he/she wants to be heard, she is concerned with the outcome, "I think continuing the use of the intranet and having staff feel more comfortable with using it and being able to have dialogue without ramifications will increase communications. It may take some time, but it's a start" (Survey, May, 2007). Some building administrators also indicate that trust is an issue and that central office is removed from what is going on in the buildings and makes decisions without asking for input (Principal interviews, May, 2007).

Developing trust is the foundation for a cohesive team and is part of building the capacity of team members to think together and encompass the feeling of being part of a shared vision and purpose, all of which are components for organizational learning. The superintendent indicated staff input is valued, "...each staff member has gifts and knowledge...that [when shared] allows us to reflect upon what is learned." (Superintendent interview, September 14, 2007). Although the superintendent values input from staff, indications suggest this message is not fully coming across to district stakeholders. Staff do not feel their input is desired or invited by the administration for use in the decision making process, particularly in matters of policy (Survey, May, 2007). I was disappointed that the return rate (below 20%) was not higher on this survey, but I was told that this return rate is typical of online surveys taken within the district. Upon reflecting, this return rate (or may not) be yet another indicator of distrust coming from the staff, in not trusting that the survey is truly anonymous or that repercussions may occur to those who speak out.

Collaboration and Dialogue

Another theme that came across in the data very clearly is the desire for additional staff collaboration and dialogue with people in other buildings through the use of technology and otherwise. Staff indicate they are currently collaborating especially in areas of curriculum and use technology to collaborate in this area through the use of a shared "curriculum" drive on the computer network. Dialogue and reflection on professional practices seemed to be recounted several times as part of discussion forums (both with and without the use of technology to reinforce) and book studies. Some of the comments were, "I am able to quickly collaborate and share ideas through discussion forums on the portal, the "v" [curriculum] drive, and email." "...through curriculum tracker and through the grapevine, more thoughts are shared and

discussed in an open forum than in the past”, “...can communicate easier and more efficiently than in the past, but I’m not sure it is reflective communication—more reflective communication is achieved through discussion forums and book studies on PVSIntranet.” (Survey, May, 2007)

Based on the following comments, staff indicate they need and want to feel they are important and that their input is desired and valued. They want to feel they are part of a team and a larger purpose. Some of the staff comments were, “Dialogue increases as a consequence of people seeking information and believing that their feedback is important and meaningful”, “...it would be nice to collaborate with cohorts in other buildings...what are the concerns and questions about certain grade levels. What are the changing research trends and how is it impacting our district?”, “...I would love to know more about what other schools are doing and what others in my department are doing...sometimes we feel so isolated.” “...collaboration and open dialogue are lacking in this district...we need opportunities for face-to-face dialogue, not only with staff members, but with honest dialogue with administration.” (Survey, May, 2007).

The superintendent feels that professional dialogue is the primary avenue to quality learning when he says, “...dialogue, interaction, and communications equal quality school improvement” (Superintendent interview, September 14, 2007). The superintendent wants to incorporate staff into productive dialogue when he states, “I am always looking for ways to create a systems approach and dialogue with staff...when we operate as a team, there is synergy and torque to make it happen” (Superintendent interview, September 14, 2007). The superintendent indicated he engages in face-to-face dialogue consistently with his staff and that he uses book studies on PVSIntranet to enhance their face-to-face discussions.

Building Capacity

A school theme that appears in its beginning stages is one of cultivating capacity among staff. The secondary principals in multiple schools indicate they have created teams [of teachers and in-building administrators] within their schools to "...create conditions for collaboration and work with people for mutual benefit...teaching is relational because the interactions during conversations draw on insights and understandings between [people] about the nature of the work." (Principal interview, September, 2007) They further elaborated, "...we need to develop the capacity of our staff to listen, share, and nurture common beliefs and values—values we share as a school and values that will contribute to the district." The principals believe discussion forums (some using PVSIntranet and some not) and book studies are critical to keeping staff engaged in meaningful dialogue.

The superintendent also uses discussion forums and book studies with central office staff to engage them in leadership dialogue. By some principals beginning the practice of discussion forums among their building staffs, this may (or may not) be an indicator that, although dialogue contributing to organizational learning does not appear to be at *all* levels district-wide, pockets of effective dialogue and collaboration are appearing at multiple levels.

Reflections

Reflections on the Quality and Validity of Action Research

As mentioned previously, part of the action research process is a reflection cycle, which occurs simultaneously while the entire action research project is taking place. One of the advantages of action research is that it is very practical and has a primary focus on resolving real-world problems and bringing about change to resolve the issues at hand. Participatory action research emerges and evolves through engagement between the researcher and organizational participants. One of the tests of a good action research project is to evaluate whether all

participants have an opportunity to be fully involved and part of the planning (Reason & Bradbury, 2001). This action research project used a variety of methods (surveys, interviews, documentation, etc.) to offer the opportunity for all stakeholders to be involved and to ensure their input was part of the planning in the action research cycle. Stakeholders included teachers, administrators, principals, and the technology team. Teachers, administrators, and principals were asked for input on their use of technology for communication and dialogue. The technology team participated by giving their input on how best to accomplish the requested tasks through use of PVSIntranet and to bring these tasks to fruition in a timely manner.

Reason and Bradbury (2001) indicate that people will get energized and empowered by being involved in a quality action research project and "...develop newly useful, reflexive insights as a result of a growing critical consciousness" (p. 448). I believe this action research project stimulated reflexive insights especially from building principals when they evaluated whether or not their staffs are truly collaborating or are just communicating on a surface-level. In addition, this action research project stimulated the principals to reflect on trust and teamwork in their staffs as well as on a district level.

Special care was taken to ensure anonymity of especially less powerful people in this study so that participation could be maximized. Methods of inquiry changed and fluctuated over time to suit the evolving needs of the District. For example, instead of asking questions and being one of the leaders for changing PVSIntranet, I observed interactions in the group, took notes and journaled changes taking place not only on a surface level with the task at hand, but also within the dynamics of the group. New roles and understandings were emerging as discussions of communication concerns between teachers and administration rose as top priority. The focus quickly shifted from how this is a "cool technology tool" to how can technology be

better utilized to facilitate dialogue and to listen to concerns in the schools. However, even as methods changed, care was taken to ensure consistent procedures and integrity during the inquiry process.

