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Principals and Technology: A Case Study of the Use and Perceived Effectiveness of Technology to Communicate with Constituents

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Principals and Technology: A Case Study of the Use and Perceived Effectiveness of Technology to Communicate with Constituents

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DEDICATION

This work is dedicated to my husband, Bobby, who has been my companion throughout this long journey to fulfill my dream. He believed in me and supported my every venture for the past thirty-five years. He has been beside me with loving support, to push me, hold me up, to care for me as I struggled, to wipe away the tears and to give me laughter every day; he is the most wonderful man on earth.

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ABSTRACT

Principals and Technology: A Case Study of the Use and Perceived Effectiveness of Technology to Communicate with Constituents

Bonnie Ann Allman

Among the many qualities or attributes that serve as the framework for school leadership development programs, communication is repeatedly noted as being an important facet of the administrative leader's repertoire (Finch, Gregson & Faulkner, 1992; Gougeon, 1991). It is not enough for a leader to be concerned only about communicating with constituents; it is essential that the leader also considers the effectiveness of this communication (Gougeon, 1991). The consolidation of schools in West Virginia over the past forty years has placed more importance on the ability of a principal to communicate with staff, other administrators, students, parents and communities. Each consolidated school must reach a wider range of staff and a wider demographic range than the smaller one room school of yesterday. The relationship of the public school to the community and the role of the school in sustaining the community have also been a concern when consolidating. The wide ranges of media sources today offers community members the opportunity to share information and opinions through many types of tools, or even create their own media streams to communicate with a targeted audience (Conners, 2000). The 21st century has witnessed the rapid growth of Web 2.0 tools, which are especially helpful in the three areas of transforming communications: advocacy, networking, and collaboration. Networking through technology can form powerful alliances, connecting leaders and experts locally, nationally and internationally (Soulé, 2008). Valentine (1981) asserts that most principals spend approximately seventy-five percent of their days communicating with

constituents. Media and technology are converging with new methods of communication. The types of communication that are emerging will rapidly change the way in which we communicate with each other (Killian, 2009). This study provides information related to the methods of communication principals use with their constituencies and their perceived effectiveness of these methods. This information may assist those who prepare develop professional development programs that aid school leaders and develop coursework for 21st century principals in the area of communication.

CHAPTER ONE

INTRODUCTION, OVERVIEW, PROBLEM STATEMENT

Introduction

Among the many qualities or attributes that serve as the framework for school leadership development programs, communication is repeatedly noted as being an important facet of the administrative leader's repertoire (Gougeon, 1991; Finch, Gregson & Faulkner, 1992). It is not enough for a leader to be concerned only about communicating with constituents. It is essential that the leader considers the effectiveness of this communication (Gougeon, 1991). A free flow of clear, consistent, reliable, multi-directional information within an organization and its community minimizes intra-organizational problems and supports the relationship of the institution to the larger social context (Katz & Kahn, 1978). Given the important role of communication in leadership, the growing complexity of the principalship, and the development of many new communication tools, a case study of school communication fills an important need in the professional knowledge base.

Background

The nature of communication used in person-to-person exchanges is different from that used to deliver speeches or propaganda. Addressing a group of people with a speech involves sending a message to the receivers with very little, if any, feedback component whereas effective person-to-person interchanges depend on quality feedback. Feedback is defined as the flowing exchange of ideas and information which travels between the sender and receiver and allows both parties the opportunity to extract and clarify the information until both have a concurring understanding of the message (Pulley, 1975; Mistry et al., 2008; US Army, 2006).

It is this same phenomenon of feedback that school leaders must use to be effective communicators, not only to transmit their ideas and information but to also receive information simultaneously. Effective communication is an essential element to effective leadership, albeit often overlooked by school leaders (Horton, 1985; Soule, 2008). Finch et. Al, p. 66 (1992), Gougeon (1991) and Thomson (1993) all affirm that the quality and effectiveness of communication will have an influence on a principal's administration, in the development of programs, as well as in communicating values and motivating others.

The National Education Technology Standards for Administrators (NETS-A), provided by the International Society for Technology in Education (ISTE), Standard 3c also emphasizes that administrators "promote and model effective communication and collaboration among stakeholders using digital age tools" (ISTE, 2009, p.1).

Consolidation of Schools in West Virginia

The consolidation of schools in West Virginia over the past 40 years has placed more importance on the ability of a principal to communicate with staff, other administrators, students, parents and communities. Each consolidated school must reach a wider range of staff and a wider demographic range than the smaller one or two-room school of yesterday. The relationship of the public school to the community and the role of the school in sustaining the community has also been a concern when consolidating. Ilvento (1990) states that the public school is important to the rural community both socially and economically. Socially, schools in rural areas tend to be the only source of social activity. Economically, the school many times is the largest employer in a rural community. The school can also be the focus of many community activities as well as school activities. Ilvento stresses the importance of connecting the rural

school to the community through the curriculum and the need for flexibility in policies to meet local needs (Bard, Gardener & Wieland, 2006).

Communication in general is almost always listed as a vital aspect of the effective leader's repertoire (Finch, Gregson & Faulkner, 1992). More specifically, communication effectiveness appears to be an essential skill component which principals need to consistently communicate values from personal, official, and structural orientations (Gougeon, 1991). It is therefore imperative that school principals have knowledge of appropriate and effective communication behaviors and a repertoire of communication skills (Thomson, 1993).

As the leader of the school, it is the responsibility of the principal to communicate the language of the school and the values of the organization. The effective principal of today must be a leader who can communicate empathy, warmth, openness and the ability to explore new ideas. Horton (1985) describes effective communication as the give and take of an intelligent exchange of ideas through conversation and discussion. Howlette (1993) defines "effective communication as the ability to galvanize support, motivate people and persuade them to endorse and actively lobby for or against an action or issue" (p. 3). Communication involves sharing messages, ideas, or attitudes to produce understanding or shared meanings among people. It is these shared ideas and meanings that became important to the development of successful schools (Lewis, 1975).

