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# Evaluation of the Design, Development, and Implementation of the School Performance Network Portal and Communication Institute

Josephine Crame

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EVALUATION OF THE DESIGN, DEVELOPMENT, AND IMPLEMENTATION  
OF THE SCHOOL PERFORMANCE NETWORK PORTAL  
AND COMMUNICATION INSTITUTE

by

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Submitted in partial fulfillment of the requirements for

the degree

Doctor of Education

Instructional Leadership Excellence at Duquesne

School of Education

Duquesne University

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by

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2004

## Abstract

The School Performance Network (SPN) Portal was envisioned during the formation stage of SPN as the primary mechanism for K-12 educators and SPN partners, to communicate and to collaborate. The purpose of this study was to evaluate the design, development, and implementation of the SPN Portal and Communication Institute as they demonstrate fidelity to SPN's mission: to connect educators with resources and ideas to improve teaching and learning resulting in a change of the culture of education in South Western Pennsylvania.

This study investigated the formative stages of the design, development, and implementation of the School Performance Network (SPN) Portal and Communication Institute to determine the extent of the portal's usage as a communication and collaborative tool. It evaluated the use of the SPN Portal as a tool, used by K-12 educators, to share regional best practices or proven successful practices in education and its fidelity to SPN's mission to lead educational change by connecting educators with one another, to resources, and to ideas based on the successful total school performance framework focusing on five indicators adopted by SPN: learning, results, resources,

culture, and partners. SPN is a non-profit organization consisting of 34 public school districts and 3 diocesan school systems from urban, suburban, and rural communities in 14 counties in Western Pennsylvania.

SPN is a strategy being employed by the Heinz Endowments Education Program bringing together individual initiatives and aims of schools and school districts to accelerate educational improvements across South Western Pennsylvania by leveraging resources, leadership, and communications to strengthen schools. The goal of SPN, started in 1998, is "to provide a broker organization that develops tools and practices that help members (partners) improve learning". SPN's mission is to lead educational change by connecting educators with resources, people, and ideas that will help improve teaching and learning. The SPN Portal is intended to be the mechanism to provide sustainable communication and opportunities for collaboration.

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Dedication

Mary Kocian, a woman of courage,  
My mother and still my teacher

Douglas, Christine, Megan, and Victoria Crame,  
My children and inspiration

Douglas K. Crame,  
My husband and support

Christine, Janet, Mary, and Petrina,  
My sisters and encouragement

In Memory of  
My First Teachers

Peter A. Kocian

Joseph J. Erdeljac



## CHAPTER 1

### INTRODUCTION

#### The Problem

The School Performance Network (SPN), in Pittsburgh, Pennsylvania, is a "strategy being employed by the Heinz Endowments Education Program in bringing together individual initiatives and aims of schools and school districts to accelerate educational improvements across South Western Pennsylvania by leveraging resources, leadership, and communications to strengthen schools" (Heinz Endowments, 2003).

The goal of SPN, started in 1998, is "to provide a broker organization that develops tools and practices that help members (partners) improve learning" (Root, 2002). SPN's mission is to lead educational change by connecting educators with resources, people, and ideas that will help improve teaching and learning (Connections, 2002).

As SPN was being created, the SPN Portal was envisioned as the primary mechanism for SPN partners to communicate and collaborate (Interview, July 31, 2003). The SPN Portal was launched in 2002 (About School Performance Network). The purpose of this study is to evaluate the design, development, and implementation of the

SPN Portal and Communication Institutes as they demonstrate fidelity to SPN's mission.

Historically, over the past 50 years, philanthropic foundations have provided venture capital for educational innovation (Rockefeller, 2000). However, philanthropists, in some cases, have sought to change conditions in which they live by not simply finding "a cause or organization to support, but to found a new one" (Schervish, 2000). It is not enough to simply give financial support to an organization, it is more important to see a sustained effect, a cultural change.

The Heinz Endowments, after a 1996 review of their educational grant making practices, founded a new organization, the School Performance Network. The question to be answered by the review was, "What can be done to create conditions to sustain improvement efforts in education?" (Interview July 23, 2003). The answer was the creation of a "network that could create value through interaction with enterprising people in education to solve problems, create capacity to raise achievement and to sustain educational improvement. It was envisioned the Portal would be the mechanism, the tool, to strengthen the

network concept" (Interview, July 23, 2003; Interview July 30, 2003).

At present, SPN is composed of 34 public school districts and 3 diocesan systems located in 14 counties in Western Pennsylvania representing urban, suburban, and rural communities (About the School Performance Network). SPN subscribes to a total performance philosophy that promotes the continuous effort to promote greater student learning and achievement (US Congressional Record, 2002). The schools, participating in SPN, represent a mix of educational challenges, locations, and approaches and "all subscribe to the need for a persistent focus on uniformly high standards, quality content, and instruction. Participation in the network obliges schools to demonstrate an existing commitment to these ideals" (Heinz Endowments, 2003). The schools and school districts must commit also to the five indicators of total performance schools.

The five indicators were the result of a synthesis of the available researched literature on total performance schools including the work of Newmann and Wehlage (1995) (Interview, July 23, 2003). The indicators with a brief description are:

**Learning** - Make high standards for academic content and achievement the explicit benchmarks for performance throughout entire schools; make the standards align with curriculum and instruction to contribute to quality learning

**Results** - Use reliable performance data to design instruction, monitor achievement, organize professional development, and is accountable for results

**Resources** - Organize and adapt resources for continuous improvement and continuity of leadership

**Culture** - Develop and sustain professional environments that foster enterprising leadership, mutual learning, individual initiatives, and collective responsibility for results

**Partners** - Build partnerships with parents and communities to support comprehensive improvement and

supplement student learning (Heinz  
Endowments, 2003)

### SPN Portal

The homepage of the SPN Portal is focused on the five indicators providing a framework in which information is organized. Access to specific information about SPN, the SPN Portal, SPN discussion groups, being an SPN partner, and becoming a partner as well as highlights such as the current SPN Connections newsletter, in the news items, and opportunity alerts is available from the homepage (See Attachment A). Most educator's portals, as is the SPN Portal, are applications that provide an interface for people to discover, track, and interact with other relevant people, applications, and content (Morrison, Buckley, & Coppo, 1999).

The concept of a portal, as an educational tool, is still in its evolutionary stages. A portal is different from a simple HTML static Web site with framesets, because it has these distinguishing features:

- Portals facilitate the discovery of people, organizations, and content in a meaningful context (Ethridge, Hadden, & Smith, 2000)

- Portals may be personalized to deliver a personal or community desktop to users by establishing unique looks, content, and application interfaces
- Portals are secure, offering user authentication, credential mapping, and sensitive data encryption
- Portals provide consolidated access to contacts, applications, and content
- Portals are single points of entry of service providing a framework for accessing multiple heterogeneous data stores including enterprise databases, e-mail, and other multimedia resources
- Portals provide tracking of activity for the user (Morrison, Buckley, & Coppo, 1999; Ethridge, Hadden, & Smith, 2000).

As educators and the general population continue to define portals as gateways for learning, consideration must be made to the related issues of social and cultural context in which portals are used (Jafari & Sheehan, 2003). "Teaching is a cultural activity" according to Jim Stigler

and Jim Hiebert (1999). As a cultural activity, teaching is a complex system that cannot be changed easily, however to improve teaching, both its systematic and its cultural aspects must be recognized and addressed (p. 97). It is the patterns of relationships and forms of association between educators that make the real difference in determining a successful enterprise bringing about a cultural change (Hargreaves & Fullan, 1998; Fullan, 2001, p. 51).

Teachers learn from many groups, both inside and outside their schools, but they learn most, perhaps, from other teachers in several ways among them through discussions, meetings, and peer coaching (Hargreaves & Fullan, 1998, p. 219). "In applying new technology, teachers often use each other as resources; thus increased learning in a collective group is not surprising" (ASCD, 2003). Learning in context changes the individual and the context simultaneously (Fullan, 2001, p. 126).

In keeping with its mission, the School Performance Network (SPN) Portal is intended to provide a way for educators to communicate with each other, to retrieve and create information, and to transfer and share projects, programs, and ideas. One strategy to improve teaching and

learning is the effective use of technology as a professional development tool, as a vehicle for communication, as a resource for growth, as well as for sharing and enrichment (About School Performance).

Annually, the SPN sponsors a multi-district SPN Portal Communication Institute to provide instruction, materials, and facilities for the development of professional development programs by school district teams. Follow-up comments and questions may be addressed to the respective school districts via the Portal's Discussion Board. "It is expected that teachers will perform better when the exposure setup allow them to apply the content, rather than simply absorb information" (ASCD, 2003).

The mission of the SPN is to lead educational change by connecting educators in schools with resources and ideas (About the School Performance Network). SPN provides schools with access to research that highlights the best teaching methods; it presents opportunities for teachers to hear from prominent researchers; it brings together teachers, principals and superintendents who are eager to implement new methods and approaches; it promotes Cooperative Learning Teams that collaborate across

geographic and political boundaries (About School Performance Network).

To accomplish the mission of educational change, SPN developed three major goals, each focusing on one aspect of the mission. The three goals are:

- 1) To establish Cooperative Learning Teams to assist schools and school districts in working together to develop and use systems, tools, and practices that assist educators in the improvement of teaching and learning
- 2) To develop SPN Partnerships with professional organizations and institutions of higher education, thereby expanding the resources of K-12 schools and encouraging collaboration as a model in the improvement of teaching and learning
- 3) To create and utilize the SPN Portal to provide an electronic network for educators, insuring

long-term effective communication  
that enables educators to access  
collaborate more effectively in  
the improvement of teaching and  
learning (About School Performance  
Network)

The Cooperative Learning Team approach encourages school district partners to cross barriers of time, place, function, and past practices. This approach begins with an SPN-sponsored conversation among SPN partners surrounding a topic that they identify as essential for improving their schools and out of this conversation grows a list of relevant topics for investigation, and ultimately the "learning agenda" for the team. Once several school districts have joined the Cooperative Learning Team comprised of teacher and administrators, SPN assists the team with information, data, and access to partners and resources (About School Performance Network). The school districts individually begin making the changes in their respective districts based on the work of the cooperative learning team's discoveries.

Sustainability involves an awareness in systems thinking about the long term implications of action taken

today" (Senge, 2000, p. 464). The systems view looks beyond immediate learning outcomes to the desired impact on education. The concept of leadership becomes "built in" as teachers combine commitment of moral purpose to the improvement of teaching and learning with a continual pursuit of exemplary practice (Sergiovanni, 1992). The Cooperative Learning Teams assume a leadership role for the changing of practice in their respective school districts.

SPN attempts to change the sharing of resources by fostering "School District Partnerships" and also "community partnerships" with professional organizations and institutions of higher learning. These partnerships enable SPN to act as an "educational entrepreneur" encouraging mutual collaboration for the purpose of better utilization of regional resources (About School Performance Network).

SPN in partnership with Carnegie Mellon University designed the SPN Portal. Its content was developed through the collaborative efforts of educators throughout the area under SPN leadership. It is organized along the SPN "performance framework" enabling educators to develop the tools, systems, and practices necessary to improve teaching

and learning through the sharing of knowledge and resources, and to access ideas.

The portal enables SPN to foster the creation of a community of learners that crosses traditional boundaries of time and geography (About School Performance Network). "The description of the portal as a gateway indicates the idea of two-way communication; School Performance Network members are invited to contribute as well as to receive information, to pose questions as well as present answers, to share tools, systems, and practices that improve teaching and learning" (About the SPN Portal).

Trent Batson (2000) and Jerry Campbell (2001) make a distinction between a commercial portal and an academic portal (scholar portal, campus portal) as each is built on different values and assumptions and is seen as pursuing diverse goals and purposes. The concept of an academic portal was used in higher education institutions, in research laboratories, and in libraries before businesses and corporations explored this medium (Frazee, 2001). Colleges and universities used the Web for research and for the dissemination of information.

Campus portals are the starting points for the exploration of campus resources (Jafari & Sheehan, 2003).

Campus portals provide the opportunity to create: gateways to information, points of access for constituent groups (students, faculty, administration, etc.); mechanism for communication; community and learning hubs" (Eisler, 2000). The SPN Portal was designed with similar attributes as the campus portal in that it provides access to information for specific constituent groups (SPN K-12 educators, higher education faculty, funding organizations, etc.) as well as for the general community (other educational institutions, parents, etc.), and is a mechanism for communication. Commercial portals such as Amazon.com provide users, their constituent groups, with a customized view of everything the respective company sells (Jafari & Sheehan, 2003). For purposes of this research, commercial portals will not be considered.

Campbell (2001) presented the idea of a "scholar's" portal to the Association of Research Libraries as a solution to meet the specific needs of the research community in postsecondary education. His scholar's portal concept may be applied to the SPN Portal's design noting its similarities, however, the difference is that SPN Portal's purpose is not primarily as a research mechanism and, even though, the SPN Portal provides avenues for

publishing, it is not to be implied that this publishing is equivalent to a peer reviewed and refereed journal submission.

Campbell indicates that the development of a scholar's portal is "a complex and expensive undertaking requiring concerted action on a scale difficult to achieve, let alone sustain, within the research library community" (2001). He describes the scholar's portal in terms of the "categories of possibilities" since for him "the potential usefulness of a scholar's portal is so extraordinary...that it would be practically unachievable" (Campbell, 2001). A scholar's portal would:

- Promote the development of and provide access to academically sound content on the Web and facilitate the addition of high-quality material fostering standards, searching across databases, and offering a variety of supporting tools
- Contribute to a reformation in the format of scholarly publishing

- Extend certain elements of traditional services to the Web using asynchronous methodologies
- Discover and promulgate best practices
- Broaden Web-based services into document delivery, provision of specialized supporting materials, experimental shared workspaces, and alternative scholarly publishing activities (Campbell, 2001).

In one of the original proposals prepared by the Information Technology Development Center of Carnegie Mellon University, the SPN Portal was called the "Portal for Collaboration and Knowledge Management of Best Practices in Education." It was proposed that the portal be a joint project by the School Performance Network, Carnegie Mellon University, and Duquesne University with the purpose to provide a mechanism for school administrators and teachers to access and collaborate on best practices for education (Information Technology Development Center, 2000).

The proposed SPN portal, according to the original proposal, would provide the following:

- A single point of entry into a Web site containing links to best practices in education with an interface designed to provide easy access to "channels" of information
- A collaboration function including chats, threaded discussion groups, bulletin boards, and more. Visitors will use these functions to collaborate with other visitors, and the SPN staff can use the information to gather requirements and feedback on the information in the portal.
- Utilities for the SPN to maintain the information in the portal.
- Capability for users to add "reviews" of information contained in the portal and to develop new content. Users will be able to view reviews and content added by other portal visitors. SPN Staff will have the

capability to review any new information contributed and can assess the effectiveness of the material on the portal (Information Technology Development Center, 2000).

"The portal was intended to create enough windows and doors to help teachers ask questions as educators about the system in which they work and to examine their conditions" (Interview July 23, 2003). The vision of the SPN portal was for it to be a dynamic site available to everyone for research and for communication having the capacity for teachers to leave information to be reviewed by others and to come back after reflection" (Interview July 23, 2003).

SPN is results-driven using reliable performance data to design instruction, monitor achievement, organize professional development, and provide a measure of accountability for results (About School Performance Network). In addition to the best practice content introduced by Duquesne University, plans were made to present to SPN partners two separate assessment tools:

1. On-Line Assessment
2. In-Depth Assessment (Meeting Summary, June 23, 1999).

"The On-Line Assessment tool would provide tools to help schools determine if they were ready to commit to the five indicators and what would be necessary to get them to the point of acceptance. The In-Depth Assessment tool would be a specific data collecting process that would guide school districts in a face-to-face situation with a Network Liaison" (Meeting Summary, June 23, 1999). The knowledge accumulated from the assessments would be shared with the network via the portal.

More than a decade ago, educators indicated a need for research about building the knowledge base regarding the online environment (Harasim, 1990). The research, perceived as necessary, was primarily in the area of online distance education regarding the presentation of material, the training of educators for this new teaching environment, and the anticipated results of using this tool.

#### Institute

The concept of an educators' portal is new and therefore introduction of this tool and training in its use were part of the strategy for the implementation of the SPN Portal. The 2002 SPN Portal Communication Institute was held in July 2002 to provide instruction, materials, and

facilities for the development of school improvement projects or programs by school district teams. Training in the use of the SPN Portal as a communication and collaboration tool was presented to four school districts as they developed school improvement projects. "Because nontraditional training is often more sustained, a greater impact on instruction is predictable" (ASCD, 2003).

There is little research on the use of portals for K-12 educators or on how educators as students may be prepared to accept this communication tool. Teaching and learning in the online environment is the researched area that provides some indicators about the use of the SPN Portal by K-12 educators and the training presented in the SPN Portal Communication Institutes. The educators using the SPN Portal are not enrolled in or teaching online courses. The result of this study is to provide some information for the future use of a portal for K-12 educators and the design of training necessary for administrators and teachers to achieve success in using portals.

The research will provide indicators determining the effectiveness of the SPN Portal as a communication tool to engage educators in the establishment of goals to improve

teaching and learning through the sharing of regional best or proven successful practices as they relate to the successful total school performance framework adopted by SPN with its five indicators (About the School Performance Network).

#### Definition of Terms

*Asynchronous learning*, according to the Learning Resources Network (LERN), takes place in an online environment as participants ask questions and make comments anytime, day or night (LERN, 2002). Students and instructors may interact asynchronously while not in the same place at the same time (White and Weight, 2000).

*Course management systems* are software programs that integrate instructional functions such as lectures, moderated discussions, and chat sessions (Ko and Rossen, 2001).

*Distance education* is defined in many ways. In this study, the term distance education refers to the delivery of instruction to locations away from a classroom, building, or site, "by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods" (Instructional Technology Council, 2002).

*HTML* (Hypertext Markup Language) "is the lingua franca for publishing hypertext on the World Wide Web. It is the formatting language used to create Web pages and specify how a page will appear on screen" (W3C).