Reason and Bradbury (2001) emphasize thinking through the developmental quality of our work from initial conception through the future; a good action research project emerges and evolves and is never stagnant. As the cycles in this project progressed from Cycle I to Cycle II (and will continue into future cycles), deeper meanings and more issues rose to the surface—communication and dialogue, whether through the portal or through another method, is a primary concern throughout the District. As more people were engaged, the project and purpose evolved and formed into something deeper than simply evaluating the effects of technology enhancing communications and dialogue. Communication issues, the need for deeper dialogue, and a cultivation of trust is discussed in more detail in themes identified later in this section.

Another test of a good action research project involves asking whether the work was positioned in such a way that participation would occur even if the researcher were not driving it (Reason and Bradbury, 2001). By starting this study as an inside researcher and ending as an outside researcher, I can see that this project would have continued (and will continue) regardless of my presence. Reason and Bradbury (2001) refer to this continuance as “a living interest in the work” (p. 449). As action research is focused on organizational change and transformation, continuations of cycles perpetuate systematic change through time. Reason and Bradbury (2001) suggest action research brings about the logic of continuous change and transformation of behaviors. This action research project started behavioral changes and stimulated reflections of some leaders on not only using/evaluating pieces of technology for communications but also in building relationships with their teachers and thus setting the groundwork for treating each other

with trust, dignity, and respect. Such groundwork changes behaviors and values and sets the stage for organizational learning.

In addition, results of this study will not only impact the Pleasant Valley School district for which this in-depth analysis has been conducted but will also likely be of significance for other districts seeking to use technology to enhance dialogue between faculty. As evident in the Pleasant Valley School district, technology can also be used as an additional means to encourage candid communication/dialogue between faculty and administration. I see my own professional practices evolving in relation to my worksite through lessons learned from this action research project and would hope this study assists other as well.

Reflections on Leadership's Approach Toward Using Technology to Enhance Dialogue

From a lens grounded in concepts of organizational learning and data analysis, the current leadership approach toward using technology to enhance communications and dialogue appears to be limited by the lack of trust between administration and teachers. Although the superintendent suggests professional dialogue, sharing, and teamwork are critical to a learning organization, the data from interviews and the survey do not support organizational learning across the district. However, the data suggest that certain building leaders (secondary schools) and groups of teachers are making strides toward cultivating a climate conducive to open dialogue and are, as a result, using technology resources to enhance this dialogue. The data would indicate staffs in these schools are using forums and discussion groups to build capacity to listen, speak, and build trust amongst the staff and between their principal and staff.

The data indicate a strong *desire* of leadership to enhance communication and dialogue with all district constituents. Leadership desires to bring communication to a new level with opportunities for discussion forums, book studies and other forms of dialogue. District leaders,

from the superintendent through building administrators appeared to be striving to improve communications and dialogue at all levels. However, at this point, staff are not feeling that open and honest communications are the norm with upper administration. Until this feeling is addressed and resolved, open dialogue will be limited, thereby inhibiting development of district-wide organizational learning.

I can use these data to better inform my practices in my current district. As executive director of technology, part of my responsibility is to recommend technology solutions to support staff, students, and parents. We are always looking for ways to improve dialogue, sharing, and teamwork amongst and between staff and administration. This school year, a primary focus has been placed on building and sustaining teams within our organization; this data will be timely and appropriate. In addition, our department will be releasing a portal to be used first by staff, and later by students and parents. Drawing from the Pleasant Valley Schools data, from the start, I know to begin (rather than adding these capabilities at a later date) the portal with discussion forums, book studies, and other opportunities to entice staff to use it for dialogue and collaboration. In addition, I will have the opportunity to draw from this study and share the data with our district leaders to enhance their leadership abilities and begin to analyze our staff needs for open and honest communications and determine how we can better meet those needs, both through the use of technology (perhaps a “grapevine”) and through face-to-face communications.

Discussions, Implications, and Reflections

Discussion

Using two cycles of an action research method, this study examined whether using technology to increase communication/dialogue contributes to organizational learning in a school district. The following questions guided this research:

1. To what extent, if at all, does the drive toward improving professional dialogue contribute to organizational learning and a knowledge-centered culture?
2. To what extent, if at all, is the current leadership approach toward the use of technology effective in improving communication and professional dialogue?

Question One: To what extent, if at all, does the drive toward improving professional dialogue contribute to organizational learning and a knowledge-centered culture?

My study found that professional dialogue is one of the components contributing to organizational learning. Using technology to promote communications and dialogue in a school district appears to assist in increasing communication, but beliefs indicate that use of technology should not be the primary means of providing opportunities for dialogue and communication between staff and between administration and staff. Data gathered from staff (through the survey) indicated they feel dialogue and “open communications” are critical to their performance in their buildings as well as the organization as a whole. Additionally, interviews with the secondary school principals supported this framework—not only did they feel dialogue and collaboration are critical, but they also felt (and are engaging in) focused dialogue within school-building teams and focus/discussion groups are critical components of their school culture. The principals indicate that building teams and focus/discussion enhances dialogue, builds trust, and

builds staff capacity resulting in a cohesive, value-driven staff. Dialogue seems to be one of the pillars in moving this district toward organizational learning.

Going back to the literature, Senge (1990) contends that as leaders plan and changes occur, additional opportunities for communications and dialogue [contributing to organizational learning] arise. The author would also say that team learning starts with dialogue, allowing the group to discover insights not attainable individually, and also involves learning how to recognize the patterns of interaction in teams that undermine learning. Senge further emphasizes that when dialogue is joined with systems thinking, a higher level of learning occurs—one in which the team deals with complex issues and can focus on deep seated structural issues rather than questions of personality and leadership style. Giles and Hargreaves (2005) emphasize that systems thinking, improved dialogue, deep learning, and better communication are components of a learning organization. The authors indicate that these components help “...everyone to see the big picture of the school and be more aware of the likely consequences of their own preferences and actions on the whole school community” (p. 141). Rusch (2005) also identifies dialogue as a key feature of organizational learning. The author refers to dialogue as organized talk—talk that involves collective interaction, intense communication, reflective dialogue, persistent inquiry, and reflective thinking.