Effective leadership is essential to every successful organization. Leaders collaboratively create a vision and establish a climate for people in the organization to reach the highest level of achievement. Additionally, effective leaders also communicate and work with others to achieve

the vision. They mobilize resources and promote collaborative activities among people in the organization to achieve the agreed upon goals (Moore, 2009B).

Media is a highly important part of a democratic society (Anderson, 2007; Moses, 2007). From the beginning of United States history, print media has played a central role in our society. New discoveries in science and technology - the radio in the early 1900s, television in the 1950s, and recently the Internet - have resulted in an even greater role for media. The media in a democratic society can alert the public to important events and problems, inform the public about social issues, serve as "watchdog," and hold public officials and institutions responsible for their actions (Anderson, 2007; Duffy, 2007). The wide ranges of media sources today offers community members the opportunity to share information and opinions through many types of tools or even create their own media streams to communicate with a targeted audience (Conners, 2000). The 20th century saw more advancement in communications than had been seen over the last 2,000 years combined. One of the most significant changes in education in recent years has been the universal availability of a range of information and communication technologies (ICT) at work, school, and most significantly, at home.

The 21st century has witnessed the rapid growth of Web 2.0 tools, which are especially helpful in the three areas of transforming communication: advocacy, networking, and collaboration. Networking through technology can form powerful alliances, connecting leaders and experts locally, nationally and internationally (Soulé, 2008). Brass and Krackhardt (1999) suggest that the social network aspects of leadership are equally as important as the human capital aspects of leadership.

Effective Communication and Effective School Leadership

The literature on school leadership is rife with references to the significance of communication in an organization and its effectiveness (Bjorklun,1991; Blasé & Kirby, 2000). Two of the most important aspects of a school's functioning - school climate and teacher performance - are directly influenced by the principal's ability to effectively communicate goals, vision and ideas that enhance growth and an orderly environment (Blasé & Kirby, 2000; Bossert et al., 1982, Heck, Larsen & Marcoulides, 1990; Heck & Marcoulides, 1993).

The essentialness of effective communication is arguably more important in Pre-kindergarten -12 school leadership than in many other professions. Schools have multiple venues in which maintaining operational communication is essential. There is the internal community which includes staff, students, and central office supervisors. Additionally, several external communities are equally important. Parents need to know that their children's schools are safe, providing high-quality educational services, and are offering a place open to their input. Businesses need to know that there will be an educated workforce available and the citizenry in general need to know that tax dollars are spent wisely (Thomson, 1993).

Effective communication from the principal must flow and travel in a multitude of directions to a variety of individuals throughout the day. Communication comes in a multitude of fashions from communication by telephone, face-to-face, letters, memos, e-mail, casual conversations, lectures, speeches and electronic devices. This free flow of information must support the relationship of the principal and the school to the larger society, both internally and outside the school building (Katz & Kahn, 1978; Lunenburg & Ornstein, 1991; Valentine, 1991).

Luthans (1973), Likert (1967), Mercer Human Resource Consulting (2003) and Whaley & Hegstrom (1992) all found that a principal's ability to use effective communications skills not only benefited the organization's reputation to those outside the organization, but was perhaps the most critical factor that affected employees' job satisfaction, even more so than pay. The studies showed employees felt more "empowerment" to pursue opportunities that produce happiness within the workplace because of the use of effective communication by their leaders. It is therefore imperative that school principals have knowledge of appropriate and effective communication behaviors, a repertoire of communication skills, and the motivation to behave in ways that are viewed as both appropriate and effective by interactants (Thomson, 1993).

Effective communication allows all parties involved, both inside and outside of the organization, to have a shared vision and a supportive culture that expand trust and respect. Teams, groups, parents, students, staff, boards of education and district and state administration can all communicate with purpose to help students achieve their full potential (Benjamin & Gard, 1993; Witherspoon 1998; Moore 2009A).

Evolution of School Leader Communication

The evolution of the nature of communication for a principal has vastly changed since the face-to-face conversations or handwritten letters of the early 19th century. The litany of communication tools for disbursing written information has included the Hectograph (gelatin method), the typewriter and carbon sheets, the Ditto Machine (spirit duplicator), the Mimeograph Machine (ink and cut stencil), the Xerox machine (photo copier), digital copy machines, and now high speed Internet with two-way written, visual, and audio capabilities. Lest one believe we are at the end of this change in communication capabilities, consider the evolution of the Internet

and related possibilities for sharing information. What began with e-mail and instant messaging has quickly evolved into Web 2.0 software that can generate a variety of communication methods. Communication tools for principals are rapidly moving into new and uncharted territories. Some examples of these tools are social networking, chat rooms, blogs, Wikis and virtual reality (Killian, 2009; Soule, 2008). The ability to have anywhere, anytime availability and to interconnect with anyone at any time will continue to challenge the communication capabilities and skills of the 21st century principal.

Summary

The use of technology applications has changed what is expected of a school administrator. DiPaola and Tshannen-Moran, p. 65, (2003) report that the top five significant changes for school administrators since 1998 were increased accountability, a greater focus on student test scores, more paperwork, less support from parents, and the expanded use of technology for managerial responsibilities.

It is clear that the accessibility of technology and the accompanying responsibilities have transformed the way administrators work. The use of informational databases, student-based learning programs, e-mail, and organizational tools can affect job effectiveness (Hopkins, 2006). One recent study of business managers reported that more than 65% of the respondents spent between one and three hours per day responding to electronic correspondence or directives (AST, 2006). Valentine (1981) indicates that most principals spend approximately 75% of their day communicating with teachers, students, parents, secretaries and other constituents. Media and technology are converging with new methods of communication. The types of

communication that are emerging will rapidly change the way we communicate with each other (Killian, 2009).

This transformation of the workplace is compounded by the changing responsibilities of the principal. With the advent of technologies that require or enable the school leader to respond electronically to a variety of constituents, the effective school administrator must possess a variety of technological skills. MacNeil and Delafield (1998) state that school principals must understand the importance of technology for improved school management as well as its implications for improved instruction.