*Hybrid course* is a term used "to describe courses that combine face-to-face classroom instruction with computer-based learning". (University of Wisconsin - Madison Web site, 2002).

*Online education and Web-based education* as used in this study refers to those courses that are taught entirely over the Internet and do not involve any face-to-face sessions, however, it does "support interactive group communication" (Harasim, 1990, p. 42).

*Portal* is functionally defined as an integration providing a gateway to organized information and data (Norman, 1999). Portals facilitate the discovery of people, organizations, and content in a meaningful way (Ethridge, Hadden, & Smith, 2000).

*Synchronous learning*, as defined by the Distance Learning Resource Network (DLRN), requires the simultaneous online participation of all students and instructors with the advantage of synchronous instruction being interaction is done in 'real time' (DLRN, 2002).

## Purpose of the Study

This study seeks to evaluate the design, development, and implementation of the School Performance Network (SPN) Portal and Communication Institute focusing on the following questions:

1. How has the SPN Portal and Communication Institute supported SPN's mission to connect educators in schools with resources and ideas to improve teaching and learning?
  - a. Through SPN Portal design
  - b. Through SPN Portal development
  - c. Through SPN Portal implementation
2. How has the 2002 SPN Portal Communication Institute advanced SPN's mission to connect educators in schools with resources and ideas to improve teaching and learning?
  - a. Through the engagement of educators in the establishment of goals for their own on-going education
  - b. Through school district improvement projects developed during the 2002 SPN Portal Communication Institute

c. Through the sharing of resources and ideas via the SPN Portal with SPN Partners and other educators in the Western Pennsylvania region

The data and resulting analysis from this study will provide insights into both the theory and practice of using an educator's portal as a communication tool to engage educators in their establishment of school improvement goals, in encouraging the sharing of regional best or proven successful practices, to improve teaching and learning; and its fidelity to SPN's mission based on the successful total school performance framework with its five indicators: learning, results, resources, culture, and partners.

#### Delimitations of the Study

A nonrandom sample of SPN Partners participated in this research. Some of the participants in this research served in an advisory capacity regarding the content design of the SPN Portal and planning for the training in the use of the SPN Portal through the SPN Portal Communication Institute. Other participants were selected from SPN school districts and did not participate in activities directly related to the SPN Portal and Communication Institute.

### Limitations of the Study

There is no published instrument that identifies and evaluates the design, development, and implementation of an educator's portal. The researcher constructed the questionnaire that is reproduced in Appendix B.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Introduction

Educators are familiar with the interaction and sharing of resources and ideas in a traditional classroom or in a face-to-face environment. Educators, as well as many other adults, have learned to use e-mail, the Web, and basic Internet skills to link to resources either as a self-directed learning experience or in a work related environment. This study reviews the literature related to the use of portals, Web sites, and the World Wide Web (Web) as a means to connect educators with resources and ideas to improve teaching and learning.

The School Performance Network (SPN) Portal, the subject of this study, provides a repository for resources and services including educational opportunity alerts and bulletin board discussions as it connects educators from 14 counties in Western Pennsylvania from rural, urban, and suburban K-12 school districts. The portal provides a method of organizing relevant information for SPN's 34 public and 3 diocesan school system partners around the five indicators of total performance schools: learning, results, resources, culture, and partners.

There is little research on the effectiveness of using a portal: to connect K-12 educators to one another, resources, and ideas; to deliver information to them about school improvement trends and projects to improve teaching and learning; and to provide a tool through which educators may communicate with one another as they share information and resources (About School Performance Network). The primary audience for the SPN Portal is K-12 educators, adult learners, who are working in the field of education as superintendents, principals, other administrators, teachers, and technology coordinators as well as other persons interested in the field of education including college faculty, teacher candidates, and education benefactors.

The related research about the use of a portal, the Internet, and the Web as educational tools for adult learners in a specific profession is that of online distance education provided by colleges and universities. This review provides an overview of the literature regarding the successful practices of distance education and course design considerations as they apply to the training supplied in the SPN Portal Communication

Institutes, characteristic of the successful adult learner in an online environment, and the use of portals.

The area of education that is persistently redefining itself is technology's use for continuous education and professional development training for educators (Trentin, 2002). Researchers, in recent years, have devoted increased attention to the systematic use of computer networks with various approaches being tested. "Systematic reform requires policies and practices different from fostering pilot projects for small-scale educational improvement," explains Chris Dede (1997).

Guglielimo Trentin (2002) of the Institute for Education Technology states that the potential of online distance education is seen not only as a means for transmitting material, but as a "setting" for the establishment of a teaching and learning process featuring high levels of interactivity among the participants, a systematic change. The changes and advances in telecommunication technologies are transforming the need for increased education and training, as well as, expanding the capacities to respond to these needs (American Council on Education, 1996).

According to Cahoon (1998), the experiences of adults with the Internet are consistent with the conventional perception about the characteristics of adult learners:

- 1) Their need for life experiences and social situations in motivating their learning
- 2) Their need to apply learning quickly to practical tasks
- 3) Their ability to pursue self-directed learning
- 4) Their struggles to balance learning projects against the constraints of time, space, economic resources, and personal relationships.

The Internet is promising to be one of the most important tools for educators with the Web emerging as the easiest and most popular way to access the Internet. The possibilities of Web-based instruction are boundless (McManus, 1996). Before becoming mainstream, the Web was used in higher educational institutions, in research laboratories, and in libraries. Portals sprang up on university campuses before many corporations even saw a potential for their use (Frazee, 2001).

## Distance Education

Distance education has evolved over the past 160 years from correspondence courses, to educational radio, to one and two-way teleconferencing, and to computer assisted/Web-based interactive learning (Saba, 1999; Simonson, 2000). Improved technologies combined with compression and increased computer speeds at reduced costs are making access to interactive, multimedia instruction readily available to the desktop (Truman, 1995).

Internet-based distance education is emerging as part of mainstream education in higher education institutions and in professional development training efforts in education, business, and industry (Truman, 1995; Trentin, 2000). This is accomplished as distance education provides opportunities for organizations to share resources minimizing the effects of distance barriers and time constraints. Trentin's (2000) description of the evolution of Internet-based distance learning characterizes it from an isolated experience to a collaborative online experience.

Distance education is experiencing sufficient credibility within educational institutions as a delivery method to warrant research about a systems view (Kaufman,

1995). Sustainability, however, involves an awareness in systems thinking of the long-term implications (Senge, 2000). The systemic change extends beyond immediate learning outcomes to the desired impact on the culture. The concept of leadership becomes "built in" as teachers combine a commitment of moral purpose with a continual pursuit of exemplary practice (Sergiovanni, 1992).

#### Adult Education

Educators have the potential to assume a leadership role in the educational system as they assume leadership in the formation of society's future regionally, nationally, and globally. The goal to reform, according to Michael Fullan (2001), "is to develop a greater feel for leading complex change, to develop a mind-set and action set that are constantly cultivated and refined."

The use of the SPN Portal provides educators with opportunities to establish their own educational goals exploring the resources on the portal (About School Performance Network). Online instruction and training theories are shifting from instructor facilitated to more collaborative and learner-centered approaches (Schrum & Berenfeld, 1997). The trend to collaborative learning may be applied to the learning environment of professional

development in education. According to Lynne Schrum and Boris Berenfeld (1997), there are many characteristics of online communication that may pertain to professional development providing instructional designers with more choices regarding the manner of instructional delivery.

Coordinating online communication with professional development for educators may assist in resolving the problem of isolation that teachers and administrators frequently experience due to time and distance restrictions. Through online communication, time for reflection and the sharing of practice with fellow educators may be achieved (Watts & Castle, 1992).

Lorraine Sherry (1996) describes the change from centralized schools to decentralized schools as flexible dynamics of learning relationships permitting schools "to come to students rather than students exclusively coming to the schools" (p. 16). There is little research documenting the process by which educators in higher education make the transition from traditional classroom teaching to teaching online, from the environment where students come to the teacher as the teacher presents online (Couvillon, Hendrix, & Donlon, 2002).

The use of the SPN Portal was intended to facilitate the "networking that could create value through interaction with enterprising people in education to solve problems, create capacity to raise achievement, and to sustain educational improvement" (Interview, July 23, 2003; Interview July 30, 2003). The educators, through the SPN institutes, were to be introduced to the SPN Portal as users (students) of the tool as well as presenters (facilitators) in this medium.

Raymond J. Wlodkowski (1999) states, "Before people can learn, they must be motivated to learn." Effective learning, according to Wlodkowski, does not occur without motivation (p. 3). To achieve the highest quality of teaching and learning at a distance, consideration must be equally made in the theoretical perspectives of learning, subject content, and learning context such as delivery mode and learner characteristics (Naidu, 1994).

Wlodkowski (1999) classifies motivation for adult learners into six factors:

- 1) Attitudes, the creation of a positive attitude towards the learning situation, the subject, and the method

- 2) Needs, the instructor is responsive to the learner's needs
- 3) Stimulation, the building of the learner's interest and maintaining the learner's attention
- 4) Affect, the role of emotions during education
- 5) Competence, the feeling of success for the learner
- 6) Reinforcement, the reward or acknowledgment of the learning resulting in satisfaction

Motivation emerges when students (the adult learners) realize that what they are learning makes sense and is important according to their values and perspectives (Ginsberg & Wlodkowski, 2000). By using the Internet for e-mail and searching the Web, adults are bringing the world to the desktop at their convenience. Their motivation is that they learn the use of this technology both personally and professionally. Barker and Baker (1995) indicate that networked-focused learning is resulting from the "exponential growth" of the Internet where student-initiated data collection and interactive communication

make learning potential incomprehensible with the possibility that "network-focused distance learning will one day eclipse the practice of classroom-focused distance learning' (p. 18).

Research demonstrates that engaging students in learning improves their achievement (Kearsley & Sneiderman, 1998). The more motivated an individual is to learn and to investigate new learning experiences, the higher the level of education is obtained, because "the learning is connected to who they are, what they care about, and how they perceive and know" (Wlodkowski, 1999, p. 74). The learning objective must remain the top priority, the primary motivation, for without it the learner has no direction (p. 303).

Wlodkowski and Ginsberg (1995) provide a three-point motivational conditions checklist: Does the module engender a positive attitude? Do the activities help participants feel more competent? Is the context meaningful?

#### Barriers to the Use of Technology

Frequently approaches to conventional and distance learning are limited because they do not link what organizations (educational institutions included) use, do, produce, and deliver. Most training as well as educational

approaches focus on only one part of the value added, that is the course content (Kaufman, 1992, 1998; Kaufman, Herman, & Watters, 1996). In her research, Karen Murphy (1995) states that there are barriers to adopting and implementing distance education including staffing and equipment. Both teachers and students must be "reoriented from traditional teaching to the online environment" (Murphy, 1995).

Adults may experience anxiety over the use of computers resulting from the fear of the new and unknown. Anxiety, resulting from fear of subject matter, is a condition that contributes to negative learner attitudes, deters adult interest, and is detrimental to learning (Wlodkowski, 1999, 83; Hakkinen, 1994, P. 152). Computer anxiety, as Ayersman and Reed (1995) describe this situation, is a temporary condition that can be reduced through a comfortable learning environment because decreasing the anxiety should be a preliminary goal of instruction.

The adult learner's age and computer anxiety have been the subject of research studies without a consensus of findings. Researchers have found that older adults have a less favorable attitude toward computer use than do younger

adults (Baack, Brown, & Brown, 1991, p. 422) as well as the opposite in that older adults have more interest in learning about the use of computers, greater confidence, and exhibit less anxiety than do younger adults (Klein, Knufer, & Crooks, 1993; Dyck & Smither, 1994).

The technology of distance education itself may pose a barrier to both teaching and learning (Murphy, 1995). To minimize problems regarding the use of technology, students should become familiar with the equipment and potential for the use of technology. Instruction should be made hands-on to engage adults in active learning (Adults and Technology, 1996). Educators, as students, who lack skills in time management and discipline may feel disenfranchised and may lead to access problems that are a policy problem versus a technical problem (Sherry, 1996).

Methods that can enhance distance learning include using high-quality technology, providing training and practice in using the technology, helping learners prepare, and teaming up to combine synchronous and asynchronous instruction (Black, 1998; Schlosser & Anderson, 1994).

The Internet has two real advantages over other media according to Thomas F. McManus (1995), as it combines advantages of other media so that it conveys video and

sound better than a book, is more interactive than a videotape and, unlike a CD-ROM, it can link people from around the world in a cost effective manner. Not all educators are comfortable with this delivery system and not all computers are equally equipped to accept delivery of the materials in an efficient manner. Training in the use of technology or in other areas of professional development for educators "is more effective in changing teachers' practice when it is organized around the collective participation of teachers, focused on active learning (teachers directly apply what they are doing), activities, and coherent (aligned with teacher's professional knowledge or community, as well as with state or district standards and assessments)"(ASCD, 2003).

Raymond Wlodkowski (1999) states that increased exposure to the subject is vital to enhance adult motivation to learn as it minimizes the negative conditions that exist resulting in positive attitudes toward the subject matter and increased learner achievement. Educators need to be comfortable with the tools of technology such as the concept of a portal, the hardware and software used, and the reasons for using them. Researchers do agree that prior positive computer use,

exposure, and experience with computers contribute to lower levels of computer anxiety (Maurer & Simonson, 1993; Hakkinen, 1994; Dyck & Smither, 1994; Ayersman & Reed, 1995).

#### Online Learning

Jonassen et al. (1995) cite research that identifies a good learning experience as one in which the student can "master new knowledge and skills, critically examine assumptions and beliefs, and engage in an invigorating, collaborative quest for wisdom and personal, holistic development" (p. 7). The user or the client of the distance education system is the learner; Nunan (1992) asserts that it is reasonable to allow clients to define what constitutes quality (p. 5).

Schlosser and Anderson (1994) literature review for the Association for Educational Communications and Technology identify distance learning effective teaching skills as:

- 1) Understanding the nature and philosophy of distance education
- 2) Identifying learner characteristics at distant sites

- 3) Designing and developing interactive courseware to suit each new technology
- 4) Adapting teaching strategies to deliver instruction at a distance
- 5) Organizing instructional resources in a format suitable for independent study
- 6) Training and practice in the use of telecommunications systems
- 7) Becoming involved in organizational collaborative planning and decision making
- 8) Evaluating student achievement, attitudes, and perceptions at distant sites.

The SPN Portal as an educational tool to assist educators in the establishment of their own goals (About School Performance Network) addresses this same list for effective teaching skills based on Schlosser and Anderson's (1994) research as well as in consideration of the characteristics of adult learners by Wlodkowski (1999).

Facilitators as instructors must challenge the students to use higher thinking to research, problem solve, and inquire about their own answers (Mizell, 1994). This challenge continues as students incorporate pre-existing views and values to validate new knowledge gained (Hardy &

Olcott, 1995). An adult, who is intrinsically motivated, undertakes a learning activity "for its own sake, for the enjoyment it provides, the learning it permits, or the feelings of accomplishment it evokes" (Lepper & Malone, 1987). Students will challenge themselves and learn more when they value and have an interest in learning, an intrinsic motivation, than when they are motivated by reward and punishment (Deci & Ryan, 1985; McCombs & Whistler, 1997).

Murphy (1995) identifies certain types of interaction as necessary to reframe the quality of teaching and learning at a distance including learner-content, learner-teacher, learner-learner, and learner interface. Interaction also represents connectivity the students feel with their professor, aides, facilitators, and peers (Sherry, 1996). Responsibility for this interaction is upon the instructor (Barker and Baker, 1995). White and Weight (2000) indicate that educators have learned to facilitate interaction between and among students and educators in classrooms, now they must learn to facilitate these types of interaction online.

Wagner (1994) describes an instructional interaction as an event that takes place between the learner and the

learner's environment. The learner's environment may be comprised of the materials posted on a Web site or portal, the information exchanged via e-mail or within an online discussion group or bulletin board. The purpose of instructional interactions is to change learners and to encourage them toward an action state of goal attainment (Wagner, 1994).

#### Training/Instructional Design

Within a traditional instructional design approach, the learner participates in the needs assessment and evaluation stages in the development of an educational product. The evaluation is a key component in the instructional design process with many different forms and strategies for evaluation available. According to Malcolm Knowles (1984), adults need to: explore why the learning is necessary; learn experientially; approach learning as problem solving; and to understand the immediate value of the learning. The collaborative approach enhances the overall acceptance of the immediate task.

Distance education is a team effort. The development of "teams" should include such people as subject matter experts, audio and video production staff, curriculum developers, instructors, instructional designers, course

managers, tutors and writers, and editors (Murphy, 1995). Materials must be designed to provide a substitute for all the things unsaid in class (Naidu, 1994). He adds that the quality of teaching and learning process is dependent upon the quality of the study materials (Naidu, 1994).

The rationale for the SPN Portal Communication Institutes is to encourage and assure that SPN partners as school district teams (Murphy, 1995) use the portal as SPN's primary vehicle for communication (About School Performance Network). The purpose for the institutes is two fold: each school district identifies a project that will meet a particular need within that school district to improve teaching and learning (About School Performance Network; Wlodkowski, 1999; ASCD, 2003) and the school district teams are introduced to the unique features of the SPN Portal. For SPN, the school districts are exposed to the communication features of the SPN Portal and are asked to participate in and monitor a bulletin board discussion (About School Performance Network; Murphy, 1995). The information gleaned from the SPN Portal Communication Institutes is in conformity with SPN's mission to connect educators with one another, to resources, and to ideas to

improve teaching and learning (About School Performance Network).

Roger Kaufman's (1992, 1998) Organizational Elements Model provides a framework that defines the elements (what an organization uses, does, produces, and delivers) of any organization whether private or public, educational or industrial as: Inputs (ingredients); Processes (methods and means); Products; Outputs; and Outcomes.