Leithwood, Jantzi, and Steinbach (1998) contend that culture has the most dominant influence on organizational learning. However, the authors would support the view that one of the primary factors in stimulating organizational learning is a “collaborative and collegial” school culture. The authors would argue that this collaborative school culture could not be achieved without effective internal communication and dialogue. Mitchell and Sackney (1998) contend that organizational learning blooms with a school culture that encourages collaboration,

dialogue, and diversity. Janz and Prasarnphanich (2003) would also agree that organizational culture is one of the most significant inputs to effective knowledge management and organizational learning and that dialogue and collegiality are conducive to developing the organizational culture.

To better understand the findings, it is necessary to draw upon the literature and elaborate on the themes emerging from this study. Literature previously identified supports both capacity building and collaboration/dialogue in relation to creating a culture conducive to organizational learning. However, because trust emerged as a theme in the midst of this study, literature on organizational trust was not included in the original review, so it is essential to review literature on trust in school districts as part of this section.

There is a significant amount of literature available on building trust in schools. Specifically, studies have focused on teacher-principal and teacher-teacher trust in relation to school improvement and student learning. Bryk and Schneider (2002) indicate a connection between level of trust in a school and student learning, but clarify that trust in and of itself does not directly affect student learning. The authors find that “trust fosters a set of organizational conditions, some structural and others social-psychological, that make it more conducive for individuals to initiate and sustain the kinds of activities necessary to affect productivity improvements” (p. 116). Bryk and Schneider (2002) contend that trust alone does not guarantee organizational success, but schools with little or no trust show almost no improvement. Also, trust among educators lowers vulnerability and increases the likelihood that teachers will take risks and engage in tasks associated with reform and organizational change. In addition, the authors say trust “...facilitates public problem-solving within an organization and sustains an

ethical imperative...to advance the best interests of children” (p. 34). Thus, trust cultivates a desire for school improvement and organizational learning/change.

Building trust between educators is no easy task. Hoy and Tschannen-Moran (1998) identify common barriers to developing and maintaining trust between teachers, principals, and leaders. Among the barriers identified, perceived top-down decision-making, ineffective communication, lack of follow-through, and teacher isolation are most common. Tschannen-Moran (2001) suggests that trust and collaboration opportunities are intertwined. The author contends that the more parties collaborate, the more likely they are to get to know one another and build trust. Also, the greater the trust between teachers and their leaders, the more likely it is that true collaboration will occur (Tschannen-Moran, 2001). Tschannen-Moran (2001) identifies leader practices of shared decision-making and decentralization as being part of a collaboration framework.

All authors (Bryk & Schneider, 2002; Hoy & Tschannen-Moran, 1998; Tschannen-Moran, 2001) suggest that school environments exhibiting collaboration, collegiality, and supportive structures cultivate a trust throughout the school organization. Collaborative processes in schools bring various stakeholders together for problem solving and shared decision-making. Tschannen-Moran (2001) contends that school structure and climate are significant factors in creating collaborative processes and that leaders can assist in perpetuating this supportive structure. Some suggestions to leaders for laying a foundation of trust include demonstrating personal integrity, encouraging open communication by actively making themselves available, involving staff in decision making, and facilitating and modeling effective communication (Bryk & Schneider, 2002). The authors say that principals and leaders build trust from members of the school community by encouraging open communications and actively

making themselves available to teachers, students, and parents. Also, trust can be reinforced by facilitating authentic participation by asking for input and following through on the input given and corresponding result. Bryk and Schneider (2002) emphasize that leaders and principals can model effective communication by listening to what others have to say and assuring staff that their input is valued.

After studying the literature on trust in school organizations, the distrust of teachers toward leadership is not unique to this district. The leaders in this district are following several of the suggestions offered by Bryk and Schneider (2002). Specifically, the superintendent is intent upon making himself available to teachers, administrators, and the public through open public forums and sections on the portal such as the grapevine and discussion forums. In addition, building principals are encouraging open communications through in-building discussion forums. This district is striving to create a system of open and fluid communications using technology as well as traditional means. Bryk and Schneider (2002) would support district efforts in creating such a system. The authors indicate that trust is built and experienced within the context of a multifaceted communication system. If open communications and dialogue are desired in an organization, there should be multiple ways and multiple opportunities for communicating. Opportunities for communication in this district are evident through the portal as well as discussion forums in the secondary schools.

According to the research studied, creating a collaborative environment builds a strong foundation for establishing trust. This district is working on building collaborative environments in some of their (secondary) buildings, evidenced by the discussion forums, book studies, and opportunities for open dialogue between faculty and building administrators. One would hope the opportunities for collaboration and dialogue will continue to expand throughout all buildings

and extend to a district level. Tschannen-Moran (2001) would support that these collaborative opportunities should assist in building trust-- a step toward organizational learning.

Question Two: To what extent, if at all, is the current leadership approach toward the use of technology effective in improving communication and professional dialogue?

The current leadership (superintendent's) approach toward using technology enhances the communication process and encourages professional dialogue in this school district. The superintendent contends that professional dialogue, sharing, and teamwork are critical to a learning organization. The data from this study reveal pockets of teachers engaging in dialogue and collaboration and based on comments made by the secondary school principals, describes building staff forming teams and building opportunities for dialogue and collaboration on topics of concern and importance in addition to book studies and discussion forums. Additionally, the superintendent indicated her [central office] staff has opportunities for and engages in dialogue through discussion forums and book studies on leadership. At this point, the data do not support dialogue across the entire district at all levels but rather supports the *desire* on all levels for improved, deep dialogue. Comments from teachers, building principals, the communications coordinator, and the superintendent indicate a true desire for improved dialogue and discussion between staff and especially between staff and administration—open dialogue that will build trust, shared values, and beliefs that will provide one pillar of the foundation for organizational learning. The common thread—improving dialogue and discussion—appears to exist at all levels. Although perspectives vary somewhat, leaders are all on the same page, desiring to move the same direction.