A principal must have knowledge about appropriate and effective communication behaviors, the development of a repertoire of skills that encompass both appropriate and effective means of communicating, and motivation to behave in ways that are viewed as both appropriate and effective by interactants (Thomson, 1993). A principal's communication skills will not only include face-to-face activities of the day but both asynchronous (not occurring at the same time, without time limits) and synchronous (occurring or existing at the same time) communication. These will include activities such as e-mailing, whether person to person, or to designated groups such as teachers or listservs that which send communications to larger interested groups (21st Century Skills).

Although there are research studies defining the technology requirements for administrators and articles defining computer programs and applications, there is a dearth of research of the methods school leaders are using technology to communicate and their perceived effectiveness of these technologies to perform their job responsibilities. This study will add to the knowledge base by identifying which technological methods of communication principals are

using daily to communicate with their staffs, parents and other constituents, and which of these methods they perceive to be the most effective.

Statement of the Problem

Given the important role of communication in leadership, the growing complexity of the principalship, and the development of many new communication tools, a case study of school communication fills an important need in the professional knowledge base. As recently as 2007, a study revealed that only 93% of principals used e-mail and merely 30% had participated in an online community (Speak Up, 2007).

This study will provide information related to the methods of communication principals use to communicate with their constituencies and the perceived effectiveness of these methods. This information can be used by those who prepare school leaders for the 21st century by providing coursework and professional development in the area of effective communication.

Research Questions

RQ1. What technology-based method do West Virginia school administrators use the most often to communicate with school staff?

RQ2. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with school staff?

RQ3. What technology-based method do West Virginia school administrators use the most often to communicate with other administrators?

RQ4. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with other administrators?

RQ5. What technology-based method do West Virginia school administrators use the most often to communicate with parents?

RQ6. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with parents?

RQ7. What technology-based method do West Virginia school administrators use the most often to communicate with students?

RQ8. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with students?

Definition of Terms

Community : all individuals, families, and organizations within the jurisdiction of the county or school district.

Other school administrators: school leaders in other counties outside the principal's county or district, and the state department of education.

Parent/s: those individuals who are responsible for a school age child enrolled in the school or school district.

School administrators: persons holding leadership positions both in the principal's school, the principal's county or district, and the county's or district's central office, such as Assistant Principal, Assistant Superintendent, or Superintendent.

School staff: those individuals in the principal's school both professional and service personnel, who are supervised by the principal.

Student: a child of any age enrolled in school.

Significance

This study will provide information about principals' perceived effectiveness of technology usage in a variety of programs for communication. These data may be significant for program directors of educational leadership programs interested in assessing and improving the quality of their programs. Second, the findings may assist district leaders, including school superintendents or centers for professional development for school administrators, to determine what areas of educational leadership need to be focused on for professional development program design and implementation. Finally, the results may benefit administrators themselves when selecting a software program or educational coursework to aid in communication or a degree program for preparation for a leadership position.

Purpose

The purpose of this study was to investigate the disparity in the literature on school administrators using technology to improve communication by determining if practicing school administrators feel technology communications are used effectively in their professional

responsibilities. The level of effectiveness will be a direct reflection of the respondents' perceptions of their confidence in their skills when using technology to communicate to staff, other administrators, parents, and students through e-mail, blogs or Wikis, websites, social networking, or chat/instant messaging.

Method

The study was conducted using a survey titled "*Survey of Principal Communication Styles"* designed by the researcher, Bonnie Ann Allman, and mailed to the principal at each public school in West Virginia. Alternative schools and juvenile correction centers were not included even though they appeared on the state list of public schools. Subjects for the study were selected from the information provided by the West Virginia Department of Education and used in development of the state's school directory. The survey consists of eight multiple choice questions and six demographic questions to be completed by the subject. Descriptive statistics were obtained by analyzing data from the respondents using SPSS software. Frequencies and percentages were calculated for each variable.

Sampling and Design

The survey was mailed to each public school in the state of West Virginia. The addresses and names of each school's principal were provided by the West Virginia Department of Education. The population being surveyed was a nonrandom purposive sampling. The survey itself is three pages in length with multiple choice answers that allow participants to respond rapidly by marking their answers of choice. Sampling bias was difficult to determine since the participants were chosen by the position they held in the public school system. Errors of

judgment in ranges of purposive sampling tend to even out; any subjects who answer at the far ends cancel each other out.

There were 684 participants in the survey; 50% or 343 returned surveys will give more than an accurate sampling of the population. Eighteen surveys less than the 50% will equal 1% less confidence and accuracy in the results.

The survey is an ordinal measured scale. The use of the Spearman's Rank Order Correlation for the SPSS procedure for computing the statistical findings was used. The Spearman's rho is used to describe the relationship between two ordinal characteristics. Spearman is less sensitive than a Pearson correlation because it measures the statistical difference between pairs of observations; the direction of association between the X (the independent variable) and the Y (the dependent variable). Spearman can produce two meanings if X and Y show a relation. A linear regression graph is used to analyze the rank correlation.

Limitations

One limitation of this study was that the survey was mailed only to the principal of each West Virginia school, and it was possible that the person listed by the state department of education no longer held that position. To help minimize this limitation, a second line was added to the address to read "Or Current Principal." The second limitation was the inability of the subjects to elaborate on their survey responses, although an area for comments was added at the end. The final limitation was that the study depended on the individual's perception of effectiveness of the technology-based communication. There may have also been an interpretation issue on the survey items that addressed these perceptions as the returned

comments indicated that some of the items could have been interpreted to mean any technology use or just the tool the respondent indicated they most often used.

Validity and Reliability

The reliability of the study depended on the representativeness of West Virginia principals when compared to principals in other states or the country. The sample was to provide information only about the population in West Virginia.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter establishes the need for this study through a review of the related literature. The literature review is organized into five sections. The first section reviews background information, including the history and nature of communication. The second section focuses on effective communication by principals. The third section discusses roles of communication in developing an organizational vision. The fourth section examines the evolution of school communications, and, the final section discusses 21st century communication tools for educational leaders.

Communication and School Leadership

Communication in general is almost always listed as a vital aspect of the effective leader's repertoire (Finch, Gregson & Faulkner, 1992). More specifically, communication effectiveness appears to be an essential skill component that principals need to consistently communicate values from personal, official and structural orientations (Gougeon, 1991). The free flow of multi-directional information within an organization prevents intra-organizational problems and supports the relationship of the institution to the larger social context (Katz & Kahn, 1978). It is therefore, imperative that school principals have knowledge of appropriate and effective communication behaviors, a repertoire of communication skills, and the motivation to behave in ways that are viewed as both appropriate and effective by interactants (Thomson, 1993).