Discovery learning incorporates a strategy by which educators must be trained to use and integrate newer learning mediums into the online environment (Sherry, 1996). This strategy must assist the learner, the educator, to accept change. According to Combs, Miser, and Whitaker (1999), the concepts of need and motivation must be understood for change to be accepted and educational leadership be realized (p.51). Sherry (1996) cites five conditions conducive for the acceptance of an information exchange via the Internet:

- Shared vision of teaching and learning
- Leadership and support for new technology from administrators

- Organizational conditions allowing flexibility, time, and incentives to experiment with new instructional methods
- Opportunities for communication, interaction, and peer support
- Training and personalized support over time (p. 15)

#### Development Strategies for Educators

Instructors who employ appropriate learning strategies are more effective in online learning (Willis, 1993).

Barry Willis (1993) describes appropriate strategic methods for distance education as those that develop feedback and reinforcement, optimize content and pace, adapt to different learning styles, use case studies and examples relevant to the target audience, personalize instruction, and complement courseware with print materials. Olgren (1995) depicts learning strategies as thoughts and behaviors that intend to influence how someone learns, thinks, and motivates them to carry out a specific learning task.

Distance education was once the realm of the mature, self-motivated and independent adult learner, the research

is still being gathered in this respect, however, with newer technologies such as compressed video, the profile of the distant learner is becoming fuzzy (Hodes, 1995). Distance education has been attractive to nontraditional learners because it minimizes the chance of looking foolish (Hodes, 1995). The emphasis is now on lifelong learning as the nontraditional learner population has increased (Schrum, 1995).

Opportunities for self-directed learning will enhance the adult learner's commitment to collaboration, mutual respect, and collaboration often found in lifelong learning. Adults bring a broad range of experiences to their educational endeavors (formal classes, training sessions, and professional development activities) and expect to infuse new learning into their professional and personal lives (Hardy & Olcott, 1995). Morgan (1994) advocates the use of "orientation" to link the adult learner's social and political context of study with their past experiences (14).

#### Teaching and Learning Theory

Online learning provides opportunities to use interactive, multimedia technologies that cross learning styles and brings greater relevance to instruction (Willis,

1993). In contrast, Jonassen et al. (1995) state, "Few (professionals), if any are paid to memorize information and take examinations" (p. 21). Naidu (1994) explains the construction of an "instructional transaction" following five steps:

- 1) Presentation of content
- 2) Activation of student learning
- 3) Assessment of learning outcomes
- 4) Provision for feedback and remediation
- 5) Evaluation of the impact of the instructional event.

The shift from objectivist theory (Dick & Carey, 2000) to constructivism is becoming more evident as mixed mode deliveries incorporate hypermedia components of instruction (McManus, 1996). Constructivist principles involve the situated learner and problem-based learner as well as the social and physical interaction in defining problems and constructing solutions. Recreation of authentic learning environments is vital in the creation of active learning.

This authenticity does not necessarily need to be perceived as the correct view of reality, but rather to interact and create a personal view of the world (Jonassen et al., 1995). Sherry (1996) quotes the artificial

intelligence researcher Herbert Simon (1994) who said, "Human beings are at their best when they interact with the real world and draw lessons from the bumps and bruises they get" (p. 4).

Researchers, exploring the concept of the integration of constructivist approaches into teacher education, indicate inherent to the online instruction environment is the constructivist concepts of collaboration, construction, context, and conversation (Jonassen et al., 1995). The use of instructional technology tools such as discussion boards, electronic forums, and computer conferencing may provide the learners with opportunities for interaction and exchange of ideas. Technology may be used to create communities of learners and practitioners as it facilitates the interactions and activities necessary for solving problems (Burge, 1994). The concept of a community of learners best accommodates the needs of adult learners when participants are free to set their own goals within a flexible environment (Hayes, 1990).

#### Learner Control

Online learning education gives the learner greater control and not being limited because of time and place (Naidu, 1994). This flexibility provides the learner with

the opportunity to manage individual instruction as is appropriate. The obvious benefit is the accommodation of this distance education model into an already full schedule (Naidu, 1994). The learner must possess skills in wise time management, reach out for peer support and obtain necessary materials to benefit from increased learner control with perhaps the most important part as reducing anxiety while managing self-regulation (Wagner, 1994).

#### Conclusion

This literature review indicates there are definite conditions necessary for educators to be successful learners in an online environment whether it is concerning the use of portals, Web sites, or the Web. Successful adult learners have a need to be connected to their learning materials both professionally and personally.

The use of technology in continuous education is being redefined in terms of formal professional development training and personal enrichment. The experiences of adults in the online learning environment are consistent with the experiences of adults in face-to-face educational settings. Life experiences and social situations affect their motivation to learn; the practicality of this

learning experience must be addressed; and the ownership and pursuit of self-directed learning is critical.

The online environment is suitable to accommodate the limitations to adult learning concerning time, availability of facilities, financial resources, and personal responsibilities and commitments.

Online learning is not a suitable approach for everyone. Internet-based distance learning is emerging as part of mainstream instruction in higher education and in professional development training, however, the acceptance of this approach is contingent on acceptance of systemic change in traditional education methodologies. The decision for "acceptance" relies on several factors including previous training in the use of instructional technology, quality of computers and Internet accessibility, and qualified facilitators.

## CHAPTER 3

### DESIGN OF THE STUDY

#### Introduction

Four types of formative evaluation were used in this study in order to evaluate the design, development, and implementation of the School Performance Network (SPN) Portal and Communication Institute. This study was conducted to determine the effectiveness of the SPN Portal as a communication tool to engage educators in their establishment of goals to change practice for the improvement of teaching and learning; in encouraging the sharing of regional best practices or proven successful practices; and its faithfulness to SPN's mission. The evaluation methods employed were:

1. A questionnaire was given to educators who served in an advisory capacity regarding the content design and the training in the use of the SPN Portal
2. Case studies of three of the four school districts who participated in the 2002 SPN Portal Communications Institute regarding the school improvement project developed during the institute were conducted. The fourth school district was contacted four times and no response was made to the researcher.

3. A review of SPN documents and related materials concerning the original design of the SPN Portal, its development, and implementation process and the training institutes was made

4. Small focus group discussions with SPN Partners: benefactors, superintendents and other administrators including principals and curriculum supervisors, classroom teachers, and technology coordinators  
A questionnaire was used to collect initial data.

Recipients were given an opportunity to complete the questionnaire online or using a hard copy.

After a preliminary analysis of the questionnaires and case studies as well as a review of the SPN documents and materials three focus group discussions were conducted with a subset of questionnaire respondents and other SPN Partners were held in order to further explore the use of the SPN Portal and the effects of the 2002 SPN Portal Communication Institute. In order to maximize interaction, each small group was comprised of three to seven SPN educators from the three school districts.

#### Research Methodology

A qualitative paradigm offered the opportunity to explore new questions by not restricting or diminishing the

occasions for further investigation that emerged during the study of the design, development, and implementation of the SPN Portal and Communication Institute. Qualitative research is essentially multi-method in focus as it permits the examination of content knowledge frequently used when little is known about a certain program, project, or topic and when an inductive approach is considered more appropriate (Johnson & Christensen, 2000). This study will be both exploratory and analytical.

Exploratory investigations scrutinize new or relatively unknown programs to lead to better understanding while analytical studies are conducted to determine principles that may guide future action (Mauch & Birch, 1998). The exploratory nature of the study concerns the use of an educator's portal for communication and collaboration as well as for ongoing continued education for K-12 educators. The use of an educator's portal developed by a not-for-profit and non-academic organization is a new phenomenon, accordingly, requiring the researcher to use an a posteriori approach.

The study examined the issues of the participants involved in the 2002 SPN Portal Communication Institute utilizing a method similar to a 360-degree approach

(Shaver, 1998) involving persons from various educational roles. Information regarding the effects of the institute was gathered from superintendents and other administrators, classroom teachers, technology coordinators, and other SPN partners.

Other SPN Partners, those not participating in the 2002 SPN Portal Communication Institute, were included in this study to add experience, immediacy of their knowledge, and interpretation of projects presented. The two groups comprise the stakeholders in the projects. Stakeholders are those who "have a stake in" or a vested interest in the findings (Patton, 1997).

Qualitative researchers study behavior holistically because this type of research is "ongoing and emergent (Johnson & Christensen, 2000). They try to look at many dimensions and layers of behavior, such as the types of people in the group, how they interact with one another, and what kinds of agreements they have, and how these dimensions come together to describe the group (Johnson & Christensen, 2000).

Qualitative research, therefore, was selected for this study because of the nature of the work of SPN and its primary goal to assist schools and school districts in

working together to develop and use, tools, systems, and practices that educators will use to continuously improve teaching and learning (About School Performance Network).

### Case Study Design

Case study is not a methodological choice, but a choice of object to be studied according to Robert Stake (1994). It is designed by the interests of the participants and not by the method of inquiry employed. Case study design is appropriate for this research to follow because of the "bounded" nature of this study (LeCompte & Preissle, 1993; Stake, 1994; Yin, 1994; Johnson & Christensen, 2000). All three of the school districts to be studied are SPN partners. As recommended by Robert Yin (1994), only the "broad features" of projects of each of the school districts were introduced at the start of the case study (p. 4).

According to Johnson and Christensen (2000), case study is research that provides a detailed analysis of one or more cases (p. 327). Case study researchers can view the external and internal context (p. 328). It was the intent of this research to examine the activity of the participants involved in the 2002 SPN Portal Communication Institute, their respective school improvement projects,

and the perceived impact on the school districts involved in the Portal Communication Institute 2002 and on other SPN partners. Case studies are an appropriate research method when a causal relationship is being explored and not just wanting to describe a situation (Yin, 1994, p. 31).

A multi-method strategy was followed in this study using a structured questionnaire, case studies, review of the SPN documents and semi-structured focus group discussions.

Data was to be collected through either an online questionnaire or a hard copy questionnaire to the SPN school district administrators and teachers who served on the advisory committee to design a training program in the use of the Portal and participants of the SPN Communication Institute in July 2002. The questionnaire (Attachment B) was available via a course management tool (Black Board) and was presented in a format maintaining the anonymousness of the participants. A hard copy of the questionnaire was mailed to each participant. Participants were asked to complete only one questionnaire in the format of their preference. The text of the letter may be found in Appendix C.

Appendix D contains a copy of the consent form for the questionnaire. The researcher sent it to 27 individuals and received 20 completed questionnaires all in hard copy.

The timing of the distribution of the questionnaire, case studies, small group discussions, and analysis of the SPN data was from June 2003 through July 2003. Follow-up discussion group sessions were held from mid-July to mid-August, 2003.

#### Questionnaire Instrument

The researcher prepared the questionnaire as a course project for an independent graduate seminar on research instrument design. It was examined by the instructor and other participants in the course and was rewritten based on the suggestions offered by this group. A copy of the questionnaire may be found in Appendix B. The researcher constructed the questionnaire, because there were no appropriate published instruments available.

#### Validity and Reliability.

Four educators, two classroom teachers and two administrators, to determine the validity and reliability of the questionnaire and proposed group discussion questions, conducted a pilot study using the questionnaire during the first week of June 2003.

"Validity is the most important characteristic a test or measuring instrument can possess because we test for a purpose" (Gay, 2000, p. 161). Validation involves content validity, criterion-related validity, construct validity, and concern over the consequences that arise from use of the measures (p. 162). As explained by Gay (2000), content validity is the degree to which a test measures an "intended" content area (p. 163) and is determined by expert judgment (p. 164); criterion-related validity involves correlating a test with a second measure that is the criterion against which the validity of the initial test is judged (p. 164); concurrent validity is the degree to which scores on one test correlate to scores on another test (p. 165); construct validity asks the fundamental question as to "what is this test measuring?" (p. 167); and concern over the consequences that arise from use of the tests and measures with the evidence of test consequence being linked to test validity (p. 162).

Validity indicates the appropriateness of a measure, but reliability tells about the consistency of the result (Gay, 2000, p. 170). "Reliability is the degree to which a test consistently measures whatever it is measuring (p. 169).

The pilot study group was asked to evaluate the questionnaire and discussion group questions based on these validation issues and definition of reliability. The pilot group had no additional suggestions for change of the questionnaire; however, they indicated that the interview questions needed to be more specific. Their suggestions and comments were considered and incorporated in the final list of focus group discussion questions.

The questionnaire has two parts: project presentations on the School Performance Network Portal and training results of those participating in the 2002 SPN Portal Communication Institute and the use of the SPN Portal.

The first part of the questionnaire was composed of questions pertaining to the participants' observations of the presentation of the projects developed during the 2002 SPN Portal Communication Institute. The questions were presented requiring "yes and no" answers as well as open-ended answers.

The second part of the questionnaire was composed of questions relating to the results of the training received by the participants during the 2002 SPN Portal Communication Institute as well as the use of the SPN Portal itself. The questions also were presented requiring

“yes and no” answers as well as open-ended answers about the communication of the school districts with other SPN Partners and other resources.

#### Focus Group Discussions

Focus group discussions were conducted with 16 of those completing the questionnaire to determine the relationship of the SPN Portal design with the observed training results. Interviewees were selected based on their involvement in an advisory capacity with the initial content design of the SPN Portal, the planning of the SPN Portal Communication Institutes, and their availability to participate in a focus group discussion. A copy of the interview questions is included in Appendix E. The researcher took notes from these group discussion sessions. Appendix D contains a copy of the consent form for focus group interviews.

#### Data Analysis

This study evaluated the design, development, and implementation of the SPN Portal and Communication Institute. The first research question sought to determine how the SPN Portal and Communication Institute supported SPN’s mission to connect educators in schools with resources and ideas to improve teaching and learning. The

second question attempted to determine if the 2002 SPN Portal Institute has advanced SPN's mission through the engagement of educators in the establishment of their own goals for ongoing education, through school improvement project development, and through the sharing of resources and ideas on the SPN Portal.

The questionnaire attempted to answer these questions while focusing on the development and use of tools, systems, and practices to improve teaching and learning. The focus discussion group questions collected information as it pertained to each of the two research questions concentrating on the SPN Portal as a tool for communication and collaboration as well as the results of the SPN Portal Communication Institute.

The case studies were analyzed based on the five indicators of total performance schools; learning, results, resources, culture, and partners.

## CHAPTER 4

### RESULTS

#### Introduction

To evaluate the design, development, and implementation of the School Performance Network (SPN) Portal and Communication Institute, the researcher used four types of formative evaluation:

- 1) Questionnaire was sent to 27 educators involved in the design and/or participated in the 2002 SPN Portal Communication Institute
- 2) Three focus group discussions were held with a total of 14 educators including 10 who had participated in the 2002 SPN Portal Communication Institute and 4 who had not
- 3) Review of SPN documents and related materials from 1996 - 2003
- 4) Case studies following the impact of the school improvement projects of three of the four school districts who participated in the 2002 SPN Portal Communication Institute.

Each of the evaluation methods was employed to determine the effectiveness of the SPN Portal as a communication and collaboration tool: to engage educators

in their establishment of goals to change practice for the improvement of teaching and learning; in encouraging the sharing of regional best practices or proven successful practices; and in its faithfulness to SPN's mission to lead educational change by connecting educators with one another, resources, and ideas (About School Performance Network).

#### Questionnaire Results

A research questionnaire (Appendix B) was used to collect initial data from the 2002 SPN Portal Communication Institute participants. Twenty-seven research questionnaires were distributed to each of the 2002 SPN Portal Communication Institute participants with 20 completed questionnaires returned all in hardcopy. Recipients were given an opportunity to complete the questionnaire online or using a hard copy. The first part of the questionnaire was composed of questions pertaining to the participants' observations of the presentation of the school improvement project developed during the 2002 SPN Portal Communication Institute. The second part of the questionnaire focused attention on the SPN Portal and the 2002 SPN Portal Communication Institute. The questions

were presented requiring "yes and no" answers as well as open-ended answers.

The questions were intended to collect data regarding the effectiveness of the Portal and the 2002 SPN Portal Communication Institute to fulfill the SPN mission and to determine its effectiveness toward the first SPN goal. The first goal is "to establish Cooperative Learning Teams to assist schools in working together to develop and use tools, systems, and practices that improve teaching and learning" (About School Performance Network).

The case studies explored the relationship of the school districts that participated in the 2002 SPN Portal Communication Institute as to how they formed a Cooperative Learning Team. The questionnaire focused on how the SPN Portal and the 2002 SPN Portal Communication Institute related to the development and use of tools, systems, and practices that improve teaching and learning.

Questions 1, 2, 8, and 9 of I Project Presentation solicited data specifically on the use of the SPN Portal as a tool to present information about school improvement projects presented in Table 1.

## Project Presentation

Table 1

### Questions Relating to the Development and Use of Tools

1. Did the presentation of your school district's school improvement project on the SPN Portal meet your expectations?
2. In what way(s), if any, did the presentation of your school district's improvement project on the SPN Portal meet your expectations?
8. Did the use of the SPN Portal effect the presentation of your project idea?
9. In what way(s), if any, did the use of the SPN Portal effect the presentation of your project idea?

Eighty percent (80%) of those who responded to the questionnaire indicated that the presentation of their school district's school improvement project met their expectations. Five percent (5%) indicated that they did not know what to expect and 15% replied "N/A" to question 1. When asked in what way(s) did the presentation meet expectation, six of the twenty respondents indicated that the project itself exceeded expectations and nine persons indicated that the project presentations were the direct result of their participation in the SPN Portal

Communication Institute. Three respondents replied "N/A" and two persons did not answer question 2.

Thirty percent (30%) of the respondents indicated that the use of the SPN Portal affected the presentation of their project idea and twenty five percent (25%) indicated that the Portal Institute affected the presentation. Ten percent (10%) indicated that the SPN Portal did not have an affect on the presentation of their project idea. Twenty five percent (25%) replied "N/A" and two persons did not answer question 8.

Questions 6, 7, 10, 11, 12, and 17 pertained to the systems employed in the respective school districts about the presentation of the school improvement project and the effect on those who are ordinarily a part of the system.