Capacity building among staff may be another key to stimulating organizational learning. The data in this study from the high school principals indicate that capacity building is a focus

within their buildings. Capacity building in these school buildings incorporates open dialogue, trust, and teamwork amongst staff and building administration. Datnow (2005) identifies dialogue and open communications as factors supporting cultural and capacity building within an organization to positively affect organizational culture and facilitate organizational learning and change. The author asserts that a school's own capacity for change influences successful implementation of reform. A district's institutional capacity or organizational "cultural capital" accommodates changes and positively affects what might otherwise be a negative situation. The author also indicates that high capacity schools did not experience as many conflicts [as lower capacity schools] when faced with significant organizational changes or demands. Finally, Datnow indicates that strong leadership with the school seems to support an efficacious attitude when facing multiple demands.

At the current time, many of the staff in Pleasant Valley School district do not appear to feel they are a part of the team nor do they believe their input is invited. Lack of trust between administration and staff members is an issue, along with staff members fear of repercussions if they provide an opinion. Building human relationships is crucial to providing a positive, collaborative working and learning environment. Characteristics such as an atmosphere of trust, interdependence, mutual accountability, common purpose, and open communications are key components for building positive relationships within an organization (Katzenbach & Smith, 1993; Bolman & Deal, 1997). Katzenbach and Smith (1993) further identify these characteristics as the foundation for building high performing teams. These authors would assert that before organizational learning can fully occur in this district, feelings of distrust between administration and staff must be addressed and corrected, promoting open and honest communications between all stakeholders.

Many authors who write about leadership contend that one of the primary responsibilities of a leader is to build a shared vision among members of the organization; further, it is the leader (the superintendent) that pulls together the assumptions, beliefs, and values that are shared by groups and members of the organization (Yukl, 2002). In a learning organization, Senge (1990) would contend that leaders have three roles, designers, stewards, and teachers. As a designer, the leader pulls together the organization's policies, strategies, and systems. The leader's role is to design the organizational learning process so that people throughout the organization can deal with the critical issues they face (Senge, 1990). In the role of leader as steward, the leader becomes a steward of the vision and sees the vision as part of something larger, allowing others to be involved. Part of such stewardship is building an atmosphere of trust (Senge, 1990). The role of the leader as teacher involves the leader helping people achieve more accurate and more empowering views of reality, fostering learning for everyone.

One of the issues with Pleasant Valley Schools is a feeling by staff that their opinions and ideas do not matter and that they are not asked for input or to be involved in the decision-making process. Nonaka and Takeuchi (1995) and Morgan (1998) suggest various methods for implementing positive change in organizations in order to create an atmosphere conducive to learning. These methods include incorporating staff into the decision-making process. Katzenbach and Smith (1993) remind us that as change takes place in relationships, organizational members must recognize the contributions they can make as well as appreciate the contributions of their colleagues. Grogan (2003) concurs with this leadership approach and reminds us that individuals think and perceive situations differently. Leaders should involve all stakeholders in the decision-making process. Bryk and Schneider (2002) contend that trust among educators lowers vulnerability and increases the likelihood that teachers will take risks

and engage in tasks associated with reform and organizational change. In addition, the authors say trust "...facilitates public problem-solving within an organization and sustains an ethical imperative...to advance the best interests of children" (p. 34). Thus, trust cultivates a desire for school improvement and organizational learning/change.

In school organizations, the superintendent becomes the agent of change (Grogan, 2003) inducing collective agreement between organizational members and supporting them in their efforts. The author emphasizes that leaders can make a huge impact by decentralizing authority (supporting and guiding others experiencing change), being sensitive to local contexts, and promoting collaboration in the community and among staff. Although the future must bring changes, with the changes come opportunities for organizational learning. The leader must adapt his/her methods of leadership to fit the local context and relationships needed in the community and organization (Grogan, 2003). In the Pleasant Valley School District, the staff appears to perceive that authority in the district is centralized [rather than decentralized] at this point. Grogan (2003) and Senge (1999) would argue that before true organizational learning can occur, walls must be brought down. Although the superintendent is sensitive to local contexts and promotes collaboration and dialogue, his staff must do the same so that the "shared vision" permeates throughout the District. Leaders bring shared vision and belief to reality and provide the stability that holds the organization together when facing challenges and organizational change. As mentioned previously, the issue of trust between staff and administrators is not unique to this school district, but is an on-going concern in many districts. Building trust, collegiality, and a collaborative environment is an iterative process of encouraging open communications; a process in which the leaders make themselves available to teachers, students, and parents (Bryk & Schneider, 2002). If significant leadership changes occur in this district, so

may the focus change on what is important to organizational success, such is the nature of organizational change.

Implications

This action research study has implications for practitioners, teachers, administrators, and administrator preparatory programs. Typically, practitioners are researchers inside the organization. I began this study as a practitioner [inside the Pleasant Valley School District] and concluded the project as an outsider, collaborating with people inside the Pleasant Valley School district. The first cycle of this action research project was completed while I was inside the district; the second cycle was completed as an outside researcher. Changing positions further enriched the study, providing different perspectives than would otherwise have been possible. I will elaborate further and more specifically on these perspectives in the final reflection section below.

This study has implications for teachers from multiple perspectives. One perspective is that teachers inside the Pleasant Valley School District can use the results of this study to see that they are not alone in desiring a more open and communicative culture in their school district. The message from the data came across loud and clear—teachers expect more open, honest communication from administration, and in return, will begin developing a relationship with administration built on trust. In turn, such a relationship is the foundation for becoming a learning organization. The results of the study also indicated that teachers desire to use technology for collaborating between same grade levels, departments, curriculum, book studies, and on forums. All of these forms of communication indicate a more reflective, higher level of interaction with colleagues. Also, another perspective that emerged from the study is a consistent

need for face-to-face communication and the need for teachers to feel that they are part of the decision making process and that their opinions and input are valued.