Given the important role of communication in leadership, the growing complexity of the principalship, and the development of many new communication tools, a case study of school communication fills an important need in the professional knowledge base. This study provides information related to the methods of communication that principals use with their constituencies, the perceived effectiveness of these methods, and the extent to which technology has been incorporated into their communication strategies. This information can be used by those who work with and prepare school leaders, and to develop professional development and coursework.

Communication is the exchange and flow of information and ideas from one person to another; communication involves a sender transmitting an idea, information, or feeling to a receiver (US Army, 2006). Effective communication occurs only if the receiver understands the exact information or idea that the sender intended to transmit. Many of the problems that occur in an organization are the direct results of people failing to communicate clearly and effectively, which leads to confusion and can cause good plans to fail (Mistry et al., 2008). The communication process may also fail if there are interferences during the communication and parts were not received or the person receiving was not prepared to receive the communication. Communication failure may occur for a variety of reasons from environmental interferences, internal interferences such as illness, emotional interferences such as anger, or too many conversations occurring at the same time.

Communication has been both enhanced and hindered by the explosion of technology. The widespread access to technology has propelled society into the Information Age and the emerging and evolving Attention Age. The Information Age as defined by a Harvard expert on

Cyber Law is "the societal development which began to emerge at the end of the 20th Century that is marked by the increased production, transmission, consumption of and reliance on information" (Endre, 2006).

Just as CEOs of private sector organizations understand the necessity of examining communication with their boards, stock holders, and customers, school principals need a firm grasp on the modes of communications available for their use. A large portion of a school administrator's day is spent communicating to a variety of audiences including state-level officials, faculty, staff, students, parents, media and boards of education. These communications occur via a wide array of traditional and technologically enhanced methods.

Effective Communication

Susan Scott (2004), author of the book *Fierce Conversations* explains communication in the most basic fashion as being one conversation at a time. Each conversation we have with one another, whether it is our co-worker, customer, spouse, or child enhances those relationships or detracts from them. The conversation or communication itself is the relationship. Each person regardless of position has only moments to connect or form that relationship with the other individual when communicating. Verbal communication is no different when the communication is in written form. Official correspondence is a visible measure of values and reinforces the importance of what is being disseminated. The form, emphasis, and volume of memos and newsletters communicate as strongly as what is actually written (Deal & Peterson, 1999).

As the leader of the school, it is the responsibility of the principal to communicate the language of the school and the values of the organization. The effective principal of today must be a leader who can communicate empathy, warmth, openness and the ability to explore new ideas. Effective principals must also be good listeners because effective communication is a two-way process.

Horton (1985) describes effective communication as the give and take of an intelligent exchange of ideas through conversation and discussion. Howlette (1993) defines effective communication as "the ability to galvanize support, motivate people and persuade them to endorse and actively lobby for or against an action or issue" (p. 3). Sending skills are also a key to effective communication. Hoy and Miskel (1987) state that principals need to develop five methods: the use of appropriate and direct language; clear and complete information; use multiple channels; face–to–face encounters; minimization of physical and physiological noise; and repetition of the message whenever possible.

The classic model of communication involves a source, message, medium, receiver, and reaction. The source is the individual or group that has information it wishes to share. The message is devised or encoded in the form of graphics, words, or body language. The medium is the means of transmission, such as electronic, print, conversation, or gesture. The receiver interprets the message according to his/her perceptions and reacts in a variety of degrees of acceptance or rejection. Assimilation is the technical name for reaction of acceptance where the sender and receiver are in agreement or sympathetic to each other. The rejection or coercion is the opposite reaction and occurs when one party in the conversation dominates and forces or intimidates the other. The longer this type of conversation continues and the larger the difference remains between them the conversation becomes more difficult to achieve an

understanding between the sender and receiver. Selection of the medium must be appropriate to the message to capture the audience's attention. Person-to-person communication allows immediate feedback, whereas nonverbal sources allow for reception through several origins (Pulley, 1975).

Communication is a purposeful behavior that requires some type of feedback to allow for adjustment and to counteract any deviation from expectations. Feedback completes the communication process by giving both the sender and receiver the opportunity to check for understanding and to adjust behavior to meet expectations. There is a positive correlation between frequent communication and group cohesiveness (Littlejohn, 1978).

Lewellen (1990) states, "The feedback mechanism provides management with information on the extent of its effectiveness" (p. 8). To be effective, feedback should meet certain criteria to be considered useful; it should be helpful yet specific so the receiver will be acceptable and capable of using the feedback (Hoy & Miskel, 1987). Feedback adds to the concept known as open communication. It is defined as descriptive, problem solving, spontaneous, equal, exploring, supportive, and allows encouragement. Feedback is a verification tool; an essential component of the communication process in which both the sender and the receiver give support and encouragement to each other through feedback (St. John, 1990).

Open communication is oriented to life and growth and is an adaptive process that involves feedback and has a pattern of rules and behaviors. It is a hierarchically ordered process that includes subsets and is network oriented. It is not a simple interchange between A and B, but the nature of communication that is shaped by the individual perception of self, other, and the relationship (Hoy & Miskel, 1987).

Messages must be transmitted as clearly as possible to assure they are interpreted in the intended manner (Pulley, 1975). As a communicator, an administrator needs to be aware of six basic aspects of communication: (a) the purpose to be achieved by the message; (b) the person(s) to whom the message is directed; (c) the sender of the message; (d) the content of the message; (e) the alternative channels for communicating the message; and (f) the need for feedback or a response to the message (Snowden & Gorton, 1998).

Hoy and Forsyth (1986) contend that comprehension of the communication when using written formats is less likely to have misinterpretations of meaning than with oral formats, and written communication is an important means of expression for the principal (Gougeon, 1991).