Table 2

Questions Relating to the Development and Use of Systems

6. When was your school improvement project presented in your school district?

7. How was your school improvement project presented in your school district?

10. How many teachers in your school district were trained using this presentation? What grade levels were affected?

11. How many schools in your school district were involved in this school improvement project?

12. How many students in your school district are directly effected by the results of the school improvement project?

17. How is your school district measuring the results of this project?

Seventy percent (70%) of the respondents stated that their school improvement project was presented in August or September 2002 in their respective school districts.

Thirty percent (30%) indicated that the school improvement project has not been presented to the entire school district but only to those directly involved at this stage. Twelve of the twenty respondents stated that the school improvement project was presented during "In service days" and eight did not answer question 7.

Regarding question 10 requesting information about how many teachers were trained using this presentation and what grade levels the responses were: Twenty percent (20%) of the respondents indicated that all of their school district teachers were involved; ten percent (15%) indicated a specific target population of 4<sup>th</sup> through 12<sup>th</sup> grade teachers; fifteen percent (15%) of respondents gave specific numbers in their responses with two persons stating 200 teachers were involved and one person stating 67 teachers. Ten percent (10%) answered, "I don't know"

to the question. Thirty percent (30%) responded "N/A" and ten percent (10%) did not answer question 10.

A "specific number of schools" was given in response to question 11 by seventy percent (70%) of the respondents with eight respondents stating four schools, five respondents stating "one high school", and one response stating two schools. Twenty percent (20%) responded, "all schools." Five percent (5%) responded "N/A" and five percent (5%) did not answer question 11.

One fourth of the respondents gave "N/A" as an answer for question 12 regarding the number of students directly affected by the results of the school improvement project. Six respondents indicated that an exact number is not known since the project has not involved students at this point. Five respondents said that all of the high school students were affected and four respondents stated that all of the students in their school system are affected by their respective school improvement projects.

Question 17 asked about the system that was in place to measure the results of the project. Thirty-five percent (35 %) of the respondents stated that the teachers were directly involved with the measurement with fifteen percent (15%) indicating that teacher activity logs were used in

this measurement and twenty percent (20%) stating that teachers were polled for their opinions. Thirty percent (30%) indicated that a measurement system was not in place but was in the planning stage. Fifteen percent (15%) indicated that they did not know what measurement was being used and fifteen percent (15%) did not answer question 17.

Questions 3, 4, 5, 15, 16, and 18 of the Project Presentation were designed to collect information about the practice of the school improvement project as it related to the expressed need of the participants and the schools districts and how the practice of teaching and learning may have been affected (Table 3).

Table 3

Questions Relating to the Development and Use of Practices

3. What were your anticipated needs for your school improvement project? Did those needs remain constant?

4. Did your project meet the anticipated need in your school district?

5. In what way(s), if any, did your project meet the anticipated need in your school district project? Did your project have an affect on the students in your school district?

15. In your opinion, what if any, are the affects of the project on the students in your school district?

16. Who is responsible for the implementation of the project?

Forty five percent (45%) of the respondents to Question 3 indicated that the project dealt with a change in practice of teaching. Some of the respondents further explained that all teachers needed to accept the change that the school improvement project would bring and teachers would need to be aware of the ramifications of their actions regarding this school improvement project. Others indicated that administrators and parents would need to be involved in the project. Forty percent (40%) of the respondents indicated that resources was an identified need, however, the resources primarily were training, funding or financial backing, equipment, and time. Ten percent (10%) of the respondents indicated that the portal itself represented a need for them and expressed a concern about the use of technology. Five percent (5%) indicated that a need was identified in that the school improvement project had changed during the institute.

One half of the respondents to question 4 indicated that they did not know if the project met the anticipated need in their respective school districts since the

projects were still in the early development stages. One fourth of the respondents indicated that the school improvement projects had met the perceived need within their school district. Five percent (5%) indicated that initially the school improvement project had been met with enthusiasm and the practice of teaching regarding this project had changed for most of the teachers (80%) involved and had decreased (50%) according to the respondent. Twenty percent (20%) responded "N/A" to question 4.

When asked in what ways, if any, did the project meet the anticipated needs in the school districts thirty percent (30%) of the respondents indicated that there was a positive change as demonstrated by an increased number of teachers involved in the projects. Thirty percent (30%) of the respondents did not answer question. 5. Ten percent (10%) indicated that their response for question 5 was given in question 4. Twenty percent (20%) of the questionnaire respondents did not answer the question and ten percent (10%) replied "N/A".

Questions 15, 16, and 18 requested information as to how the school improvement project had an affect on the students and how practice was changed. Forty-five percent (45 %) of the respondents stated "yes" indicating there was

an effect on the students in response to question 15. Fifty percent (50%) indicated that it was too soon to evaluate the effect of the school improvement on the students. Five percent (5%) responded, "Don't know". Question 16 asked for an opinion from the respondents as to what the affects of the project were on the students. Forty-five percent (45%) stated that the project did not involved the students at this point and they could not answer the question at this time. Twenty percent (20%) indicated that there was an improvement in communication with the teachers, students, and administrators because of the project and fifteen percent (15%) indicated a change in practice as teachers were employing new presentation methods for curriculum and more effective communicating with the students. Ten percent (10%) indicated that there were no measurable effects on the students and ten percent (10%) did not answer question 16).

Question 18 asked, "Who is responsible for the implementation of the project?" Fifty-five percent (55%) indicated that the "technology coordinator/analyst" was responsible for the implementation of the project with almost half further indicating that this was a new role for them. Forty percent (40%) indicated both teachers and

administrators being involved in the implementation of the project. One person did not answer question 18.

Questions 13, 14, 19, 20, 23, and 24 (Table 4) were designed to provide indicators of effects of the school improvement project as it related systems and/or practices within the school districts.

Table 4

<p>Questions Relating to the Development and Use of Systems and/or Practices</p> <p>13. Did your project have an effect on the teachers and administrators in your school district?</p> <p>14. In your opinion, what, if any, are the effects on the teachers and administrators in your school district by the results of the project?</p> <p>18. Does your school district collaborate with another school district or another partner on a regular basis regarding the school improvement project?</p> <p>19. In what way(s), if any, has your school district collaborated with another school district or another partner regarding the school improvement project?</p> <p>23. Has your school district shared this project with other school districts? If so, with whom?</p> <p>24. In what way(s), if any, has your school district shared this project with other school districts?</p>
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Twenty-five percent (25%) of the respondents said "yes" to question 13, "Did your project have an effect on the teachers and administrators in your school district?" Sixty percent (60%) indicated that the effect related to

new methodology for course presentation with one third of this group specifically citing the project by name. Fifteen percent (15%) indicated that the SPN Portal Communication Institute affected both teachers and administrators indicating a change in the relationship between the teachers and administrators who attended the institute. Sixty percent (60%) indicated that "all" (both teachers and administrators) must be involved for the school improvement projects to be successful in response to question 14. Twenty percent (20%) responded that a specific number of teachers needed to be involved and implied that only teachers need to be involved. Five percent (5%) indicated that more than just teachers need to be involved, but were not specific as to who the others should be. Fifteen (15%) stated that their projects are still in the developmental stage and the effects on teachers and administrators are not known at the present time.

Questions 19 and 20 requested information about how the school districts collaborated with other school districts and with other partners on a regular basis regarding the school improvement project. More than half (fifty five percent (55%)) indicated that they collaborate on a regular

basis with others. Five persons indicating that Duquesne University was a partner regarding the advancement of the school improvement projects since teachers were enrolled in courses there. Two persons indicated that SPN through informational sessions involved other school districts in the projects. Five other indicated that other partners were involved. Twenty percent (20%) indicated that there was no collaboration with other school districts or other potential partners on a regular basis. Ten percent (10%) responded, "don't know" to both questions. Fifteen percent (15%) did not answer questions 19 or 20.

One half of the respondents to the questions 23 indicated that their school districts had shared their school improvement projects with other school districts through various means including 4 persons indicated the sharing occurred through SPN facilitation, 1 through contact with other school districts represented in Duquesne University School of Education courses, and 5 persons simply responded "yes" to question 23.

Question 24 asked in what ways, if any, has your school district shared this project with other school districts. The responses to this question were not consistent with the indications of question 23. Fifteen

percent (15%) of the respondents indicated that the sharing of information about the project occurred through SPN facilitation. Twenty percent (20%) had indicated this sharing in question 23. Only one person (five percent (5%)) of the respondents answered "N/A" to this question adding, "Word of mouth" and ten percent (10%) indicated "through conversations". Thirty-five percent (35%) responded with "Don't know" or a question mark. Twenty-five percent stated, "None" and ten percent (10%) gave no response to question 24.

Two questions, 20 and 21, in the Presentation section sought to provide indicators relating to the practice and/or use of tools for collaboration (Table 5).

Table 5

Questions Relating to the Development and Use of Practices and/or Tools

20. Has your school district collaborated with another school district or another partner on the project prepared during the SPN Portal Communication Institute? If so, with whom?

21. In what way(s), if any, has your school district collaborated with another school district or another partner on the project during the 2002 SPN Portal Communication Institute?

Forty percent (40%) indicated that Duquesne University was a partner with whom they collaborated regarding their respective school improvement projects in response to question 20. One fourth or twenty-five percent (25%) indicated that "no collaboration" had occurred. Ten percent (10 %) used the expression "not yet" indicating the possibility of future collaboration. Fifteen percent (15%) of the respondents indicated they did not know if their school district had collaborated with another school district or partner and one person (five percent (5%)) did not respond to question 20.

The responses to question 21 indicated that there was additional collaboration with other partners including Beaver Valley Intermediate Unit and Pittsburgh Technology Council and additional collaboration with Duquesne University. Two responses or ten percent (10%) indicated that collaboration with the Beaver Valley Intermediate Unit occurred with one of these respondents stating that collaboration with the Pittsburgh Technology Council was made. Thirty-five percent (35%) of the respondents indicated that collaboration took place through Duquesne University as a partner. Twenty-five percent (25 %) answered "no" to question 21 and five percent (5%) stated

they did not know if collaboration took place with another school district or partner. Ten percent (10%) stated "not yet" regarding collaboration with another school district or another partner and five percent (5%) responded with a question mark. Ten percent (10%) of the respondents did not answer question 21.

The second part of the questionnaire, II Training Results, focused on the use of the Portal in relation to the effects of participation in the 2002 SPN Portal Communication Institute. Nine questions (4, 5, 6, 13, 14, 15, 16, and 17 (Table 6)) in this section focused on the use of the portal and institute as a tool. Questions 1, 2, 11, 12, and 19 (Table 7) sought to identify indicators of perceived systemic changes on the individuals and their relation to the presentation of materials to improve teaching and learning. Possible changes in practices were explored through questions 3, 7, 8, 19 and 20 (Table 8). Questions 9, 10, and 21 (Table 9) concentrated on gaining information about the use of the SPN Portal as a tool affecting the practice of teaching as it related to the professional development of teachers.

Section II of the questionnaire primarily looked at the Portal and the Institute as a tool with more than half

of the questionnaire soliciting information about the use of the portal and the training information. Eleven of the 21 questions in Section II Training Results requested information specific to the development of use of the SPN Portal and SPN Portal Communication Institute as a tool as presented in Table 6.

### Training Results

Table 6

Questions Relating to the Development and Use of Tools in Training Results
4. What, if any, are your reflections regarding the training?
5. Has your understanding of the use of the SPN Portal changed since attending the Institute?
6. In what way(s), if any, has your understanding of the use of the SPN Portal changed since attending the Institute?
9. Has your school district used the SPN Portal as a tool for professional development of teachers?
10. In what way(s), if any, has your school district used the SPN Portal as a tool for professional development?
13. Can the SPN Portal be used for future school improvement in your school district?
14. In what way(s), if any, can the SPN Portal be used for future school improvement projects in your school district?
15. Have you participated in the SPN Portal Discussion Groups?

16. In what way(s), if any, have you participated in an SPN Discussion Group?
17. Why (or why not) did you participate in a Discussion Group?
18. What other observations, if any, do you have regarding the SPN Portal?

The responses to question 4 indicated that there were no negative reflections regarding involvement in the institute. Fifty-five percent (55%) responded that it was a positive experience without one item consistently being attributed to providing it. Examples of the positive experiences included: interaction with other school districts beneficial; well constructed institute plans; prepared instructors; time well spent; and desire to repeat institute. Thirty percent (30%) of questionnaire respondents did not answer the question. Fifteen percent (15%) indicated the training resulted in unexpected future involvement with the expansion of project ideas and use of the portal as a tool to gain and exchange information.

All responses (100%) to question 5 stated "yes" to a change in understanding of the use of the SPN Portal after attending the institute. Answers to question 6 provided some indicators to this "yes" answer, however, the responses did not provide unanimous indication that the

change in understanding will contribute to the increased use of the portal. Sixty percent (60%) specifically stated that they understand what the portal is and some indicated its potential usefulness to teachers and SPN partners. Twenty-five percent (25%) of the respondents indicated that they still were not sure what the portal is or how teachers will use it. Fifteen percent (15%) did not respond to question 6.

Questions 9 and 10 solicited data information about the use of the SPN Portal as a tool for professional development for teachers. Sixty five percent (65%) said "No" and five percent (5%) indicated it had not been used to date in response to question 9 and sixty percent (60%) responding to question 10 that the portal "had not been used" for professional development. Fifteen (15%) responded to question 9 that they had used the portal as a tool for professional development delivery, however, twenty-five percent (25%) gave examples of this in response to question 10 that asked for ways it was used. Fifteen percent (15%) of responses for both questions 9 and 10 did not respond to the questions.

Questions 1, 2, 11, and 12 outlined in Table 7 attempted to glean information about potential effects or

indicators of systemic change as a result of the training provided during the 2002 SPN Portal Communication Institute.

Table 7

Questions Relating to the Development and Use of Systems in Training Results

1. What, if any, are the results of your participation in the SPN Portal Communication Institute?
2. Did you use the material presented during the five days professionally?
11. Has your school district been contacted regarding your school improvement project?
12. In what way(s), if any, has your school district been contacted regarding your school improvement project?

The responses to first question indicated both the portal as a tool and a resource for making connections may result in systemic changes in the way educators relate to one another. Sixty-five percent (65%) of the respondents implied that the participation in the institute by team members resulted in changes to the presentation of project specific material, resource connections, and improved communication within and between school districts. Thirty-five percent (35%) of answers to question 1 indicated the

time provided by the institute for teams to work together had importance.

All (100%) of the responses to question 2 indicated that the individuals used the materials presented during the institute professionally. Ninety percent (90%) responded, "Yes". Two responses or ten percent (10 %) indicated that the materials contributed specifically to completion of the school improvement project plans during the institute.

Questions 11 and 12 asked participants for indicators as to a systems change regarding how school districts contact or connect with one another. Only fifteen percent (15%) of the respondents indicated in response to question 11 that their school districts had been contacted regarding the school improvement project, however, thirty percent (30%) gave examples of ways that their school districts had been contacted. Answers to question 12 stated that the school districts had been contacted by SPN to present to other school districts, SPN partners, and other school districts contacted specific school districts as a result of participation of school district team members in Duquesne University courses. Twenty-five percent (25%) of respondents to question 12 stated they "have not been

contacted." Ten percent (10%) replied, "N/A" and twenty percent (20%) replied, "Don't know". Fifteen percent (15%) of questionnaire respondents did not answer question 12.

Questions 3, 7, 8, 19, 20, and 21 listed in Table 8 solicited responses as to how the use of the SPN Portal and the results of the training of the SPN Portal Communication Institute affected practice of the teachers personally and professional in the school districts.

Table 8

Questions Relating to the Development and Use of Practices in Training Results

3. In what way(s), if any, did you use the material presented during the institute professionally?

7. Have you used the SPN Portal to access information?

8. In what way(s), if any, have you used the SPN Portal to access information? What types of information did you access?

19. What effect(s), if any, has the use of the SPN Portal had in your school district?

20. What effect(s), if any, has the SPN Portal had on your school district regarding the improvement of teaching and learning?

21. What effect(s), if any, has the use of the SPN Portal had on you professionally?

Fifty-five percent (55%) indicated that practice in the school districts might have been changed as a result of the school district teams involvement in the institute in response to question 3. Ten responses indicated that the materials presented during the institute are included in guides used by teachers for the school improvement project including clarification of terms and one response indicated "all" of the institute materials were used toward the completion of the project. Three responses indicated that they did not use the material professionally, one person responded that the material had been used personally, and five persons did not answer question 3.

Thirty-five percent (35%) of those who participated in the 2002 institute and completed a questionnaire indicated that they had used the SPN Portal to access information with fifteen percent (15%) indicating that they intend to use it in the future. Twenty-five percent (25%) replied that they had not used the SPN Portal to access information and twenty-five percent (25%) did not answer question 7.

Question 21 asked for information about the effects of the SPN Portal on the participant professionally. Thirty percent (30%) indicated that they consider the SPN Portal

to be an accessible resource stating that it is a resource for regional and SPN information, available 24 hours a day and seven days a week. Three respondents indicated they were optimistic of the promise to post their own materials and questions on the SPN Portal. Ten percent (10%) of the respondents indicated that the effect of the portal might be realized professionally over time. Fifteen percent (15%) indicated that there was no perceivable professional effect on them regarding the use of the SPN Portal. Twenty percent (20%) of the questionnaire respondents replied with "N/A" and ten percent (10%) did not answer question 21.

#### Focus Group Discussions

Focus group discussions were conducted with 14 of those completing the questionnaire to determine the relationship of the SPN Portal design with the observed training results. Discussion participants were selected based on their involvement in an advisory capacity with the initial content design of the SPN Portal as well as the planning of the SPN Portal Communication Institutes, and their availability to participate in a focus group discussion. A copy of the focus group discussion questions is included in Appendix D. The researcher took notes from these discussion sessions.

A total of 15 questions were asked of each group and the researcher attempted to keep the language used for the questions consistent with all three groups. Two of the focus group discussions were conducted face-to-face in a meeting room in their respective school districts. A third focus group discussion was conducted using a conference phone call. The researcher made an effort to capture and make note in this study of quotes made by each of the 14 discussion participants attempting to give fair representation of those who attended the institute and those who did not.