Administrators in the Pleasant Valley School District can benefit from this study through an increased awareness of how they are perceived by their staff. I would hope that administrators would gain a respect for teachers wanting to be heard and wanting to be part of the process without fear of repercussion for professionally giving their input. I would also hope that administrators seek more open, honest methods of communication and dialogue with their staff, whether this dialogue is partially achieved through use of technology for anonymity, forums, and discussion groups or whether the dialogue occurs through face-to-face communications. The setting will determine the appropriate method of dialogue. Administrators from other school districts can use this study as a communication/dialogue model to plan their techniques for improving communications within their districts and schools. Although this study began as a means of evaluating whether or not pieces of technology could enhance communications and dialogue as well as a movement toward organizational learning, the resulting input from staff and administrators extended far beyond the initial expectations. Administrators in other districts can use this action research study as an example of looking beneath the obvious in their districts. Action research is designed to solve problems; however, as you immerse yourself into the process, deeper issues tend to emerge.

This research study also has implications for teacher (and leadership/administrator) preparatory programs. Results from this study can be used to emphasize the importance of building trustworthy, collegial relationships between administrators and faculty. Results from this study indicate that teachers desired to be heard, to be part of a team, and to be part of the decision-making process. Whether or not an administrator is using technology or some other

form of communication and dialogue to achieve open and honest communications, an atmosphere of trust, interdependence, mutual accountability, common purpose, and open communications are key components for building positive relationships within an organization. If these characteristics are the foundation for school organizations, organizational learning is well on the path to achievement.

Further Research

If I were acting in a consulting capacity to Pleasant Valley Schools and were to conduct a third cycle in this action research project, I would envision it to look similar to the following:

Cycle III

Diagnosing. As in previous cycles, much of the diagnosing and planning takes places in the evaluation and reviewing stage of Cycle II. The 2007-2008 district communications plan, results from the May, 2007 survey, and interviews with the superintendent, communications coordinator, and district administrators will provide the foundation for cycle 3 changes and improvements. Data from the surveys and from interviews indicate a significant amount of groundwork needs to be laid with collaboration and dialogue as the foundation for establishing trust, teamwork, and the feeling of a mutual partnership and respect between administration and teachers. Specifically, data from the interviews should be further investigated to create deeper collaboration opportunities (beyond discussing curriculum) that delve into the real communication issues, and yet create a zone where teachers feel safe (and valued) giving their input. The technology team should be involved through identifying further ways the portal can be used for collaboration and discussion forums that can be a resource for teachers and administrators.

Planning. I believe the planning stage of cycle three should look a little different from the previous two cycles. Now that some of the deeper issues have surfaced, more people should be involved in the planning process. Specifically, teachers and principals should be asked to volunteer to be on the committee planning the next release of the portal. By doing so, I believe staff would feel their input is “better heard” than receiving feedback from a survey. Also, outside of the technology perspective, other principal leaders could investigate following the high school pattern (teams, intra-building discussion forums/committees, etc.) that seems to be in its infancy, but is building an excitement among the high school staff presently using it since the beginning of 2007.

Taking action. Parts of the portal could be improved and perhaps a “Focus on Dialogue” section could be launched. This section could include extensive “district-wide” discussion forums as well as school-level or cross-collaboration forums (elementary forums, junior-high/middle school forums, high school forums) dedicated to discussing items relevant to specific grade levels or departments. Perhaps a dialogue section would help address some of the collaboration and dialogue requests of staff identified in the Cycle II data. The grapevine section of the portal appears to be effectively being used to address rumors and other immediate concerns of district constituents, so I would not eliminate it. However, I would stress the anonymity of it to all portal users, as this issue still is a concern among staff.

Evaluating/reviewing. I would survey staff, focusing in on open-ended questions regarding dialogue. Instead of asking which technology tools were used for collaboration and dialogue, I would ask more open-ended questions such as: Describe and give examples of meaningful dialogue you have experienced with colleagues and administrators. What methods

did you use for dialogue and collaboration? Were these methods effective—why or why not? How can the district assist you in having more opportunities for dialogue?

I would suggest interviews with more administrators to get a larger, more global, whole district perspective and to ensure that we weren't just hearing part of the story. I would also suggest interviews with teachers who felt comfortable coming forward. I feel the data I gathered from interviews in Cycle II were richer and brought additional insights and reflections that would not have otherwise emerged.

Based on the findings, I have identified several implications for further research. This research project provided an in-depth study in one school district of how (or does) the uses of technology increase communications and dialogue thereby contributing to organizational learning. Comparing two different school districts whose members feel they are using the same tools (or perhaps different technological tools) working toward organizational learning using the same parameters might also be of interest. Also, perhaps a replication of this study on a state-wide basis through the use of a survey (online or written) could be conducted--how is technology incorporated into creating dialogue and communications on a higher level in your school district? Furthermore, one of the unforeseen themes stemming from the data was distrust between faculty and administration, distrust that prohibited complete organizational learning from taking place. How can leaders build trust between central office administration and all constituents? Can pieces of technology contribute to anonymity and thus further this process?

The purpose of this further research would be to provide a rich repertoire of leadership processes and uses of technology as a vehicle to move staff in a direction and to promote dialogue and collaboration (rather than just using technology to be using technology) for different districts in different contexts. Additionally, during the course of interviews for this

research, many administrators recounted stories from their own experiences and the experiences of their faculty. I believe research that incorporates the stories of district leaders in their quest for developing organizational learning would be beneficial to educators' at all institutional levels.

Final Reflection

Although I chose to do an action research dissertation, Herr and Anderson (2005) point out that an action research dissertation is not for everyone, particularly for individuals who have a low tolerance for ambiguity and messiness. For my purposes, however, action research was the best method. Action research allowed me the flexibility to work with my participants in close proximity and to solve current, real-world issues and make recommendations for continued improvement. Action research also allowed me to apply my practical experience yet wear the "hat" of a researcher when required. As a researcher, action research allowed me to understand and initiate change within the context of this district, and even though some pieces were not as "successful" as one would like, the action research has the advantage of continuing to improve the process. I know this district will continue in its efforts to further enhance dialogue and communications using technology, and, perhaps through results coming from this study, will focus on enhancing dialogue and communications outside of using technology.