Effective communication is one of the most overlooked and least understood areas of school leadership (Soule, 2008). Most principals spend approximately 75% or more of their working day communicating with teachers, students, parents, secretaries, and other persons. They engage in some form of written or spoken communications more than 200 times in a day (Valentine, 1981). Effective principals use every appropriate opportunity to communicate expectations, taking advantage of faculty meetings, student assemblies, newsletters, memos, and chance encounters (Blasé and Kirby, 2000).

Research verifies that communication in the organization is critical to organizational health, effectiveness, and possibly even productivity (Bjorklun, Cavanaugh & Lawson, 1991). Bossert et. al. (1982) contributed greatly to our understanding of the relationship between leadership and teacher performance by introducing a model that links school principals' actions - such as goal setting, evaluating, monitoring and modeling – to instructional climate. Heck, Larsen & Marcoulides (1980) and Heck & Marcoulides (1993) have tested this theoretical

model. They found several behaviors including communications that helped establish an orderly environment that enhance school climate (Blasé & Kirby, 2000).

Among the many qualities or attributes that serve as the framework for leadership development programs, communication shows up repeatedly as being an important aspect of the administrative leader's repertoire (Finch, Gregson & Faulkner, 1992). Effectiveness appears to be an essential component that links communication to leadership. Effective principals consistently communicate values from personal, official and structural orientations (Gougeon , 1991). Free flow of information that travels in many directions within an organization prevents intra-organizational problems and supports the relationship of the organization to the larger social context (Katz & Kahn, 1978). Organizational communication refers to the means for transmitting information essential to the achievement of organizational goals. This includes formal and informal means of directional flow: upward, downward, horizontally, and diagonally, as well as network patterns such as the wheel, chain, Y, circle, and star (Lunenburg & Ornstein, 1991).

Communication means sharing messages, ideas, or attitudes to produce understanding or shared meanings among people. These shared ideas and meanings become important to the development of successful schools (Lewis, 1975).

Communication flows horizontally or vertically, with horizontal communication supporting organizational interaction stability while vertical communication is used to effect change (Valentine, 1981). Katz and Kahn (1978) note a distinct difference in upward and downward (vertical communication flow in that upward communication is not characterized by spontaneous or complete expression. Downward communication, from leader to subordinate, is

used for five purposes in an organization: (a) task instruction, (b) task rationale, (c) procedures and practices, (d) feedback, and (e) indoctrination of goals (Katz & Kahn, 1978).

Luthans (1973) emphasized the need for attention to both the upward and downward or vertical channels of communication as it does create one of the greatest challenges for the administrator. When information is controlled from the top there is limited provision for feedback, which prevents the organization from benefitting from the input of the subordinates in the organization. Many times the subordinates are not made aware of relevant information.

Likert (1967) adds that the success of this type of superior-subordinate relationship is greatly dependent on the subordinate. The subordinate's perception of the situation, rather than the superior's, determines whether or not the experience is supportive.

In a study conducted by Mercer Human Resource Consulting (2003), 2,600 United States workers were asked to share their attitudes and perceptions regarding their jobs, organization, compensation, benefits, work environment, and the management of the organization. Results suggested that communication is a critical factor in engaging and keeping employees, perhaps even more than pay. A 1992 study by Whaley et al. states, "teacher's satisfaction with his or her supervisor appears to be the most closely associated with the teacher's perceptions of the supervisor's communication behavior" (p.227).

Burns (2003) also spoke of the importance of "empowerment" of the members of the organization. By empowering the organization members, the leader is able to motivate them to rise above narrow interests and work together for transcending goals, thus creating leaders out of followers. The role of leadership is to create and expand opportunities that empower people to pursue happiness for themselves (Burns, 2003).

A 1993 report by the American Association of School Administrators identified effective communication as the key to a successful board–administrator relationship. Open communication inspires confidence and empowers staff members (Benjamin & Gard, 1993). Witherspoon (1998) made an even stronger claim that leadership exists only through communication. Leaders are increasingly important as creators of culture, decision makers, and change agents. These roles require the use of communication to develop shared meanings, search and use information effectively, and create and communicate visions to enhance an organization's future and guide it through eras of change.

Communication and Organizational Vision

Effective leadership is essential to every successful organization. Effective leaders collaboratively create a vision and establish a climate for people in the organization to reach the highest level of achievement. Additionally, effective leaders also communicate and work with others to achieve the vision. They mobilize resources and promote collaborative activities among people in the organization to achieve the agreed upon goals (Moore, 2009).

Before a leader communicates a vision, several questions should be answered candidly by not only leadership of the organization, but by the entire group. These answers form the foundation for the organization, and all values and actions should stem from these beliefs. The group must first identify what its purpose is or why members are all together as a group. If the group has conflicting values, beliefs and purpose, it will be difficult to have a shared vision. By having a shared vision, communication begins to develop shared relationships with trust and respect, and a team mentality is developed.

The next issue a group should address is about what the community needs and wants. The group would not only consider students' needs, but also the needs of society, parents, colleges, employers, district boards of education, staff, faculty, facilities and state and federal agencies. The last question to be addressed by the group would be the more global view: what is it our organization wants to contribute to the world? Organizations of today deal in a global society, and they have ethical commitments to produce graduates who are ready to take on responsibilities for family, community, country, and the world.

The mission and vision are a reference point for all to see. Referring back to the mission and vision helps identify the goals of the organization and helps members to stay focused on the steps necessary to achieve those goals. A school leader may find this method of communication with others by helping each individual reach his/her potential of helping the entire group in reaching its goals.

The Evolution of School Communications

In the early 19th century, the majority of schools were in rural settings employing one teacher. This teacher was commonly a non-married female and her living quarters rotated from family to family within the community. Communication between the school and teacher was direct (face-to-face), with an occasional note if the family was literate. The community generally was composed of a handful of families who attended the same church or lived a few miles apart. The families usually went together financially to hire a teacher. Often these schools operated for a few months of the year when children were not needed on the farms. The value of education was high to the community. Everyone pitched in to support the school with farmers supplying

the wood for heat and families building desks, all taking turns cleaning and supplying materials such as chalk and slates.