The discussion groups are identified as: Group 1, a small suburban school district; Group 2, a parochial school system; and Group 3, a large suburban school district. At the request of one of the school districts no other identifiers will be used. The names of the individuals participating in the discussion are not indicated to maintain the anonymousness of the study.

#### Description of the Focus Discussion Group Participants

Four of the individuals participating in the focus discussion groups did not attend the March 2002 Portal institute planning retreat, an information session, or the 2002 SPN Portal Communication Institute. Two persons

attended the institute planning retreat, but did not attend an information session or the institute. Three persons attended the institute, but did not attend the planning retreat or an information session. One person attended the institute and also an information session regarding the institute in April 2002, but did not attend the planning retreat. Four persons attended the March planning retreat and the institute.

All participants had at least four years teaching experience or administrative experience in their respective school districts. There were five women and nine men who participated in the focus group discussions. The focus group discussions were conducted from mid-June 2003 to mid-August 2003.

#### Focus Group Discussion Questions

The focus group discussions focused on two main areas: the use and purpose of SPN Portal and the perceived effects of the SPN Portal Communication Institute. Seven questions focused primarily on the use and purpose of the portal, four concentrated on the SPN Portal Communication Institute, and 1 solicited responses about both the portal and the institute.

SPN Portal.

Table 9 lists the questions focusing on the SPN portal.

Table 9

Questions on the Use and Purpose of the SPN Portal
1. Do you use the SPN Portal?
2. In what way(s), if any, have you used the SPN Portal?
3. What is your understanding of the purpose of the SPN Portal?
8. Do you think that the SPN Portal can be used for school improvement projects? How have you used the portal to promote school improvement projects?
9. In what way(s), if any, can the SPN Portal be used for future school improvement projects in your school district?
10. & 11. Have you participated in an SPN Discussion Group? In what way(s), if any, did you participate in an SPN Discussion Group?
15. What other observations, if any, do you have regarding the SPN Portal and SPN Portal Communication Institute?

The first question on the use of the SPN Portal encouraged ten people to engage in discussion. Group 1 indicated that two members of the group had used the portal to look up general information and to prepare for the group discussion. Two discussion members had not used the SPN Portal. In the second group all participants had used the portal for specific SPN partner contacts and for research.

"Our team uses the Portal and we refer our teachers to it," stated one participant. The third group indicated that the use of the Portal was contingent on the completion of their school improvement project.

When asked the second question about the ways the SPN Portal has been used. Group 1 indicated there were items of particular interest that attracted them once on the Portal such as information on Lesson Study, links to other educator web sites, and the SPN citation in the Congressional Record. "Time" was one of the factors for those who had not used the Portal, "Unless I know that I will find what I am looking for, I don't have the time to just browse." Another factor common in two of the groups was the fact that the individuals did not know the SPN Portal existed.

Group 2 indicated that the portal is frequently used:

- "To access information about issues in our schools. "
- "To refer to the list of SPN partners to e-mail them for information.'
- "To look at the whole portal to get ideas about what is being done regarding technology integration."

Group 3 maintained a relationship with the use of the portal being dependent upon their school improvement project:

- "We have not fully utilized the portal, because we are at the developmental stage of our project."
- "We put our initial information on it and have added to it with updated information."
- "I used it to see what was on it."

All three focus group discussions indicated that the purpose of the SPN Portal is for communication, collaboration, and to make connections with other school districts and organizations. All three focus group discussion made note of the SPN Portal as an extension of SPN as one comment noted, "The purpose of the portal is the same as for SPN, to network teachers in the schools with each other."

All three groups commented about the Discussion Groups on the portal, "I saw there are discussion groups where teachers can talk about answers to certain questions like the ones that are on there about No Child Left Behind," observed one person in Group 1. Reference was made to the information presented in the institute about posting questions and comments in the discussion session and about

featured speakers at specific times available through the electronic forums. When asked about their participation in the Discussion Groups, many of the participants indicated a reluctance to participate because of lack of training to do so and familiarity with the technique. Several individuals indicated that they were familiar with Discussion Boards because of college experiences.

Question 8 requested the participants to share their thoughts about how the SPN Portal can be used for school improvement projects and also how the portal may be used to promote them. One person indicated that they have not used the portal and probably would not in the future. Another person stated, "It will take a lot more people getting trained in how to use the portal." Three others agreed. "Just putting technology in the hands of teachers is not enough" and "They need training because they are too busy to try to figure it out on their own" were other comments. The majority of the participants, twelve individuals, expressed optimism that the SPN Portal has the potential to be used for the sharing of best practices for school improvement projects.

One Group 2 participant stated, "I have used the portal to find information about contacting other schools

regarding the integration of technology into their curriculum and reviewed other projects presented on it for ideas about delivery and accountability." Two of the three discussion groups focused on their respective school improvement projects and their optimism for getting responses back from other school district partners.

Question 9 asked the group discussion participants to consider future school improvement projects. Some individuals indicated uncertainty for future school improvement projects indicating without teacher training this initiative will not succeed while others seemed comfortable that there are many teachers who have experience in using portals and discussions boards who may not need the training. One Group 1 spokesperson said, "Right now the only feature that would help with district wide projects is the discussion board. I am not sure, if teachers would know how to use it. Some would because of previous experiences."

The discussion around this question concentrated on the future aspect of the SPN Portal, some of the comments were:

- "There is a potential for the SPN Portal to be used for school improvement project, but I see it on a

bigger scale than just one school district. I don't know how one school district could work on a project, present it to their teachers, and also use the portal to do it."

- "I hope that the SPN Portal can continue to be a place where school information can be exchanged. I can only imagine the services that will be available through it as technology improves."
- " In the future, I think there will be more resources on the portal with more schools and teachers putting their information up on it...travel to Pittsburgh can be difficult and some of our teachers do not like to travel far...I would love to see forums and meetings live through teleconferencing on it."

One brief conversation initiated by Group 1 regarded the capacity for reflection using the portal, an online medium for sharing information. Group 1 throughout the small group discussions made note that the demands on teacher's times need to be considered. The group indicated that the "luxury of taking time for reflection" was important.

Questions 10 and 11 concentrated on the use of SPN Discussion groups. Some of the institute participants

focused on the online discussions that were part of the institute citing that they enjoyed the experiences. None of the participants have joined in any discussion groups on the SPN Portal since the 2002 institute. There were four principle reasons given for no discussion group participation:

1. Reluctance to represent school districts with personal comments
2. Lack of knowledge to do so and a need for training
3. Limited availability of time to do so
4. The need for SPN "to advertise" that the discussion groups are available.

Comments indicating a reluctance to join in a discussion because of being identified as a school district spokesperson were:

- "I would participate in an online discussion, if it involved a whole team. I would not want to be responsible to represent my school district."
- "I think the two biggest drawbacks to the discussion groups are teachers afraid to use them and afraid to write something wrong."

- "I liked the questions (on the Portal) about Literacy and No Child Left Behind... I didn't want to make a comment about our language arts program."

Five individuals discussed a willingness to participate in discussions; however, they cited a need for more training to do so. Listed are some of their comments:

- "I know we talked about online discussion at the institute, but to do it on my own I am not sure about it."
- " I learned there is a proper way to participate in a discussion and I am eager to do it again but think others need to be introduced to it as I was."
- "There are teachers that would not be comfortable to join in a discussion without some kind of workshop on how to do it and why."

Some of the educators in response to question 15 regarding the potential for the SPN Portal to be an efficient tool to promote communication and collaboration for K-12 educators indicated that the same reason for the hesitation to join in a Discussion Groups also prohibit the use of the portal. These comments included: a need for an introduction to the portal and training in the use of the portal and its features; the limited availability of time;

and the need to advertise the SPN Portal and introduce it to K-12 educators.

Communication Institute.

Table 10 lists the five questions that pertain to the SPN Portal Communication Institute. These questions were presented to all in the discussion group including those who had not attended the institute.

Table 10

Questions Regarding the SPN Portal Communication Institute

4. Has your school district considered sending a team to participate in the SPN Portal Communication Institute? Has your school district sent a team to the SPN Portal Communication Institute?

5. What project would your school district want to develop and present through the SPN Portal Communication Institute? What project has your school district presented on the SPN Portal?

Follow-up question to 5.: Do you have plans to replicate any school improvement project ideas presented by other school districts on the SPN Portal?

6. &7. Has your school district been contacted regarding participation in an SPN Portal Communication Institute? How were you contacted to participate in the institute?

15. What other observations, if any, do you have regarding the SPN Portal and SPN Portal Communication Institute?

The discussion focusing on question 4 revealed that not all SPN information is shared with the teachers and

other individuals. One person stated with enthusiasm that she was glad to see that Opportunity Alerts were listed on the Portal so that she will have an opportunity to see them.

SPN uses "Opportunity Alerts to facilitate collaboration among and between its School District Partners by informing school district partners about meetings, collaborations, opportunities to share tools, systems, and practices to improve teaching and learning" (About School Performance Network).

The conversation also indicated a desire by most of those who attended the 2002 SPN Portal Communication Institute and those who had not to attend a future institute. One participant described the institute as, "It was a very good experience, because we networked with other schools at the institute and since that time networked with SPN Schools, other schools, and with Duquesne University."

Question 5 requested participants to consider future school improvement projects that might be developed through the SPN Institute and if there are any plans within the school districts to replicate project ideas already presented on the Portal. All three discussions started the discussion on this topic about their specific projects

developed during the 2002 SPN Portal Communication Institute. All three indicated that these projects are still important in the school districts. Groups 2 and 3 indicated that their institute project is continuing to evolve and meet new school districts as they unfold.

Comments were made about other school district projects on the portal and the collaboration opportunities because of them. One comment was, "I think we would consider replicating or at least consulting with other schools about projects on the portal. We attended an information night on the distance education project and want to know more about it."

One school district indicated that distance is an issue for them and it is not easy to come to Pittsburgh for meetings. One technology analyst stated, "It is good to be able to see information about projects on the portal and then to contact the people involved via the portal. I would still like to talk with people about projects and programs before trying to replicate them."

Some of the comments gleaned from the responses to Question 15 endorse the concept that communication and collaboration among partners is important. "SPN gives us the opportunity to not only share the triumphs and

stumbles, but offers a chance to exchange ideas and gain new perspectives from well-informed educators who bring different and, perhaps, valuable views," commented one teacher who had not attended the institute. Another person concluded the discussion with "communication via the portal establishes a common medium by which various districts may collaborate regardless of schedules, technology platforms, limited resources, etc."

#### Review of SPN Documents and Materials

The mission of the School Performance Network is to lead educational change by connecting educators in schools with resources and ideas (About the School Performance Network). The School Performance Network provides schools with access to research that highlights the best teaching methods; it presents opportunities for teachers to hear from prominent researchers; it brings together teachers, principals and superintendents who are eager to implement new methods and approaches. It promotes Cooperative Learning Teams that collaborate across geographic and political boundaries (About School Performance Network).

To accomplish the mission of educational change, SPN developed three major goals, each focusing on one aspect of the mission. The three goals are:

- 0) To establish Cooperative Learning Teams to assist schools and school districts in working together to develop and use systems, tools, and practices that assist educators in the improvement of teaching and learning
- 0) To develop SPN Partnerships with professional organizations and institutions of higher education, thereby expanding the resources of K-12 schools and encouraging collaboration as a model in the improvement of teaching and learning
- 0) To create and utilize the SPN Portal to provide an electronic network for educators, insuring long-term effective communication that enables educators to access information, to share information and resources, and to collaborate more effectively in the improvement of teaching and learning (About School Performance Network).

The School Performance Network in partnership with Carnegie Mellon University designed the SPN Portal. The purpose of the SPN Portal, from a design perspective, is to provide a mechanism for school administrators and teachers to access and collaborate on the best practices for education (Design Summary, September 2001). Its content

was developed through the collaborative efforts of educators throughout the area under SPN leadership.

In one of the original proposals prepared by the Information Technology Development Center of Carnegie Mellon University, the SPN Portal was called the "Portal for Collaboration and Knowledge Management of Best Practices in Education." It was proposed that the portal be a joint project by the School Performance Network, Carnegie Mellon University, and Duquesne University with the purpose to provide a mechanism for school administrators and teachers to access and collaborate on best practices for education (Information Technology Development Center, 2000).

The proposed SPN portal, according to the original proposal, would provide the following: access into a Web site containing links to educational best practices with an interface designed to provide easy accessibility to additional information; discussion boards, threaded discussion groups, bulletin boards; utilities for the SPN to maintain the information in the portal; capability for users to add "reviews" of information contained in the portal; capability for educators to post information to be shared (Information Technology Development Center, 2000).

The SPN Portal is organized along the "performance framework" of learning, results, resources, culture and partners, enabling educators to develop the tools, systems and practices necessary to improve teaching and learning through the sharing of knowledge and resources and to access ideas (About School Performance Network). The Portal enables SPN to foster the creation of a community of learners that crosses traditional boundaries of time and geography (About School Performance Network).

To sustain the community of learners, Cooperative Learning Teams are formed to assist schools and school districts in working together to develop and use systems, tools, and practices that assist educators in the improvement of teaching and learning. SPN's role in the Cooperative Learning Team process is that of a catalyst, recognizing emerging opportunities, and convening the educational partners who might benefit from them. The Cooperative Learning Team begins formation with an SPN-sponsored conversation on a topic that a school district or other SPN partner has identified as essential for improving performance in schools. Out of the conversation grows a list of relevant topics for investigation that is then investigated using a "total performance" approach,

involving: use of data to support decisions; use of resources; focuses on learning (classroom); linking with partners; emphasizing a culture change of teaching and learning (About School Performance Network). SPN has three Cooperative Learning Groups.

The third cooperative learning team that was formed is the Technology Cooperative Learning Team. This team focuses on the integration of technology into the school curricula, adherence to Pennsylvania State Academic Standards for Technology in Education, and explores avenues for professional development of teachers using technology within each discipline. There are four school districts involved in this cooperative team all four were participants in the 2002 SPN Portal Communication Institute. Three of these school districts agreed to be a part of this researcher's case studies.

#### Case Studies

In conformance with its mission, the School Performance Network (SPN) Portal attempts to provide a way for educators to communicate with each other, to retrieve and create information, and to transfer and share projects, programs, and ideas. One strategy to improve teaching and learning is through the use of technology as a professional

development tool, as a vehicle for communication, as a resource for growth, as well as for sharing and enrichment. Using the SPN Portal, school district partners were invited to develop and share information about school improvement projects created to meet a specific need within each school district (About School Performance Network).

In 2002, SPN sponsored its 2002 SPN Portal Communication Institute to provide instruction, materials, and facilities for the development of school improvement projects or programs by school district teams. Four SPN partners participated in the 2002 institute. Three Western Pennsylvania public school districts and one parochial school system participated in the institute. Two of the public school districts and the parochial school system agreed to participate in this study. One school district requested that it not be identified and, therefore, none of the districts will be identified other than by Public School District A, Public School District B, and Parochial School System.

#### Public School District A

##### Demographics.

Public School District A is located in South Western Pennsylvania. It has a total school enrollment of 2,100

students. There are three schools in this suburban school district. The Middle school and Senior high school share one building and there are two elementary schools. Population according to grade level is: elementary schools K-5 approximately 1,200; middle school grades 6-8 approximately 300; and Senior high school approximately 600. The school district covers a geographical area of approximately 38 square miles. This information was obtained from Public School District B's Web site and from Standard and Poor's School Evaluation Services (2003).

#### Project History.

Public School District A has been involved with the School Performance Network since its inception. It was one of the original school districts involved in the Schools that Work strategy employed by the Heinz Endowments in 1998 and 1999 with the vision of creating the School Performance Network (Interview July 23, 2003). School District A was one of the three public school districts that participated in the March 2002 Portal Communication Institute planning retreat (About School Performance Network).

In March 2002, the team attending the retreat from School District A decided to focus attention on the development of a pilot course that would create an

electronic portfolio for graduation. This school district was still scheduled to work on this project up until the second day of the 2002 SPN Portal Communication Institute. Because of connections made at through the institute and the availability of resources, School District A transferred its efforts to the development of a plan to introduce hybrid distance education into the high school curricula.

The original school improvement project was continued as reported on the SPN Portal and through small group discussions with the school district, however, it no longer required the concentrated effort of the entire six-person team sent to the institute. Since the portfolio project is presented on the SPN Portal and it was developed because of the SPN Portal Institute it is presented in this study as well as a study about the introduction of hybrid distance education into the high school curricula.

#### Electronic Portfolio School Improvement Project.

School District A developed a pilot course during the first day of the 2002 SPN Portal Communication Institute for a group of 5-10 students enrolled in an independent study. School district resources would be available to the students for the creation of video productions, Web page

designs, Power Point presentations and the use of other electronic equipment in the tech lab. Future expansion plans for this course included course materials for those students who were planning on going to work upon graduation from high school. A technology teacher offers the course to students; however, it is not a distance education course. This was School District A's first attempt to develop online courses. This information was gathered from the SPN Portal and through conversations with School District A's high school principal and technology director.

#### Hybrid School.

During the SPN Portal Communication Institute, School District A was introduced to the SPN Portal and developed a plan for infusion of technology into the K-12 curriculum and instruction. Through meetings during the institute with faculty from Duquesne University, it was decided that a group of four teachers would participate in the distance education certificate program and three would pursue a Masters Degree in instructional technology at the university in the fall of 2002. The plan included that the three teachers would become "lead learners" in each of their respective buildings. All seven teachers were asked

to develop a "hybrid" online proposal for the school district while taking their courses.

The seven teachers continued in their course work from the fall of 2002 through the fall of 2003 at Duquesne University and plans are that five more teachers will begin in the distance education certificate program in the spring of 2004. The seven teachers piloted one class of their intended hybrid online course as a class requirement at Duquesne University. One teacher has designed an Advanced Placement Economics Class totally online distance education course for high school students that will be piloted in the fall of 2003.