Action research is a continuous process, and through this continuous process a significant amount of "give and take" must occur. Coghlan and Brannick (2001) diagram the action research process in separate circles; each circle represents a new cycle. Even though one cycle leads into the other, the cycles are separate. I would contend that action research is better represented as a continuous spiral spring that gives and takes as the process evolves. Just as give and take resides in daily relationships and working with the participants so that they, too, "own the project," so, too, the action research cycle grows and evolves, like a spring expanding and

contracting. This spring compares well with the knowledge-creation spiral of organizational learning developed by Nonaka and Takeuchi (1995). Nonaka and Takeuchi (1995) recognize that a process of constant reflection and renewal must take place in order for organizational learning to occur. The authors describe the process as “an expanding community of interaction which crosses intra- and inter-organizational levels and boundaries” (p. 59). Nonaka and Takeuchi’s organizational learning process is a good description of my action research process as well—a constant, iterative process that expands and contracts as needed. Through this action research project, as pieces of data were gathered they were used to plan improvements in the next cycle. Consequently, Coghlan and Brannick (2005) refer to the data gathering process in action research as data generation which contributes again to the thought of the whole action research process as a continuous “spring” that expands and contracts as needed.

Action research has often been thought of to produce local knowledge, but I would agree with Herr and Anderson (2005) and contend that it also informs the knowledge bases of our fields of study. This project contributed tremendously to my abilities to reflect on my professional practice and to my personal knowledge base and foundation as an effective leader. I would hope it would contribute to the general knowledge base in this area as well.

Insider/Outsider Role

As an inside researcher and leader in the Pleasant Valley School district, I approached using this action research project as a means of consciously and deliberately addressing the issue, how (or can) pieces of technology be used to increase communication and create opportunities for professional dialogue in our school district? Little did I know that this seemingly simple problem presented by administration would grow, evolve, and continue to attach more facets than I could imagine. I immersed myself into better understanding the problem through

participating in meetings with the superintendent and communications coordinator, as well as other central office administrators. We discussed how we felt the technology team could assist in developing/enhancing pieces of technology to improve opportunities for dialogue and become involved in the process. Beyond this process, I attended meetings, journaled, and took notes from newspaper publications, emails from teacher professional member organizations, board meetings, and other forms of written and oral communications to surround myself in better understanding of what was happening within my own organization. Once I felt I had a good understanding of the primary issue and how my team could help, I engaged my technology team (At this time I was assistant director of network operations in the Pleasant Valley School district). An important part of the action research project is how people are drawn into the processes of inquiry and action and how they participate and collaborate (Coghlan & Brannick, 2005). I began taking on the dual role of what Coghlan and Brannick (2005) would refer to as “simultaneously holding an organizational functional role which is linked to a career path and ongoing membership of the organization, and temporary research role” (p. xiii). As an insider, I was involved in practice to which this project was integral. I was in the heart of the issue—at a point where I could not only describe, understand, and explain the issue but also enact change through technology and influence and collaborate with change managers enacting other transformations at a higher level in the organization. I also realized that functioning as a researcher and as a leader in Pleasant Valley Schools needed to be balanced and approached with care. Coghlan and Brannick (2005) say that action research has subversive qualities, examines everything, stresses listening, emphasizes questioning, fosters courage, incites action, abets reflection, and endorses democratic participation. Any or all of these characteristics may threaten existing norms within an organization. As such, the authors suggest that the insider “perform”

their public role, while “backstaging” and using negotiation skills with opposition. As an insider, I had a pre-understanding of the organization’s power structures and politics that I learned to work within so that neither the project or my career were compromised.

I used Coghlan and Brannick’s (2005) writings especially to guide and help me to understand my role as an inside researcher during this time. The authors compare the inside action researcher to an actor-director engaging in their role in costume and then returning to behind the camera in order to study the take, critique it, and make decisions about proceeding to the next take. I could identify with this analogy; many times I felt like an actor especially during Cycle I and preparing for Cycle II. In retrospect, I now realize that this entire time I was constantly reflecting on the project, on interactions with my own staff in working toward making the technology meet the administrative expectations, while bridging the gap between educators (with whom and for whom we work) and my technology team. It was imperative that my technology team understand why educational organizations (teachers in particular) need opportunities for collaboration and dialogue (what they use it for, why leadership wants to find another way to make staff feel they have opportunities for expression, etc.) to establish their buy-in and ownership of this project. At this time, I felt my role as their leader was to cultivate understanding, trust, and values on what they are working for not just on this project, but understandings and values that will apply across the board. As an insider, the insightful dynamics of this project amplified reflection upon my capacity as a leader not to only react to issues at hand, but rather to better prepare my team for what may be coming up. Datnow (2005) would say that I was building the capacity of my staff to endure the ebb and flow of organizational change.

As an outside practitioner and leader of a technology in another school district, my perspective changed on this project. But my perspective also changed as a result of having a new team to work with and being able to utilize my previous experiences from Pleasant Valley Schools. I was now in more of a consulting position with Pleasant Valley Schools and was able to suggest change without being in the middle of it. With the exception of one of the principals I interviewed, all of the participants in the project were people I knew and worked with as colleagues, core project participants, and technology team members while in the district. Cycle II initial planning took place while I was in Pleasant Valley Schools; however, as the project emerged and evolved, I had changed positions. Although relationships were somewhat the same, I developed new relationships and new understandings with stakeholders. When participating and observing interactions in meetings, I was many times asked, “How does your district approach this?” This question seemed to emerge most frequently when the discussion turned to effectively using technology for communications, not so much in areas of staff dialogue and participation/non-participation in the decision-making processes. However, I noticed a sense of “freedom of expression” I hadn’t felt before in these meetings. Upon reflection, I believe this sense came from not feeling as though I had to be careful what I would or would not say, since I was now separated from the district. I also felt the opportunities to open a “new lens” and more deeply evaluate issues emerged. I began looking beyond the obvious “need for communication enhancements” to *why* communication needed to be enhanced. Through a renewed lens of types of dialogue leading to organizational learning and a second lens of leadership-to-staff interactions, I looked deeper into the issues. One of the stories in Coghlan and Brannick’s (2005) writing speaks to action research and encapsulates how I felt, “...[she] found the notion of a ‘constellation’ of change issues with a complex set of interrelationships between them

particularly helpful. Allied to the notion that it is almost impossible to change only one thing, this concept helped her to frame a change agenda...” (p. 105). Although my primary purpose was to keep our group focused on how technology, through extended use of PVSIntranet, could increase dialogue and communication, my “cycle of constant reflection” emerged simultaneously and focused on improving dialogue and leadership capacity not only in this district but also in my own district and within my own (new) technology team.