By the mid-19th century, industrialization was causing cities and towns to grow. With class enrollments increasing, many city and town schools had to acquire more staffing. Towns were forced to employ multiple teachers. Often these teachers had specialized training to meet the needs of the diversity of the area (Gaither, 2003). As these schools evolved, a need for the organization of activities and instruction developed. No single teacher had authority outside his classroom to make decisions. A "head teacher" would take responsibility for decisions such as determining the opening and closing time, scheduling classes, requisitioning supplies, managing the building, and communicating with parents and the community (Anderson, 1963). Many school districts gave this position the name "principal teacher." Later "teacher" was dropped and the present day name of principal was adopted (Goldman, 1966).

Metropolitan schools with large enrollments freed the principal from teaching, allowing him to take on other professional responsibilities, mainly the supervision of teachers. There was only a handful of women principals until 1920 when women won the right to vote and could change the outcomes in school elections. By 1928 women made up half of the elementary principals in the country (Tyack & Hansot, 1982).

The principal also acted as a liaison between the school and local board of education (Goldman, 1966). By the mid-1850s, tax dollars funded schools, and superintendent of schools became a regular position in larger cities that had multiple schools or large grammar or secondary schools (Cubberly, 1922). As this occurred, the principal became a liaison between the school and the central office (Anderson, 1963; Gaither, 2003; Smith & Piele, 1989). The principal began to network outside the school, and to take on community responsibilities in the

town hall and church. For example, they often served as home visitors of the sick, bell ringers, grave diggers, and court messengers (Jacobson, 1950; Goldman, 1966). Most communications at that time were face-to-face, because the high rate of illiteracy and multiple languages of immigrants made written correspondence difficult.

The principal's public presence and educational level elevated him to the same status as a town mayor. Along with this status came responsibilities and expectations from the community. The principal was expected to be present at local cultural and civic affairs. It was not uncommon to find principals involved in volunteer capacities working long hours on projects and sitting on social committees (Jacobson, 1950). These social activities allotted time for principals to have informal and impromptu conversations with students, staff, parents and the general public.

During the last half of the 19th century, high schools increased in number from 321 in 1860 to 2,526 in 1890, according to the US Bureau of Education in 1904. Between 1891 and 1900, 3,700,000 new immigrants arrived in America causing schools in cities and metropolitan areas to expand and new schools to be built to keep up with the increase of students (US Census, 1900).

Media has always been a highly important part of a democratic society (Anderson, 2007; Moses, 2007). From the beginning of United States history, print media has played a central role in our society. New discoveries in science and technology - the radio in the early 1900s, television in the 1950s, and more recently the Internet - have resulted in an even greater role for media in society. The media in a democratic society can alert the public to important events and problems, inform the public about social issues, serve as "watchdog" as well as hold public officials and institutions publicly responsible for their actions (Anderson, 2007; Duffy, 2007). The wide range of media sources today offer community members the opportunity to share

information and opinions through many types of tools, or even create their own media streams to communicate with a targeted audience (Conners, 2000). No matter what element, the media plays, it is an important role in the public's view of key educational issues. When local media and local schools increase information-sharing, reporting on education can be more accurate, fair, and balanced and result in a more knowledgeable public who support local schools (Public Education Network, 2008).

The 20th century saw the most advancement in communications over the last 2,000 years combined. One of the most significant changes in education in recent years has been the universal availability of a range of information and communication technologies (ICT) at work, school, and most significantly, at home. The knowledge of the world around us and the information that can be accessed about it is developing rapidly, in part aided by an almost universal access to the World Wide Web (Condie & Livingston, 2007).

The 21st century has witnessed the rapid growth of Web 2.0 tools, which are especially helpful in the three areas of transforming communications. They include advocacy, networking, and collaboration. Networking through technology can form powerful alliances, connecting leaders and experts locally, nationally and internationally (Soule, 2008). Brass and Krackhardt (1999) suggest that the social network aspects of leadership are as important as the human capital aspects of leadership. Baker (2000) states that success depends on our relationships with others as much as it does on ourselves and that individual achievement may not exist; even an individual's attributes such as talent, intelligence, education, effort, and luck are dependent on relationships with others.

Communication between the school principal and those he or she serves is a vital and important task. The principal should identify methods or modes of communication open for the

use of distributing information. The well-established methods of distribution in the media are newspapers, television, both public and private, and radio. In the 21st century many other avenues of communication are available and should be used in tandem with the traditional methods. Network building can create trust, collective objectives, collective accountability, and common norms (Putnam, 1995).

Media and technology are converging with new methods of communication. The types of communication that are emerging will rapidly change the way in which we communicate with each other. Individuals now have at their fingertips continuous voice, text, video, instant messaging such as Twitter, social networking such as Facebook, Skype®, Google Voice, and access to the World Wide Web. All of these devices and methods of communication have caused a paradigm shift in how individuals interact with one another (Killian, 2009).

Face-to-face or telephone conversations were the norm in the past, but these required a person's full attention to those present or on the phone. Today, many prefer to text or e-mail rather than place a call. It could be for reasons of control; one is able to control time spent on these tasks without having to hang up or walk away to terminate a conversation. The communication is less dedicated, allowing gaps or pauses in the interaction.

Texting, e-mailing, and social networking communications appear to be taking priority. A commonly cited reason for it is the need to communicate with and respond to anyone trying to contact individuals instantly (Killian, 2009).

A principal's communication skills not only include face-to-face activities of the day, but both asynchronous (not occurring at the same time, without time limits) and synchronous

(occurring or existing at the same time) communication. These include activities such as E-mailing person-to-person or designated groupings such as teachers or listservs, which sends communications to larger interested groups. Chat rooms, interactive videoconferencing, and possible interactions through simulations and models are just a few types of technological advance communications used today. Each of these methods of communication requires knowledge of not only how to use each successfully, but the etiquette that is often unique to each environment. Information technologies such as Web 2.0 do not change what is required for high quality interactive communications, but they do add a new dimension that helps enhance communication, increase collaboration, and promote creativity (21st century Skills, 2010).

The interconnectiveness of today's world brings with it unprecedented complexities. Information is instantly available to the masses at a very low cost. Visual imagery interwoven with text has advanced in helping communicate ideas. Unlike the past, principals now have the ability to build communities of individuals that have like interests or concerns to be together in an environment that has no physical or time restraints in order to share ideas or to problem solve.