The district plans to offer an "array of pilot 'hybrid' online courses to the student body in the fall of 2004 with the goal of a full complement of 'hybrid' courses as a part of the curriculum offerings by the fall of 2005" according to the school district director of technology.

"We are not looking to put something out on the Network just to have a presence," states the high school principal, "We are committing ourselves to a longer process to ensure that we develop and implement a successful program." The school district plans to become a "Hybrid" school offering a menu of traditional and online

courses available to all students. After researching this idea, the school district concluded that a hybrid school would better meet the individual needs of students increasing the overall academic achievement of students in the school district.

#### Technology Initiative 2003.

The school district is moving forward with their technology initiative in 2003 by including more staff in the project and soliciting help from other organizations. The technology director is creating online staff development modules in the use of technology to expand the school district's capacity to offer innovative professional development for staff. Other teachers enrolled in the Duquesne University program are in the process of developing specific units within their regular courses.

The Pittsburgh Technology Council, a non-profit trade organization (Pittsburgh Technology Council Web site), trained the entire school district staff in March 2003 with core technology competencies based on national education technology standards. These competencies were designed to expand the capacity of the school district staff to incorporate these standards into lessons. Through the Pittsburgh Technology Council the Beaver Valley

Intermediate Unit was enlisted to facilitate additional technology training specifically in their program "Core Teaching Skills for the Information Age", a program developed by the Pennsylvania Association of Intermediate Units and the Pennsylvania Department of Education. An e-Builder program is offered through the Beaver Valley Intermediate Unit and four other public school districts have joined with Public School District A in it. The program offers templates to develop online course. School District A is the lead learner in this cooperative program.

Public School District A Project and School Performance.

Table 11

<p>Public School District A Project and SPN's Indicators of Total School Performance</p> <p><b>Learning</b></p> <ul style="list-style-type: none"><li>• The school district does not want to merely have a presence on the Internet but to develop courses based on national and state educational standards that will meet the needs of their educational community</li><li>• The school district has invested in teachers to attend Duquesne University to participate in formalized training in the development of distance education courses</li><li>• Pilot courses will be conducted before introducing them to the school district at large</li></ul>
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- The "learning" and mastery of skills for teachers is provided by the school district and other partners based on sound instructional measurements

### **Results**

- Research was made to determine if there was a need for the a hybrid distance education curriculum
- Performance data was collected to design the curriculum utilizing coursework from Duquesne University, Pittsburgh Technology Council, and the Beaver Area Intermediate Unit
- Professional development plans are long term based on research and observations both "in house" and with other organizations
- All stakeholders: administrators, technology coordinators, and teachers have accountabilities

### **Resources**

- All staff: administrators, technology coordinators, and teachers are participating in formal training sessions provided by school district staff and others creating a basis for strong leadership
- SPN and SPN Portal Communication Institute instruction and resources were used for the development of the process
- Information is shared on the SPN Portal

### **Culture**

- All school district staff are being affected by the school improvement project
- All staff have certain levels of responsibility and accountability to contribute to the initiative's success

- The professional development is ongoing and not just one time
- Plans made during the institute included the sharing of information via the SPN Portal

#### **Partners**

- SPN and SPN partners are involved in this project through the Portal Communication Institute
- Increased confidence in the partnership/affiliation with the Duquesne University, the Pittsburgh Technology Council, and the Beaver Valley Intermediate Unit
- Involved SPN, SPN Partner schools and other schools in the initiative

#### Public School District B

##### Demographics.

Public School District B enrolls students from one municipality and two boroughs in Western Pennsylvania covering a geographic area of approximately 38 square miles servicing a population of approximately 20,200. There are three K-5 elementary schools, one middle school grades 6-8, and one senior high school grades 8-12. There are approximately 3,700 students in this suburban public school system including almost 1,300 in the senior high school. This information was obtained from School District B 2002-2003 information brochure.

### Project History Overview.

In 2000, School District B petitioned the Pennsylvania Department of Education to financially support the school district's vision for technology infusion. School District B received a \$100,000 planning grant to further its plans for the use of technology. During the 2002-03 school year, funds were allocated to purchase six mobile computer labs; three for the Middle School and three for the Senior High School. The mobile labs became known as Computers on Wheels (COWS).

School District B sent five representatives to the two-day March 2002 Portal Institute Planning Retreat. Four of those representatives also participated in the 2002 SPN Portal Communication Institute. A plan was devised as to what was needed for successful process to introduce the COWS to teachers and students during the SPN Portal Communication Institute and information was prepared and presented on the SPN Portal to share with other school districts.

As planned in the fall of 2002, School District B purchased new computer equipment both hardware and software, made upgrades to existing equipment, provided to all staff access to the district's electronic grade book

and attendance system, and made all school libraries Internet compatible and networked within the schools. The professional development of the staff, providing in-service training on the new equipment and soft ware applications, started in the fall of 2002 and continued throughout the academic year. The school district also has an efficient, district- wide electronic system allowing for greater comprehensive data analysis.

In January 2003, School District B was recognized as a Pennsylvania Technology School of Excellence, an honor presented by the Pennsylvania School Boards Association. In addition to this state recognition, School District B was nominated to receive national recognition in October 2003.

The Pennsylvania School Board Association with School District B hosted a education technology symposium in the spring of 2003. School board members, technology coordinators, and administrators from across Pennsylvania came to learn how technology supports comprehensive school operations. SPN presented at this symposium about how the SPN Portal and the Portal Communication Institute are connecting SPN partners.

For School District B involvement in the 2002 SPN Portal Communication Institute and development and the focus of the COWS initiative was to "better understand" how to maximize technological tools, resources, and the processes that support efficient and effective practices. "Teachers have expressed the need for increased access to computers and the Internet as well as peripheral equipment and software in survey responses. " states the School District B's team on the SPN Portal. It also cites other school district information sources including strong quantitative data evidenced in the number of registrations for technology workshops, the frequency of computer lab scheduling requests, and budget increases for software, hardware, and peripherals as evidence that teacher's have a desire to adopt technology-supported instructional practices in their classrooms.

The School District's statement on the SPN Portal concludes, "These sources of local information, adopted Pennsylvania Academic Standards, and the advent of the Information Age demonstrate the need to increase our investment in technology-supported instructional equipment and materials."

School District B posted the process its team followed during the 2002 SPN Portal Communication Institute on the SPN regarding the school improvement project, COWS. The posting was divided into the following categories: The Problem, Design, Questions, Research Methods, Training Benchmarks, Accountability, Limitations and Citations.

#### School District B Problem.

The team explored during the institute the answers and solutions to their question, "How does increased access to technology hardware, software, peripherals, and Internet resources accompanied by teacher and student training improve the teaching and learning environment?" The team listed an additional six questions for consideration over their five day participation in the institute asking about: the relationship of laptops with Internet access to the use of technology as a tool for instruction; the relationship of these laptops to the affect on students acquisition of technology skills; the training needs for teachers; the training needs for students; and the technical support to maintain the program.

#### The Design.

Since the COWS project is a multi-year initiative, a specific timeline was prepared including training schedules

and benchmarks or accountability standards for central office administrators, building principals, and teachers. Baseline and quarterly data would be collected to compare changes in use of the computers and other materials, need for technology support, and when other supporting resources would be used. A pilot report was presented to the school board in the summer of 2003 that is not a part of this case study.

#### School District B Research Methods.

Both quantitative and qualitative data was collected to determine if student technology skills improved, if there were changes in the students' perceptions of benefits, detriment, and obstacles of technology supported instruction.

School District B acknowledged that there is little documented research to support the need to or benefit of increased access to technology in the classroom and that data collected from the pilot program will require subsequent investigation before the project can be generalized to other content and grade levels.

It was recognized that the school district teachers have "responsibilities to ensure that Pennsylvania Academic Standards are met and, therefore, the frequency of new

lessons and variety of resources piloted will be limited by the need to progress through the curriculum and adhere to the approved scope and sequence for each course."

The team acknowledged that not all teachers and students would be on the same skill mastery level with their peers in the use of computers and software in the classroom. It is difficult to "predict the rate at which competencies and understanding will be acquired". School District B quoted Michael Fullan in his book, *The New Meaning of Education Change*, that it is reasonable to expect an "implementation dip" as students (and teachers) learn in an electronic environment with new instructional materials and tools. All of the references cited by the school district dealt with the ideas of leadership in educational change.

Public School District B Project and School Performance.

Table 12

Public School District B Project and SPN's Indicators of Total School Performance

**Learning**

- Focus questions centered on how does the use of technology improve teaching and learning

- Benchmarks for success were made against high academic standards including Pennsylvania Academic Standards
- The success of the COWS project was not to be made without first considering the established curricular objectives
- The "learning" and mastery of skills for both the teachers and students were considered in setting the benchmarks

### **Results**

- Research was made to determine if there was a need for the a technology project
- Performance data was collected to design the implementation process
- The plan for professional development was based on research and observations
- All stakeholders: administrators, technology coordinators, and teachers have accountabilities
- The students will be assessed and evaluated in the changes in levels of computer skills and in attitudes toward this methodology

### **Resources**

- All stakeholders: administrators, technology coordinators, and teachers will participate in formal training sessions providing the basis for a strong leadership core
- School District B went beyond their own budget and received PA Department of Education financial support
- SPN and SPN Portal Communication Institute instruction and resources were used for the development of the process
- Information is shared on the SPN Portal

## **Culture**

- All citations listed by the school district made reference to leadership in educational change
- All stakeholders are being affected by the school improvement project
- All stakeholders have certain levels of responsibility and accountability to contribute to the initiative's success
- The professional development is ongoing and not just one time
- Plans made during the institute included the sharing of information via the SPN Portal

## **Partners**

- Continued involvement with SPN and SPN partners
- Increased confidence in the partnership/affiliation with Pennsylvania School Board Association
- Involved SPN, SPN partner schools and other schools in Technology Symposium
- Opportunities for new partnership with the National School Board Association

## Parochial School System

### Demographics.

The Parochial School System that participated in the SPN Portal Communication Institute enrolls students from

six Pennsylvania counties with one city being classified as urban and the rest rural covering a geographic area of approximately 3, 344 square miles. There are 20 elementary schools, two high schools, and three private schools (two Montessori and one special needs school). There are approximately 5,100 students in this parochial school system including almost 800 in the high school. This information was obtained from Parochial School System's Web site.

#### Project History Overview.

The Parochial School System has over the past several years attempted to "connect" its teachers with other school districts in the region, the state of Pennsylvania, the United States and beyond. As stated on the SPN Portal, this school system offers, "Internet access, networked, current technologies, software licensing, Online Training, LAN, WAN, tech support, and professional development," yet, it works in isolation somewhere within a four county area." "The Diocese (school system) is constantly looking for the quickest and most effective way to connect and share ideas as well as for a cost effective method of professional development that would be well received and embraced by teachers at large, according to the Diocesan Instructional

Technology Analyst. Over a two-year period, a study by the diocese was conducted of local schools' best practices including exemplary programs and lessons. A survey was distributed to all teachers with the results identifying the way technology was used within the classroom, the level of technology performance, and the level of student participation and engagement.

In April 2002, the Instructional Technology Analyst responded to an SPN Opportunity Alert and attended an SPN informational meeting about the SPN Portal Communication Institute. She discussed with SPN representatives the possibility of a teacher mentor program for the diocese and was enthusiastic to share the program on the SPN Portal. Institute and Portal Presentation

The school system sent a team of five individuals to the 2002 SPN Portal Communication Institute consisting of the Director of Technology and Government Programs, Instructional Technology Analyst, an elementary school technology coordinator, a high school principal, and an elementary school principal. Two individuals were from the central administration office and the other three participants were from schools located in different cities and counties within the school system.

The team posted the process it followed during the 2002 SPN Portal Communication Institute on the SPN Portal regarding the school improvement project, an Integrated Technology Professional Development Program. The posting was divided into the following categories: Program Goal, Implementation Plan and Process, Acceptable Use Policy, Summer Technology Workshop, Timeline, Web Resources, and Contact Information.

Program Goal.

The program goal was stated on the portal: to bring teachers together from the diocesan schools located in four counties to examine current research and best practices; to train teachers in the use and implementation of new content and application software; and to introduce and share technology integration ideas and lesson plans. The training was to be designed to enhance instruction of the specific content areas, encourage collegiality as teachers collaborate, and integrate content areas engaging learners in cooperation, high-level questioning, advanced thinking and decision-making, and product.

It was determined that the essential elements of this professional development model were a collaborative environment for networking and a mentor program Support

and accountability for this program was to be provided by the Government Programs Coordinator, technology coordinators in the schools, school principals under the direction of the Office of Schools. The plan established a forum for differentiated learning as teachers within the diocese recognize their individual learning curves, their strengths, and their needs in the areas of technology and technology integration across the curriculum.

#### Implementation Plan.

The implementation process for the school improvement project, an Integrated Technology Professional Development Program, started with a needs assessment, examination of the teacher information survey data, review of the state and national educational standards. The action plan included methods of evaluation to be used for future revisions and to assure viable continuity of the program.

#### Involvement of the Educational Community.

The diocesan team composed a letter addressed to parents, guardians, teachers, and staff outlining key components of the new school improvement project. The letter's text presented information about the project and its potential effects on the students and in relevant learning activities. It also contained specific

information about the acceptable use of the Internet in the school by students. Students and parents were asked to sign age appropriate pledges and/or permission forms indicating that guidelines would be followed.

#### Timeline.

A timeline was established to cover the period from July 2002 until August 2005. Included in the timeline was participation in the SPN Portal Communication Institute by the project leadership team. A Diocesan Summer Technology Workshop was held in late July 2002 with the session titles of Leveraging Technology to Enhance the Curriculum, Technology Leadership, and Tricks of the Trade (Information for Technology Mentors).

The teacher mentors meet on a monthly basis with their building teams. These meetings may be face-to-face, live in a synchronous discussion, or via a bulletin board asynchronous discussion. The Office of Schools Administration will meet quarterly with mentors and principals to discuss the progress of the instructional infusion, lessons learned, best practices shared, and additional resources needed including funding and professional development time.

In addition to the quarterly visits by the Office of Schools Administration, lead mentors in each building meet on a quarterly basis to evaluate the progress of the program, teachers, and students. Principals are observing at least one lesson per teacher per year with a technology component. There are forty teachers involved.

School administrators express an enthusiasm that after the first year of implementation the Integrated Technology Professional Development Program works. According to one administrator, "The teacher mentors work directly with the Office of Schools developing training guides for each new hardware, software, curricular or other initiatives." Another stated, "Teachers respect their peers and embrace the technology that enhances their curricula more readily with the on-going support of mentor teachers in their buildings. The teachers then mentor their students so the learning cycle is ongoing keeping up as much as possible with the pace of technology advancements.

Throughout the school year, communication with other SPN partner schools was maintained on an "almost monthly basis" especially with other portal institute participants. Over the summer months, it became an occasional e-mail or phone call. This parochial school system has continued to

pursue opportunities for communication and collaboration. It has visited School District B to observe the high school technology curriculum and met with School District B to explore their integrated distance education plans.

In addition, diocesan representatives attended workshops sponsored by another SPN partner school district partner regarding a school management system "that will facilitate the home to school connection." A visit was also made to another SPN partner school district to solicit information about the issuing of laptops to every teacher and student.

The school improvement project by this parochial school system is beginning its second year of implementation, the Diocese is still in the process of documenting and preparing a final report of the first phase. This initiative has only been shared outside of the school district via the SPN Portal and through conversations with SPN partners.

Technology training has been provided through a partnership with Duquesne University.

The Parochial School System has joined with the three public school districts that attended the 2002 SPN Portal Communication Institute to form the

The Parochial School System Project and School Performance.

Table 13

The Parochial School System Project and SPN's Indicators of Total School Performance

**Learning**

- The program goal focused on: the bringing together of teachers to examine current research and best practice; to train teachers to use technology; to share information and to enhance instruction using technology
- Benchmarks for success were made against high academic standards including Pennsylvania Academic Standards in Technology and national education standards
- Curricular objectives were first considered before the project was started
- The plan established a forum for differentiated "learning" and mastery of skills for teachers

**Results**

- A needs assessment was made and a teacher survey sent to determine if the Integrated Technology Professional Development Program was necessary and would the teachers be receptive to it
- Performance information was collected to assist in the design of the process
- Professional development plans were based on realistic expectation, research, state and national standards
- All stakeholders: central administrators, technology coordinators, principals, and teachers have accountabilities

- The students and parents were informed about the program changes and were informed about the expectations from them

### **Resources**

- The training and the mentor program capitalized on the resources available with the school system
- SPN and SPN Portal Communication Institute instruction and resources were used for the development of the process
- Information is shared on the SPN Portal
- Consistent communication is maintained with other SPN Partners
- Representatives are sent to workshops and make visits to bring back new information for the program
- Through a partnership with Duquesne University technology training is provided

### **Culture**

- Central administration, principals, technology coordinators, teachers, students, and parents are involved and affected by the school improvement project
- Responsibilities and accountabilities are assigned to administrators and teachers to contribute to the initiative's success
- The professional development is ongoing over a three year period
- Plans made during the institute included the sharing of information via the SPN Portal
- The parochial school system is moving beyond the isolation of its schools

**Partners**

- Strengthen ties with SPN and SPN partners through the Portal Communication Institute
- Communicate and collaborate on a regular basis with other SPN partners
- Opportunities through Duquesne University for training
- Teachers, students, and parents are building partnerships in through this initiative

## CHAPTER 5

### DISCUSSION

#### Introduction

This study focused on how the SPN Portal and 2002 SPN Portal Communication Institute have affected three school districts in Western Pennsylvania. The research examined how the design, development, and implementation of the SPN Portal maintained its fidelity to the mission of SPN and how the participants in the 2002 SPN Portal Communication Institute were affected by the goals of that mission while using the SPN Portal as a tool.