Recommendations and Personal Leadership Reflection

Through data gathered, generated, and revealed from this study, I have made recommendations (and will make final recommendations upon completion of this study) to the Pleasant Valley School district for the “next step” for not only improving dialogue through technology but also improving dialogue in general. Through the data shared especially in areas where “pockets” of organizational learning seem to be emerging through teams, focus and discussion groups that include both administrators and teachers, and capacity building, I encouraged Pleasant Valley Schools to replicate this process in other schools. Why not take a process that is already working for the secondary schools, modify it as needed, and use it in other schools throughout the district. I am also taking this foundation and applying these same ideas with my technology team. I can see my team has grown tremendously over the past year. I have started and will continue building capacity within my team. Throughout my leadership studies, and reinforcement from this action research study, I have learned that I can make no greater contribution as a leader than to build trust, shared beliefs, purpose, and values with my staff. If I am successful, my staff are prepared to give and take as needed in preparation for the “next step”—part of a continuous cycle of improvement.

Personally, lessons learned and reflections made from this action research study have made me a better person and a better leader, both morally and administratively. Specifically, this study encouraged me to look beyond the obvious—to look for the “root of the problem” rather than what appears to be at the surface. I am a better person and leader of my department and employees. This study has encouraged me to step back and reflect on employee perspectives and opinions and let them know I value and will incorporate their contributions into our technology plans. I am also more conscious of developing a foundation of trust, interdependence and teamwork between my employees and a partnership between each employee and me. Professionally, I have and will continue to apply results from this action research study to my practice. I would hope that other professionals could use pieces of this information to benefit their districts, not only through using technology to enhance collaboration and dialogue, but also to further their understanding of the delicate balance between trust, dialogue, and collaboration—pieces all leading to learning organizations.

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Appendix A

IRB Approval and Consent Form



Campus Institutional Review Board
University of Missouri-Columbia

483 McReynolds Hall
Columbia, MO 65211-1150

PHONE: (573) 882-9585

FAX: (573) 884-0663

Project
Number: **1083017**

Project Title: A Leadership Approach to Using Technology to Enhance Organizational Learning and the Creation of a Knowledge-Centered Culture in this School District

Approval Date: 05-08-2007

Expiration
Date: 05-08-2008

Investigator(s): Grogan, Margaret Mary
Stephenson, Gloria Edd

Level Granted: Expedited

CAMPUS INSTITUTIONAL REVIEW BOARD APPROVAL FORM
UNIVERSITY OF MISSOURI-COLUMBIA

This is to certify that your research proposal involving human subject participants has been reviewed by the Campus IRB. This approval is based upon the assurance that you will protect the rights and welfare of the research participants, employ approved methods of securing informed consent from these individuals, and not involve undue risk to the human subjects in light of potential benefits that can be derived from participation.

Approval of this research is contingent upon your agreement to:

- (1) Adhere to all UMC Policies and Procedures Relating to Human Subjects, as written in accordance with the Code of Federal Regulations (45 CFR 46).
- (2) Maintain copies of all pertinent information related to the study, included but not limited to, video and audio tapes, instruments, copies of written informed consent agreements, and any other supportive documents for a period of **three (3) years** from the date of completion of your research.
- (3) Report potentially serious events to the Campus IRB (573-882-9585) by the most expeditious

means and complete the eIRB "Campus Adverse Event Report". This may be accessed through the following website: <http://irb.missouri.edu/eirb/>.

(4) IRB approval is contingent upon the investigator implementing the research activities as proposed. Campus IRB policies require an investigator to report any deviations from an approved project directly to the Campus IRB by the most expeditious means. All human subject research deviations must have prior IRB approval, except to protect the welfare and safety of human subject participants. If an investigator must deviate from the previously approved research activities, the principal investigator or team members must:

- a. Immediately contact the Campus IRB at 882-9585.
- b. Assure that the research project has provisions in place for the adequate protection of the rights and welfare of human subjects, and are in compliance with federal laws, University of Missouri-Columbia's FWA, and Campus IRB policies/procedures.
- c. Complete the "Campus IRB Deviation Report". This may be accessed through the following website: <http://irb.missouri.edu/eirb/>.

(5) Submit an Amendment form to the Campus IRB for any proposed changes from the previously approved project. Changes may not be initiated without prior IRB review and approval except where necessary to eliminate apparent and immediate dangers to the subjects. The investigator must complete the Amendment form for any changes at <http://irb.missouri.edu/eirb/>.

(6) Federal regulations and Campus IRB policies require continuing review of research projects involving human subjects. Campus IRB approval will expire one (1) year from the date of approval unless otherwise indicated. Before the one (1) year expiration date, you must submit Campus IRB Continuing Review Report to the Campus IRB. Any unexpected events are to be reported at that time. The Campus IRB reserves the right to inspect your records to ensure compliance with federal regulations at any point during your project period and three (3) years from the date of completion of your research.

Using Technology to Enhance Communications and Organizational Learning in Pleasant Valley Schools

Informed Consent for Interviews

This form requests your consent to participate in an Action Research (AR) project to gain feedback on and to improve the use of technology communications contributing to organizational learning. The research project will be conducted by Gloria Stephenson under the direction of Dr. Margaret Grogan, Professor and Chair, Department of Educational Leadership and Policy Analysis in the College of Education at the University of Missouri-Columbia.