Twenty First Century Communication Tools for Educational Leaders

Although usually born of necessity, occasionally invention springs into life spontaneously, creating a need where none existed before. Over the years, what first appeared as exotic, if only marginally useful, technologies such as radio, television, fax, even the first computers are exactly such phenomena mushrooming unexpectedly into central elements of our lives. Today, e-mail presents itself as the next potential candidate (Baird, 1998). In the 2007 the "Speak Up Survey" conducted by Project Tomorrow 2008, the nation's leading education nonprofit organization, polled principals and district administrators in ten states and three

countries to find out how technology was being used. e-mail was used by 93% of the polled individuals to communicate with colleagues and parents and only 30% used technology to participate in online communities (Speak Up Survey 2007, 2008).

Cross and Parker (2004) suggest that network building in organizations is first and foremost a human issue, and therefore, it is a leadership issue. Technology would allow those outside of the school setting regardless of economics to be able to access the Internet and learn about the teachers in the school, the activities at the school, resources available to students and parents, future growth opportunities for their children, and the world beyond their back doors. Parents with digitally-native children would be empowered over their own education and that of their children (Gallagher, 2004).

Daft and Lengal's study (1986) claims that the richness of the media used for communication determines its capacity for resolving ambiguity and facilitates understanding. Information richness is defined by Daft and Lengel as the ability of information to change understanding over time. Rich media, such as face-to-face or verbal communication, are personal and interactive while lean media, such as e-mails and memos, are impersonal and rely on rules and procedures (Daft & Lengal, 1986).

Montano and Dillon's (2008) study explores the use of different technologies for different types of communication within an organization. Their results suggest that while technologies can strengthen relationships within an organization, certain technologies are better suited for certain types of communications. Telephones, for example, are useful when individuals want to interact. Electronic communication technology is seen as convenient, and while websites are valuable for the dissemination of information, they do not foster a sense of

belonging to an institution. E-mail can create "a fair, homogeneous environment" which may strengthen the individual–to–organization relationship (Montano & Dillon, 2008).

According to Bernstein (1998), among the benefits of e-mail is the cost. E-mail is cost effective and, therefore, after the initial set up, costs very little for school districts and parents. Unlike phone services, which come with high monthly fees, parents can access free e-mail accounts through services like Hotmail at their local libraries. Parents are more likely to respond to e-mails than to take time to call or write a handwritten letter, therefore, increased parental involvement can result. Parents are more likely to become involved in schools where they feel they play an influential part in the decision making, than in schools where parents' views were not considered when making decisions (Griffith, 1998).

Social Networking

Society is shifting to a networked society as evidenced by globalization, increases in diversity, networked organizational designs, complex ecosystems of alliances and partnerships, the free-agency style of employment, and the widespread use of information technology (Baker, 2000).

New understandings of leadership are emerging in education. No longer is the emphasis on a leader as an individual, but moving toward the notion of leadership as a social action. Collective activities that take place in and through relationships and webs of influence among individuals who have common interests and goals is a process of learning undertaken by all in the group. This results in greater shared understanding and positive actions.

Social networking is part of what has been termed Web 2.0, usually defined as the "second generation" of the web development. Initial, passive-display Internet (the "first generation" function) has now evolved into interactive, read/write functionality that encourages users to share ideas and creative products (Walling, 2009).

In a 2009 study conducted by Ed Web, it was found that educators who have joined a social network are more positive about the value of this technology for education and in a wide range of applications.

The Internet offers individuals an opportunity to interact or communicate between one or more people, which is termed the foundation of contact networks. Coleman (1988) and Brass (1995) have found these encounters form a social cohesion can foster trust and facilitate information transfer and sharing. These encounters may happen anywhere in the world about any topic and with complete strangers in chat rooms termed real-time contact. Or that may happen over time by entering information and opinions onto a blog. In an Internet chat room, people can talk with each other and exchange opinions; in one's blog, people can post comments to approve or disapprove an individual blogger's ideas, and the blogger may answer every comment. In a news websites, people can read news including the opinions of the writers (Yun Liu & Zhang, 2009).

In August 2007, Grunwald Associates, in cooperation with the National School Board Association, released a study on online social networking that shows the gulf between students and their school districts. The survey found that students spend almost as much time using social networking services and browsing websites as they do watching TV. Ninety-six percent of

students with online access have used social networking technologies, such as chatting and blogging, and have visited online communities such as Facebook and MySpace (Fletcher, 2007).

Internet

Web 2.0 is not just a consumer phenomenon but ialso a valuable tool in communication both in business and education. Organizations of all shapes and sizes have been quick to recognize its considerable potential to create a direct dialogue with customers. Many of these customers will be workers, accessing social networking sites either from the office, or externally on a device belonging to the organization. Internet users accessing social networking sites in 2009 were equivalent to more than one billion people (Tanase, 2010).

Websites developed by schools and school districts have the potential to be useful for parents, who work and raise a family, to interact with the school. Websites unite people who share a common interest and a sense of community. The phrase "it takes a village to raise a child" could be applied to schools. A school can become just such a village with more communication and shared vision with teachers, staff, parents and community. Those who wish to participate may feel as though they have ownership of the school and the students tend to feel connected and that they can make a difference.

Blogging is also a Web 2.0 type of service found on the Internet and used to help an individual, group or organization to express opinions, look for ideas, ask for advice, build a

community, network with others like them, or to attract traffic to a website. Inspiration and creativity are the drivers that fuel a blog.

The Extraordinary Effect of School Consolidation in West Virginia on School Communication

As early as the late 19th century, small community-run schools were being castigated as unsystematic, inefficient, and backward. They all but disappeared in the metropolitan areas during this era, but rural communities retained their schools. Country schools were almost always buildings of one room, occasionally two, educating the children of local families. Rural schools suffered from seasonal attendance and lack of resources. Nonetheless, the one-room school and later the rural high school were centers of communication, socializing, and athletic participation, and they served as places to vote. They were the symbols of civilization itself in many communities (DeYoung, 2010).