Twenty-seven questionnaires were distributed to participants in the 2002 institute and 20 completed questionnaires were returned. Fourteen individuals of whom ten had attended the institute participated in three focus group discussions about the SPN Portal and Communication Institute. Case studies were conducted of three of the four school districts that attended the 2002 institute. SPN documents and related materials were reviewed to gain information primarily about the plans for the design, development, and implementation of the SPN Portal.

## Research Results

The first question attempted to discover how the SPN Portal and Communication Institute, through the Portal's design, development, and implementation, have maintained a fidelity to and advanced SPN's mission. The effectiveness of the design and development of the SPN Portal was explored through observations of the institute participants, the discussion groups, and SPN documents. The assessment of the implementation of the SPN Portal was investigated principally through the observations of the 2002 SPN Portal Communication Institute participants and the results of the school improvement projects developed during the institute.

### SPN Portal

As stated in Chapter 1, the SPN Portal was envisioned as the primary mechanism for SPN partners to communicate and collaborate (Interview, July 31, 2003). The design of the SPN Portal, according to the original proposal, would provide the following: access into a Web site containing links to educational best practices with an interface designed to provide easy accessibility to additional information; discussion boards, threaded discussion groups, bulletin boards; utilities for the SPN to maintain the

information in the portal; capability for users to add "reviews" of information contained in the portal; capability for educators to post information to be shared (Information Technology Development Center, 2000).

### Design

Review of the SPN Portal contents and documents contained on it, indicate that the design of the SPN Portal is a communication and collaboration mechanism for SPN Partners. The homepage (Exhibit A) provides brief information and/or links to information about SPN events, its mission, how to become an SPN Partner, about SPN partners, and its Portal. The communication aspect of the Portal on the homepage primarily indicates one-way communication from SPN to its partners and the general Internet community. Also contained on the homepage as well as on every page of the SPN Portal is a link to the SPN Discussion Group. That is the link for SPN partners and other educators to engage in conversation about topics of interest in the pursuit of improving teaching and learning.

The research indicates that it is not enough to simply have a well-designed portal with all of the necessary communication components. Through the use of a questionnaire and small discussion groups, the research

indicates the majority of those involved in the study expressed the need for SPN to advertise the availability and utility of its Portal. Most of the respondents indicated that just saying the portal is available is not enough for some potential users, training is important for the SPN Portal and in the use of discussion groups.

The research indicates that the design of the portal is not the issue, but the functionality of the portal is. When asked about their personal use of the SPN Portal to access information, the majority of those answering the question stated that they had used it and cited examples of searching for materials on specific topics and information about other school districts. Discussion about the purpose of the SPN Portal implied that most of the participants understood that the portal is a communication and collaboration tool for both regional and national educators, a device to share ideas, and an opportunity to share current practices in Western Pennsylvania.

Question 16 of the first part of the questionnaire asked for the opinion of the portal institute participants as to the effects of the school improvement project on the students, thirty five percent (35%) indicated that increased effective communication between students and

teachers was one of the results. Questions 11 and 12 of the second part of the questionnaire asked participants if their school district had been contacted regarding the school improvement project. Only thirty percent (30%) indicated they had been contacted providing examples that the "connections" were made through conversations and presentations with SPN, SPN partners, and Duquesne University.

The responses to question 1 of the second part of the questionnaire provided the strongest indication that communication has improved within the school district teams and by the team with SPN. Sixty five percent (65%) of the responses indicated that there was a noticeable systematic change. The 2002 SPN Portal Communication Institute and portal presentation of the project was cited by fifty-five percent (55%) of the responders to question 8 in the first section of the questionnaire as having a direct effect on their teams' school improvement project and its presentation on the SPN Portal. Examples listed in responses to question 13 included: the involvement of the teachers is noticeably high because of their involvement in the institute and developing the project from the very beginning; and both administrators and teachers were

involved in the retreat, the institute, and were responsible for the project throughout the institute. Question 14 regarding the affects on the teachers and administrators as a result of the project received the response almost three fourths of the time that the institute was successful because "all" of the key people were involved.

In each of the three focus group discussions, the question was asked, "Do you use the SPN Portal?" Group 2 strongly stated that they routinely used the portal and encouraged the teachers in their school districts to do as well. Upon further examination, it was discovered that this school district has contacted other SPN partners via the portal, corresponded through e-mails, participated in face-to-face conversations, and attended various workshops sponsored by other school districts for their teachers as a result of communication generated via the SPN Portal.

Group 1 implied that the portal had been used by some of the members only in response to being asked to participate in this study. Other group members had not used it. Group 3 had used it as it related to their specific school improvement project including the

investigation as to how their project looked in relation to the other school districts.

When asked, the rather generic, question 19, "Does your school district collaborate with another school district or another partner on a regular basis," about half of the participants responded they had. In response to question 20 in what ways does your school district collaborate, the responses indicated that collaboration had occurred with SPN and Duquesne University. However, when asked in questions 21 and 22 about the school district's collaboration with another school district or another partner on the project prepared during the SPN Portal Communication Institute, the sixty percent (60%) responses included SPN, Duquesne University, other school districts, other education agencies, and professional organizations.

#### Development

It is through the development of the SPN Portal as a tool that the mission to connect educators with resources and ideas is noted. All of the participants in the SPN Portal Communication Institute indicated that they had "used" the Portal in various ways to access information, to conduct research, to contact other SPN Partners, and to simply find out what was on it. The strongest indicator

of the actual use of the SPN Portal is in connection with involvement in the 2002 SPN Portal Communication Institute. Two of the three discussion groups focused on their respective school improvement projects and their optimism for getting responses back from other school district partners. They implied that the project presented on the SPN Portal not only had the potential for increased dialogue, but that in two of the three school districts discussions about the respective school improvement projects had occurred.

There was also an indication that some participants in the focus discussion groups may not use the SPN Portal and two principal reasons were identified. "Unless I know that I will find what I am looking for, I don't have the time just to browse," stated one superintendent during a focus group discussion. The "need to know" and the "need for training" were common ideas regarding the development of the SPN Portal as a communication and collaboration tool.

Discussion group question 8 centered on the participants' reflections regarding the use of the SPN Portal for sharing other school improvement projects and how the portal might be used to promote them. The majority, twelve of the fourteen, responded optimistically

that the portal has the potential to communicate these school improvement ideas and to promote collaboration. Two persons indicated a reluctance to accept this potential as fact, stating that it will take more training to get other educators involved and that just putting technology in the hands of teachers is not enough.

All three of the discussion groups made comment about the need for formalized training before Discussion Groups may have any margin of success in a similar fashion as to the discussion about the portal itself. Reference was made to the training and the information presented during the institute. Comments about the institute indicated there was a sufficient number of persons, close to two-thirds of the group, had never participated in an online discussion before the institute. When asked about their reluctance to participate in an SPN Discussion Group, the majority indicated a lack of training as to how to do it and unfamiliarity with the technique. There were also individuals, a minority in two of the discussion groups, expressed a familiarity with online discussions because of their undergraduate training.

There are indications that the development in the use of the SPN Discussion Groups as a tool for personal

communication has not kept pace with the advances by institute participants in the development of the SPN Portal as a tool for sharing ideas. None of the participants from the SPN Portal Communication Institute have participated in an SPN Group Discussion and none of those in the study who had not attended the institute had participated in one. However, comments were made that several individuals had gone on the SPN Portal and looked at the Discussion Group questions.

Discussion questions 10 and 11 concentrated on the use of SPN Discussion Groups. Some of the institute participants focused on the online discussions that were part of the institute citing that they enjoyed the experiences. Four primary reasons given for lack of participation in the SPN Discussion Groups as presented in Chapter 4 were:

1. Reluctance to represent school districts alone
2. Lack of knowledge as to how to participate and a need for training
3. Limited availability of time to learn and to participate
4. Need for SPN "to advertise" that the SPN Discussion Groups are available.

## Implementation

Responses to discussion question 15 demonstrated the relationship between SPN and the actual accomplishment of the SPN Portal as a vehicle to advance the SPN mission to lead educational change by connecting educators in schools with resources and ideas to improve teaching and learning. One group participant summed up the SPN mission as giving educators a chance to exchange ideas and gain new perspectives as to how to improve teaching and learning by using the SPN Portal. Another person indicated that communication via the portal establishes a common medium by which various districts may collaborate without regard to distance, time, and limited resources.

The implementation of the SPN Portal as the "primary mechanism for communication and collaboration " (Interview, July 23, 2003) for SPN partners may become a reality when the answer to the first discussion question and questions 7 and 8 of the first part of the questionnaire are answered in the affirmative. Yes, the SPN Portal has been used to access information about issues of importance by communication with SPN partners and other educational organizations and for professional development.

The responses to questions 1, 2, 8, and 9 of this section indicate that the results of the institute have a direct effect on the use of the SPN Portal as a tool to present school improvement projects successfully. Eighty percent (80%) of the educators expressed that the presentation of their school improvement projects exceeded expectation, because they understood what was being asked of them and they worked as a team representing their school district. Fifty-five percent (55%) of the respondents indicated that the use of the SPN Portal had an effect on their project idea, the implementation of the project.

#### SPN Portal Communication Institute

The second part of the first question, addressed by this study, pertains to the 2002 SPN Portal Communication Institute as it supported the SPN mission through its design, development, and implementations.

#### Design

The second section of the questionnaire dealt primarily with the training results of the 2002 SPN Portal Communication Institute. The majority of participants indicated that the results of the training gave them a better understanding of the SPN Portal as a tool, a resource for connections, and a vehicle for communication

and collaboration. A little more than one third of the respondents highlighted the fact that the institute provided time and direction for the teams to work together.

Question 4 asked the participants for their reflections regarding the training. There was no one answer that indicated a strong group sentiment, however, the answers indicated that the training was flexible, met the needs of the individual school districts, and the most frequent answer was that it reflected the design established by the school districts.

#### Development

The future implication of the SPN Portal Communication Institute may best have been seen in the responses to questions 9 and 10 in the first section of the questionnaire. The majority of responses indicated that the SPN Portal has not been used as a professional development tool. Responses to question 11 and 12 indicate that the majority of school districts have not been contacted regarding the school improvement projects. The results of focus group discussion question 8 and 9 may provide some insights as to why contact has not been made beyond SPN and other institute participating school districts. The future development of the SPN Portal

Communication Institutes, as indicated by the study's results, focuses on these key factors: the exposure of educators to the SPN Portal through marketing and advertisement; the necessity for training to use the SPN Portal and to successfully participate in the SPN Discussion Groups; and the appeal by SPN educators to see their own school improvement projects on the portal as well as the projects of other SPN partners.

### Implementation

The implementation or practical effect of the SPN Portal Communication Institute is that it was successful in producing products that exceeded the expectations of the participants. Eighty percent (80%) indicated that the presentation on the SPN Portal exceeded their expectations. One half implied that the project presentations exceeded expectations as a result of the training during the institute while thirty percent (30%) indicated that the presentation exceeded expectations because the project exceeded expectations. The reasons for the success of the projects varied but included: the engagement of the educators in setting the projects goals; the team effort of involving administrators and teachers on the common

project; and the importance of the projects as identified in the case studies.

#### Advancement of SPN's Mission

The second research question sought to gain information as to how the 2002 SPN Communication Institute advanced SPN's mission in three areas: through the engagement of educators in the establishment of goals for their own on-going education; through school district improvement projects developed during the institute; and through the sharing of resources and ideas via the SPN Portal with SPN Partners and other educators in the Western Pennsylvania region.

#### Engagement of Educators in Establishment of Goals

The examination of the case studies provided the clearest indicators about the engagement of educators in the establishment of their goals for their own on-going education. The use of the case study method explored the institute's conformance with the SPN Mission as it attempted to provide a mechanism for educators to communicate with one another, to retrieve and create information, and to transfer and share projects, programs, and ideas (About School Performance Network).

The first case study involved Public School District A that actually pursued two school improvement projects during the institute. The two projects dealt with the development of online courses. The team decided to change the focus of their institute work from the development of a course creating electronic portfolios for high school students to the concept of a hybrid school. It was the team that established its new goal.

The teachers in attendance at the institute were provided with the opportunity to meet with representatives of the Duquesne University's Instruction Technology Program in the School of Education. It was a mutual agreement by the teachers and administrators for seven teachers to enroll in the Distance Education Program. Because of the connections made at the SPN Communication Portal a partnership was developed between Public School District A and Duquesne University.

Through the school improvement project developed by Public School District A, all school district staff have the opportunity to participate in professional development programs to advance their skills in the use of technology and in the development of online courses to become a part of the 2005 school district curriculum. Individual

teachers have the option and the opportunity to become lead learners as they involve other teachers in the school improvement project.

The second case study of Public School District B presents research on a school district that had already begun to lay the plans for their school improvement project prior to the SPN Portal Communication Institute by seeking financial support in 2000 from the Pennsylvania Department of Education for technology infusion into the curriculum (About School Performance Network). The SPN Portal Communication Institute provided the opportunity for this school district to develop its plans to introduce mobile computer labs to its teachers and students. A professional development program was developed during the institute for the ongoing training needs of the school district for the introduction of the mobile computer labs and the plans for technology infusion into the curriculum.

The SPN Portal Communication Institute had little influence on the engagement of that particular school district's educators in the establishment of goals for their own on-going education. Some of the teachers from the Parochial School System took the initiative after the institute to contact Public School District B to visit

their schools to see the infusion of technology into the curriculum and then to establish their own goals for their continuing education plans and for recommendations for others within their school system. The Parochial School System is using mobile computer labs.

The Parochial School System team, as documented in Chapter 4, is a part of a school system geographically is isolated covering 3, 344 square miles. The system has 20 elementary schools and 2 high school with an enrollment of approximately 5, 100 students. The case study revealed an expressed need for the school system to improve communication within its system and to provide teachers with training to successfully integrate technology into the total curriculum.

The Parochial School System team used the SPN Portal Communication Institute to devise their training strategies for all of the school systems' teachers and administrators including the team itself. They established their own goals for their on-going education while assuming responsibility for the professional development of the entire school system.

Two of the three case studies demonstrated how SPN furthered its mission to connect educators in schools with

resources and ideas to improve teaching and learning through the engagement of educators in the establishment of their own on-going education. Both Public School A and the Parochial School System have teachers enrolled in Duquesne University's Instruction Technology Program as a direct result of the connections made by the educators during the 2002 SPN Portal Communication Institute.

#### School District Improvement Projects

One of the key objectives of the SPN Portal Communication Institute is to provide instruction, materials, and facilities for the development of school improvement projects or programs by school district teams (About School Performance Network). All three of the school districts involved in this study came to the institute with the idea of a school improvement project based on an identified need in each respective school district as demonstrated in Chapter 4. Public School District A modified its original plans during the institute, however, the identified need was still valid for the new project.

Public School District A through the SPN Portal Communication Institute helped SPN fulfill its mission to lead educational change by connecting educators in schools

with resources and ideas to improve teaching and learning. Public School District A made connections with other school districts, with Duquesne University, the Pittsburgh Technology Council, and the Beaver Valley Intermediate Unit. Through its partnership with Duquesne University educational resources are shared. The SPN Portal Communication Institute provided the impetus and the resources to encourage Public School District A to adopt its school improvement project to introduce a "Hybrid School" into its system.

Public School District B acknowledges that through the SPN Portal Communication Institute, its team had the time and the resources to pursue its plans for the infusion of technology into the curriculum with its mobile computer lab project. Because of the success of this school improvement project, Public School District B gained state and national recognition. Other than, the parochial school system contacting and visiting Public School System B, there is no other indication that any connections were made because of the project with other SPN partners.

The scope of the school improvement project and its significance provided the school district with state and national recognition. Public School District B and the

Pennsylvania School Board Association sponsored a symposium on the use of technology in the curriculum, the School Performance Network was invited to present at the symposium.

The Parochial School System's school improvement project has met its objectives by connecting the educators in the schools with one another and by developing a viable teacher mentor program. This team uses the information gained from the 2002 SPN Portal Communication Institute acknowledging the use of the SPN Portal for gathering information about school improvement issues, the use of the portal to contact SPN partners for information and about specific projects, and to share their own professional development ideas within their school system. The school system formed partnerships with other SPN school districts and with Duquesne University as a result of its involvement in the SPN Portal Communication Institute.

#### Sharing of Resources and Ideas

Public School District A, through affiliation with SPN and in particular participation in the 2002 SPN Portal Communication Institute, has shared information about its plans for a Hybrid School via the SPN Portal and in formal presentations for SPN. As previously noted, Public School

District A has formed partnerships with school districts, educational and professional organization in the Western Pennsylvania region.

Public School District B, through affiliation with SPN and in particular because of the prominence of its school improvement project developed during the 2002 SPN Portal Communication Institute, has developed affiliations with state and national educational organizations.

The Parochial School System has strengthened, through its involvement in the SPN Portal Communication Institute, its professional affiliations with SPN school districts partners both those attending the institute and those who have not as well as entered into a partnership with Duquesne University School of Education Instructional Technology Program.

#### Summary of Results

The data collected by the questionnaire, focus discussion groups, review of SPN documents and materials, and case studies of three school district school improvement projects indicate:

- The SPN Portal is being used to connect educators with resources and ideas to improve teaching and learning

- Some teachers are using the SPN Portal to gain information from other SPN partners about specific school improvement projects and ideas
- Some SPN Partners are contacting one another via the SPN Portal
- The three school districts participating in this study have developed their school improvement projects following the five indicators of total performance schools: learning, results, resources, culture, and partners

#### Users of the SPN Portal

The SPN Portal is being used as it was intended to be by Parochial School System that participated in this research. There are indications that a cultural change is beginning to develop as an entire system is introduced to the SPN Portal and is using it for communication and collaboration within the school system and within SPN. The leaders, the 2002 SPN Portal Communication Institute participants from this school system, have incorporated in their professional development plans for teachers, information and training about the use of the SPN Portal. As stated by one member of this school system, "The purpose

of the (SPN) portal is the same as for SPN, to network teachers in the schools with each other."