Project description: This project seeks to gain feedback from the faculty, staff, and administrators on the effectiveness of technology toward increasing professional talk and collaboration amongst staff, thereby leading toward organizational learning. The AR project will include interviews and surveys of participants if program goals have been met. All interviews will be audio-taped and transcribed. Participants will have the opportunity to read relevant transcripts for accuracy.

Potential Benefits and Concerns: The project has the potential to assist with the development of and progress toward organizational learning in the Pleasant Valley School District, through using technology for increased communications, professional talk, and collaboration.

Confidentiality: All information regarding this project will be kept confidential according to legal and ethical guidelines. All information associated with project participants will be kept in locked files accessible only to the AR team and destroyed three years after completion of the project. All identifying information will be cleansed prior to any dissemination of findings and any data disseminated will be in aggregate form. Every effort will be made to protect the accuracy and confidentiality of the data and of the respondents.

Participation is Voluntary: Your participation is entirely voluntary. You can freely withdraw from the project at any time without negative consequences and information related to you will be destroyed.

Results of the Study. The results of this study will be used to further develop and improve the use of technology to enhance organizational learning in this school district and can hopefully used as a model for other districts.

Questions? Please contact Gloria Stephenson (816-918-8916 or geshwb@mizzou.edu) or Dr. Margaret Grogan (573-882-8221 or groganm@missouri.edu) with any questions or concerns. If you have questions about your rights as a research project participant, you may contact the MU Institutional Review Board at 573-882-9585.

PLEASE DETACH THIS PAGE AND GIVE TO THE PROJECT REPRESENTATIVE

Please check the appropriate line to indicate that you have read and understand this letter:

_____ I give consent to participate in this project. I understand that I will participate in interviews designed to gain information about my perceptions of the use and integration of technology to enhance communications, professional talk, and collaboration within the Pleasant Valley School District.

_____ I would like more information before giving consent. Please call me at _____.

_____ I do not give consent to participate.

Signed: _____ (Date) _____

NOTE: Informed consent **MUST** be documented by the use of a written consent form approved by the IRB, and signed by you or your legally authorized representative. A waiver of this requirement can only be granted by the University of Missouri-Columbia Campus Institutional Review Board for the Protection of Human Subjects in Research, in accordance with 45 CFR 46. Also, you **WILL** be given a copy of this form for your records.

Appendix B

Interview Questions – Superintendent, Communications Coordinator, Building Administrators

Using Technology As a Communication Tool
Interview Questions - Superintendent

Description: *All questions will be designed to investigate the role of technology in enhancing communications inside Pleasant Valley School District.*

1. How many times a day do you use components of technology to communicate with colleagues? Please give me some examples of what you use and how you use it.
2. What technology communication tools give you the most information about what is happening in the District? Please give me some recent examples.
3. What technology communication tools give you the most opportunity to provide communication opportunities on a building level (within your cabinet, with your administrators and board)? On a district level (with all employees)?
4. Do you use pieces of technology for professional dialogue and collaboration? If so, what specifically do you use?
5. Do you feel communication through technology enhances opportunities for professional dialogue and communication? In what way?
6. Are there any downsides to using technology for professional dialogue and communication? For example?
7. How often do you use the Pleasant Valley Schools intranet/portal (PVSIntranet) in a week's time?
8. For what purposes do you use PVSIntranet?
9. For what purposes (if any) do you use "the grapevine" section of the portal (PVSIntranet)?
10. Do you think using technology – specifically for professional dialogue and collaboration – for internal communications in the district can be improved? Please give specific examples.
11. Do you feel that professional dialogue is part of developing a learning organization? Why or why not and in what way(s)?
12. Is there anything else about your use of technology and internal communications that I could have asked you? Or anything else you would like to add?

Using Technology As a Communication Tool
Interview Questions – Communications Coordinator

Description: *All questions will be designed to investigate the role of technology in enhancing communications inside the Pleasant Valley School District.*

1. Can you describe your position and role in Pleasant Valley Schools?
2. How many times a day do you use components of technology to communicate with colleagues? Please give me some examples of what you use and how you use it.
3. What technology communication tools give you the most information about what is happening in the District? Please give me some recent examples.
4. What technology communication tools give you the most opportunity to participate in communication on a building level? On a district level?
5. Do you use pieces of technology for professional dialogue and collaboration? If so, what specifically do you use?
6. Do you feel communication through technology enhances opportunities for professional dialogue and communication? In what way?
7. Are there any downsides to using technology for professional dialogue and communication? For example?
8. For what purposes do you use PVSIntranet?
9. For what purposes do you use “the grapevine” section of the portal (PVSIntranet)?
10. Can you give me a summary of the “development/changes” in the portal (PVSIntranet) to meet staff needs over the last year to year and a half?
11. Do you think using technology – specifically for professional dialogue and collaboration – internal communications in the district can be improved? Please give specific examples.
12. Is there anything else about your use of technology and internal communications that I could have asked you? Or anything else you’d like to add?

Using Technology As a Communication Tool
Interview Questions – Building Administrators

Description: *All questions will be designed to investigate the role of technology in enhancing communications inside the Pleasant Valley School District.*

1. How many times a day do you use components of technology to communicate with colleagues? Please give me some examples of what you use and how you use it.
2. What technology communication tools give you the most information about what is happening in the District? Please give me some recent examples.
3. What technology communication tools give you the most opportunity to participate in communication on a building level? On a district level?
4. Do you use pieces of technology for professional dialogue and collaboration? If so, what specifically do you use?
5. Do you feel communication through technology enhances opportunities for professional dialogue and communication? In what way?
6. Are there any downsides to using technology for professional dialogue and communication? For example?
7. How often do you use the Pleasant Valley Schools intranet/portal (PVSIntranet) in a week's time?
8. For what purposes do you use PVSIntranet?
9. For what purposes (if any) do you use "the grapevine" section of the portal (PVSIntranet)?
10. Do you think using technology – specifically for professional dialogue and collaboration – internal communications in the district can be improved? Please give specific examples.
11. What tools or methods do you feel are most effective when district administration/leaders communicate and dialogue with administrators and teachers? Can you give me some examples?
12. Is there anything else about your use of technology and internal communications that I could have asked you? Or anything else you would like to add?