The vision for the SPN Portal was that it serves as "the primary mechanism for SPN partners to communicate and collaborate" (Interview, July 31, 2003). The representatives from the Parochial School System participating in this study have stated that the SPN Portal is used to research information about particular school improvement issues. The use of the SPN Portal, however, does not stop simply as a research tool. For additional regional information, SPN Partners are contacted based on the list found on the SPN Portal on a variety of topics. Communication with other school districts is usually made via e-mail and phone calls, not through the SPN Discussion Groups. This school system has not only engaged in conversation with other SPN Partners, but has actually attended workshops sponsored by other SPN Partners. Through invitation, resources have been shared and ideas exchanged toward the pursuit of school improvement in teaching and learning.

Both study participants from Public School District A and Public School District B acknowledge limited use of the SPN Portal. Public School District A has been contacted by

other SPN school districts for specific information about their "Hybrid School" project. Public School District A has met with other SPN school districts sharing their information and developing partnerships. Public School District B has not been contacted to the same extent as Public School District A has about their specific school improvement project.

The Parochial School System expressed a need to increase communication within the school system and with other school districts in Western Pennsylvania. The school system team participants indicated a sense of isolation from other school districts because of geographic location and limited resources. The SPN Portal minimizes the isolation providing 24/7 accessibility to resources and the availability to communicate with other school districts.

Public School District A acknowledges there is a need to develop partnerships and to take advantage of other resources to move their school improvement project forward. Their "Hybrid School" project is exploring innovative ideas to improve teaching and learning. They are pioneers in this Western Pennsylvania region moving forward with this initiative.

Public School District A had a well-defined project meeting a specific need within the district as they began involvement in the 2002 SPN Portal Communication Institute. There was not a need to make connections with other school districts, educational agencies, or professional organizations to enhance their school improvement project, the infusion of technology into the classroom using mobile computer labs. Public School District A has not contacted other SPN partners to advance their school improvement project and had only been contacted by one of school district (the parochial system that had participated in the 2002 institute).

#### Discussion Group Participation

The data collected principally through the focus group discussion indicates the educators in this study are apprehensive about participating in the discussion group

#### Limitations of the Study

#### Survey Instrument

There was not a published survey instrument available to measure the effects of the use of a portal on K-12 educators. The researcher prepared the questionnaire as a course project for an independent graduate seminar on research instrument design. It was examined by the

instructor and other participants in the course and was rewritten based on the suggestions offered by this group.

Four K-12 educators, not involved with the SPN Portal Communication Institute, conducted a pilot study to determine the validity and reliability of the questionnaire and proposed group discussion questions.

#### Sampling Procedure

Participants in this study were not randomly selected. There were 27 participants in the 2002 SPN Portal Communication Institute. All 27 participants were contacted. Twenty agreed to participate in the study and were sent a questionnaire. All 20 sent back the completed questionnaire.

All 20 of the questionnaire recipients were invited to participate small group discussions at a time and place convenient to them. Ten of the 20 agreed to participate. Two of the discussion groups were conducted in a face-to-face situation and the third via a conference phone call. Four others, not involved in the SPN Portal Communication Institute, were invited by school administrators to participate in the focus group discussions.

## Case Studies

The restriction placed on the researcher by one of the school districts to conceal its identity in some respects limited the credibility of the case studies. Every attempt was made to present the findings as accurately as possible without compromising the identity of the school district.

## Conclusions

- The design of the SPN Portal promotes SPN's Mission "to connect educators with resources and ideas to improve teaching and learning resulting in a change of the culture of education in South Western Pennsylvania."
- The limited use of the SPN Portal, especially as examined through the Discussion Groups, may not be attributed to a design flaw in the SPN Portal
- The development of the portal is in keeping with the vision that it be a mechanism for communication and collaboration for SPN's partners
- The implementation and sustained use of the SPN Portal as indicated by the results of this study is directly influenced by the limited marketing and advertising of it

- The implementation of the Discussion Group participants to improve communication and collaboration with SPN partners is influenced by the limited marketing and advertising of it
- A significant number of the educators involved in this study indicate that educators need training in the use of the SPN Portal and its Discussion Groups
- The SPN Portal, through connecting educators with resources, has encouraged educators to become engaged in the establishment of goals for their own on-going education
- Through school improvement projects educators are connected with resources and ideas to improve teaching and learning
- Through the sharing of resources and ideas, via the SPN Portal, educators are being connected with other school districts, educational and professional organizations in Western Pennsylvania and beyond
- Two recommendations for the further implementation of the SPN Portal, identified by educators in this study, are the need for training specifically about the Portal as a tool and for a marketing strategy to

promote the Portal as a communication and collaboration mechanism

#### Recommendations for Future Study

The Heinz Endowments created the School Performance Network and provided the original idea for the SPN Portal as a primary mechanism for communication and collaboration. A recommendation for further research is the study of what initiatives other private philanthropic organizations have started to advance communication and collaboration among schools and school districts using technology.

The results of this study indicate that the success of the SPN Portal as a communication and collaboration tool is contingent on the exposure to educators of its existence through advertising and marketing. A recommendation for further study is to explore the effects of advertising on educators in the increased use of technology as a professional tool to advance school improvement and the effects on the culture of education.

This research revealed hesitancy on the part of educators to participate in the SPN Group Discussions, because they did not want to be perceived as the spokespersons from their school district/school systems on a particular subject. Further study may prove valuable in

this area to determine, if this reluctance to participate in an online discussion involves more educators and, if its effects are only in the online environment or in other presentations.

The School Performance Network is only three years in operation and the SPN Portal is only fully functional for a little longer than one year. Further study would be recommended to see the effects of School Performance Network as an organization after five years of existence as well as additional study of the SPN Portal and its Communication Institutes.

An investigation of the school improvement projects of each of 2002 SPN Portal Communication Institute participating public school districts and the parochial school systems is recommended for future study.

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## Appendixes

Appendix A: SPN Portal Homepage

# School Performance Network Homepage 2003

The screenshot shows a web browser window with the following elements:

- Browser Title Bar:** "Skip site navigation"
- Header:** "School Performance Network" logo on the left, a search bar with a "GO" button in the center, and "Site Map" and "SPN Discussion Group" links on the right.
- Main Content Area:**
  - Left Column (Green background):**
    - Welcome** to the School Performance Network (SPN) Portal.
    - The SPN Portal** is a gateway for educators to share information and resources, and to collaborate in the improvement of teaching and learning.
    - The value of the SPN Portal is dependent upon content contributions by SPN's partners: school districts, higher education institutions, and community organization.
    - The School Performance Network Mission:** To lead educational change by connecting educators in schools with resources and ideas.
    - SPN School District Partners**
    - How to become an SPN School District Partner**
  - Center Column (White background):**
    - School Performance Network is guided by **Indicators of High-Performance Schools** (*Learning, Results, Resources, Culture, Partners*)
    - > Learning** (Purple box): Schools establish high standards for teaching and learning
    - > Results** (Green box): Performance data drives school improvement
    - > Resources** (Orange box): Resources used collaboratively and strategically to enhance learning
    - > Culture** (Blue box): Knowledge expands through collective effort, creativity, and accountability
    - > Partners** (Red box): Collaborations extend opportunities to improve teaching and learning
    - > Highlights** (Yellow box):
      - Newsletter**
        - [SPN Connections](#)
      - In the News**
        - [SPN Cited in U.S. Congressional Record](#)
      - Opportunity Alert**
        - [\\* SPN Fall Forum Registration](#)
        - [\\* SPN Fall Forum Program](#)
        - [\\* Funds Available to Implement Cognitive Tutor](#)
  - Right Column (White background):**
    - 
    - School Performance Network educators exchanging information to help improve teaching and learning.

Appendix B - Research Questionnaire

## Research Questionnaire

School Performance Network (SPN) Portal Communication  
Institute

### I. Project Presentation

1. Did the presentation of your school district's school improvement project on the SPN Portal meet your expectations?
2. In what way(s), if any, did the presentation of your school district's school improvement project on the SPN Portal meet your expectations?
3. What were your anticipated needs for your school improvement project? Did these needs remain constant? If they changed, please specify in what ways.
4. Did your project meet the anticipated need in your school district?
5. In what way(s), if any did your project meet the anticipated need in your school district?
6. When was your school improvement project presented in your school district?
7. How was your school improvement project presented in your school district?

8. Did the use of the SPN Portal affect the presentation of your project idea?
9. In what way(s), if any, did the use of the SPN Portal affect the presentation of your project idea?
10. How many teachers in your school district were trained using this presentation? What grade levels were affected?
11. How many schools in your school district were involved in this school improvement project?
12. How many students in your school district are directly affected by the results of the school improvement project?
13. Did your project have an effect on the teachers and administrators in your school district?
14. In your opinion, what, if any, are the affects on the teachers and administrators in your school district by the results of the project?
15. Did you project have an effect on the students in your school district?
16. In your opinion, what, if any, are the affects of the project on the students in your school district?
17. How us your school district measuring the results of this project?

18. Who is responsible for the implementation of the project?
19. Does your school district collaborate with another school district or another partner on a regular basis regarding the school improvement project?
20. In what way(s), if any, has your school district collaborated with another school district or another partner regarding the school improvement project?
21. Has your school district collaborated with another school district or another partner on the project prepared during the SPN Portal Communication Institute? If so, with whom?
22. In what way(s), if any, has your school district collaborated with another school district or another partner on the project prepared during the SPN Portal Communication Institute?
23. Has your school district shared this project with other school districts? If so, with whom?
24. In what way(s), if any, has your school district shared this project with other school districts?

## II. Training Results

1. What, if any, are the results of your participation in the SPN Portal Communication Institute?
2. Did you use the material presented during those five days professionally?
3. In what way(s), if any, did you use the material presented during the Institute professionally?
4. What, if any, are your reflections regarding the training?
5. Has your understanding of the use of the SPN Portal changed since attending the Institute?
6. In what way(s), if any, has your understanding of the use of the SPN Portal changed since attending the Institute?
7. Have you used the SPN Portal to access information?
8. In what way(s), if any, have you used the SPN Portal to access information? What types of information did you access?
9. Has your school district used the SPN Portal as a tool for professional development of teachers?
10. In what way(s), if any, has your school district used the SPN Portal as a tool for professional development?

11. Has your school district been contacted regarding your school improvement project?
12. In what way(s), if any, has your school district been contacted regarding your school improvement project?
13. Can the SPN Portal be used for future school improvement in your school district?
14. In what way(s), if any, can the SPN Portal be used for future school improvement projects in your school district?
15. Have you participated in the SPN Portal Discussion Groups?
16. In what way(s), if any, have you participated in an SPN Portal Discussion Group?
17. Has your school district monitored questions on the SPN Portal Discussion Group?
18. Has your school district sponsored an electronic forum on the SPN Portal?
19. Does your school district have plans to sponsor an electronic forum on the SPN Portal?
20. What, if any, are your school districts plan(s) to sponsor an electronic forum on the SPN Portal?

21. What other observations, if any, do you have regarding the SPN Portal?
22. What effect(s), if any, has the use of the SPN Portal had in your school district?
23. What effect(s), if any, has the SPN had on your school district regarding the improvement of teaching and learning?
24. What effect(s), if any, has the use of the SPN Portal had on you professionally?

Appendix C: Letter to Participants

Dear School Performance Network Partner:

This letter is a request for your assistance with a research project. The purpose of the project is to evaluate the design, development, and implementation of the School Performance Network and Communication Institute to determine: the effectiveness of the SPN Portal as a communication and collaborative tool to engage educators in their education process and in encouraging the sharing of regional best practices or proved successful practice to improve teaching and learning; and its fidelity to SPN's mission to connect educators with one another, to resources and ideas to improve teaching and learning. This is my doctoral dissertation project and I will greatly appreciate your input.

You are receiving this questionnaire because your school district is an SPN Partner and you participated in an advisory capacity regarding the content design of the SPN Portal and planning for the training in the use of the SPN Portal through the SPN Portal Communication Institute.

Your assistance with this project is most appreciated. You may complete the questionnaire either

online (URL:

<http://www.schoolperformance.org/questionnaire/KocianCrame.html>) or by submission of a hard copy (see

attached). Please only complete one questionnaire in the format of your choosing. Your responses will remain anonymous. Please complete the questionnaire and submit as directed Online or send a hard copy in the enclosed envelope to the School Performance Network by June 1, 2003. Thank you.

Sincerely,

Josephine Kocian Crame  
School Performance Network  
Project Manager

Enclosure

Appendix D - Consent Form



DUQUESNE UNIVERSITY  
600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

**CONSENT TO PARTICIPATE IN A RESEARCH STUDY**

**TITLE:** An Evaluation of the Design, Development, and Implementation of the School Performance Network Portal and Communication Institute

**INVESTIGATOR:** Josephine Kocian Crame  
425 Sixth Avenue Suite 2650  
Pittsburgh, PA 15219-1819  
  
412-201-7407

**ADVISOR:** Dr. William P. Barone, Chair of the Department of instruction and Leadership, School of Education, Duquesne University, 412-396-6111

**SOURCE OF SUPPORT:** This study is being performed as partial fulfillment of the requirements for the doctoral degree in Instruction and Leadership at Duquesne University.

**PURPOSE:** You are being asked to participate in a research project that seeks to investigate the design, development, and implementation of the School Performance Network (SPN) Portal and Communication Institute. Some participants will be asked to participate in a small group discussion.

These are the only requests that will be made of you.

**RISKS AND BENEFITS:**

There are no perceived risks to participating in this study since your name will not be identified with any of the information you provide. The benefits to this study are: your contribution to the body of knowledge in the use of educators portals to improve teaching and learning; information about the SPN Portal and Communication Institute in its formative will assist SPN in future decisions about its use.

**COMPENSATION:**

There will be no compensation for your participation in this study. However, participation in the project will require no monetary cost to you. An envelope is provided for return of your questionnaire to the investigator.

**CONFIDENTIALITY:**

Your name will never appear on any questionnaire or research instruments. No identity will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. All online materials will be stored on a secure server. Your responses will only appear in statistical data summaries. All materials will be destroyed at the completion of the research.

**RIGHT TO WITHDRAW:**

You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time.

**SUMMARY OF RESULTS:**

A summary of the results of this research will be supplied to you, at no cost, upon request, after completion of the study.

**VOLUNTARY CONSENT:**

I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

\_\_\_\_\_ I agree to participate

\_\_\_\_\_ I do not agree to participate

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Researcher's Signature

\_\_\_\_\_  
Date

Appendix E - Focus Group Discussion Questions

## Focus Group Discussion Questions

1. Do you use the SPN Portal?
2. In what way(s), if any, have you used the SPN Portal?
3. What is your understanding of the purpose of the SPN Portal?
4. Has your school district considered sending a team to participate in the SPN Portal Communication Institute?  
Has your school district sent a team to the SPN Communication Institute?
5. What project would your school district want to develop and present through the SPN Portal Communication Institute? What project has your school district presented on the SPN Portal? Follow up question: Do you have plans to replicate any of the school improvement project ideas presented by other school districts on the SPN Portal? Why?
6. Has your school district team been contacted regarding participation in an SPN Portal Communication Institute? How were you contacted to participate in the institute?
7. In what way(s), if any, has your school district been contacted regarding participation in an SPN Portal Communication Institute?

8. Do you think that the SPN Portal can be used for school improvement projects? How have you used the portal to promote school improvement projects?
9. In what way(s), if any, can the SPN Portal be used for future school improvement projects in your school district?
10. Have you participated in an SPN Discussion group?
11. In what way(s), if any, did you participate in an SPN Discussion Group?
12. What other observations, if any, do you have about the SPN Portal?
13. Are you familiar with the School Performance Network indicators of successful high performance schools?  
(Learning, Results, Resources, Culture, and Partners)
14. In what way(s) do you think that the SPN Portal reflects these indicators?
15. Do you think that the SPN Portal is or has the potential to be an efficient tool to promote communication and collaboration for K-12 educators?

Appendix F: 2002 SPN Portal Communication Institute Agenda

## School Performance Network

### 2002 Portal Communication Institute

#### Institute Description

The School Performance Network (SPN) Portal Communication Institute has a two-fold purpose: the development of a school improvement project and orientation to the use of the SPN Portal as a communication and collaboration tool.

#### **Day 1**

1. Introduction of the School Performance Network and the SPN Portal
2. Introduction of School District Teams
3. Projects - Online Portal Presentations- Concept of Cooperative Learning Teams
4. Project Based Learning - Project Development via the SPN Portal
5. Cross-District Sharing - Advancing Professional - What Works?
6. Team Project Idea Exchange - Cross District Sharing
7. Internet Resources Available Via the SPN Portal
8. Project Development - Individual School District Team Work - Establish Strategy - Goals-Work Schedule
9. Day review and Preview for the Next Day
10. Project Development Lab Time

#### **Day 2**

1. Cross District Sharing
2. Best practice Model - Building a Community of Learners
3. Description of Tools (For example: Discussion Groups, structured chats, electronic forums)
4. Project Development - Individual School District Team Work
5. Online Teaching and Learning -Practical experiences - Netiquette
6. Online Discussions
7. Day Review and Preview for Next Day
8. Project Development Lab Time

**Day 3**

1. Cross District Sharing
2. Resources Sharing for Specific Projects
3. Online Discussion Exercises
4. Project Development - Individual School District Team Work
5. "SPN Group Discussions" - Online Group Moderation-Facilitation Skills
6. Day Review and Preview for Next Day
7. Project Development Lab Time

**Day 4**

1. Cross District Sharing
2. Project Development Lab Time
3. Online Portal Presentations Preparation
4. Project Demonstrations
5. Electronic Forum
6. Discussion Board Responses
7. Day Review and Preview for Next Day
8. Project Presentation Lab Time

**Day 5**

1. Cross District Sharing
2. Online Portal Presentation Finishing Touches
3. Cross District Sharing of Projects
4. Portal Pages Demonstration
5. Implementation Processes in School Districts
6. SPN Resource Sharing
7. Debriefing - Resource Exchange
8. Where Do We Go From Here?
1. Evaluation