As late as 1907–08, according to one report, West Virginia had 6,156 schools in 395 districts. The student population would nearly double over the next forty years, from 235,191 to 460,429, but this growth in the number of students would soon be reverse due to the loss of mining and industrial jobs in the 1950s and 1960s, thus reducing the school-age population of many counties and undercutting school budgets. By 1959–60, the number of schools in West Virginia had been cut to 2,843, less than half the number reported a half-century before (DeYoung, 2010).

In 1989, West Virginia created through legislation a School Building Authority (SBA) by the request of Governor Caperton to help carry out the WV Supreme Court's Recht Decision. The Recht Decision comprises the Opinion, Findings of Fact, Conclusions of Law and Orders in West Virginia's major education reform case, which found the West Virginia school financing system to be largely unconstitutional. The Recht Court ordered a high quality education system to be put in place and financed "at the earliest practicable time" *(Pauley v. Bailey*, March 4, 1983, p. 5). The court, however, left implementation of its order up to the legislature, the state superintendent of schools, and the state board of education. The one major piece of the Recht Decision that has been implemented is state-wide facility financing through the SBA. The SBA was created to sell bonds and distribute the money raised to county school boards based on need for school building and maintenance. In this manner, school facility needs were to get equal attention whether they occurred in a poor county or a rich one (Purdy, 1997).

The result of these changes was that during the 20th century thousands of schools and hundreds of school districts disappeared in West Virginia. The state became the primary governing entity for West Virginia schools, eclipsing communities and counties. By the end of the 20th century, fewer than 900 of the 6,156 schools remained from back in 1907. There are occasional suggestions that 55 county school systems are too many, and that they should be further consolidated, also enabling school consolidations between counties (DeYoung, 2010).

Once consolidated, schools were then given funds for the construction of new schools or substantial remodeling of existing schools to meet new and larger class size requirements. The public was rarely in favor of this "forced" consolidation approach, and as opposition began to grow, Governor Caperton, a proponent of consolidation, responded by appointing a representative from the construction industry to the SBA Board (DeYoung & Howley, 1992;

Purdy, 1997). The justification for closing or reorganizing rural schools is still prevalent in the minds of policy-makers and educational professionals today, and a major concern for many rural communities (DeYoung & Howley, 1992).

Studies found that when community interests were ignored during consolidation proceedings, educational absenteeism and community disintegration increased (Bard, Gardener & Wieland, 2006). The relationship of the public school to the community and the role of the school in sustaining the community has also been a concern for those opposed to consolidation efforts. Ilvento (1990) asserts that the public school is important to the rural community both socially and economically. Socially, schools in rural areas tend to be the only source of social activity. Economically, the school is often the largest employer in a rural community. The school can also be the focus of many community activities as well as school activities. Ilvento stresses the importance of connecting the rural school to the community through the curriculum, and the need for flexibility in policies to meet local needs (Bard, Gardener & Wieland, 2006). Generally, rural communities enjoyed local control, and parents had considerable involvement in making decisions for their children (Kaestle & Foner, 1983).

Today, technology makes it possible for schools to offer students in rural and remote places the same advanced courses and enriched curriculum as provided in larger schools. These networks can also be used for collaborative staff development and for local community purposes (Strange & Malhoit, 2005).

Principals are positioned to have a positive effect on the relationship between the school system and the community. Communication with parents and other citizens, business, health and social-care agencies, several levels of government, teachers, administrators, and students is

essential and is the glue that binds the learning community together. Establishing good communication processes with the community is an essential task. Principals in small, rural school districts serve as the individuals who market the district and school and who interpret their programs to the parents and community members. Principals must have a knowledge and understanding of emerging issues and trends that potentially impact the school community, the conditions and dynamics of the diverse school community, community resources, community relations, and successful models of schools (Ubben, Hughes, & Norris, 2001). They must also understand how they use technology to maintain communication with a geographical and ideological expanding school community.

Given the unique juxtaposition of West Virginia's significant school consolidations and the availability of broadband communication connections to an increasing numbers of locations within the state, a study that examines school leader communication modalities and perceived effectiveness is warranted.

Summary

Given the important role of communication in leadership, the growing complexity of the principalship, and the development of many new communication tools, a case study of school communication and technology fills an important need in the professional knowledge base. This change in the workplace, with the introduction of technologies that enable an administrator to respond electronically to a variety of constituents in a variety of forms, has an impact on the effective administrator possessing the technology skills to carry out each of the communication methods.

Cross and Parker (2004) suggest that leaders assume they cannot affect the building or shaping of social networks in their organization and community. Leaders often discuss strategic alliances and partnerships, and they promote collaboration between employees and groups within the organization, but they rarely take specific actions to demonstrate their support of organizational networks. Intentionally or unintentionally, their behaviors reveal the true value they place on networking and collaboration (Weick,1979; Novack, 2008).

An administrator is now required to gather, synthesize and disburse a variety of information without the process becoming a hindrance. DiPaola and Tschannen-Moran (2003) reported the greatest increase in time usage for school administrators is the use of e-mail. The use of informational databases, student-based learning programs, e-mails, and calendar tools can affect job effectiveness with administrators spending one or more hours a day responding to electronic communications (AST, 2006; Hopkins, 2006).

This study provides information related to the technology-based methods of communication West Virginia principals use to communicate with their constituencies and the perceived effectiveness of these methods. This information can be used by those who work with and prepare school leaders to develop professionally through course work. It can also be used by those who develop and offer principals' professional development with technology to enhance communication as school leaders by seeking to enhance their communication effectiveness through the use of technology.

CHAPTER THREE

METHODS

The consolidation of schools in West Virginia over the past 40 years has placed more importance on the ability of a principal to communicate with staff, other administrators, students, parents and communities. Each consolidated school must reach a wider range of staff and a wider demographic than the smaller school of yesterday. The relationship of the public school to the community and the role of the school in sustaining the community has also been a concern when consolidating. The public school is the cornerstone of the rural community, providing social and economic opportunities and the center for many social activities (Ilvento, 1990; Bard, Gardener & Wieland, 2006).

The effectiveness of communication appears to be an essential skill component which principals need to be using consistently to communicate values from their personal, official and structural orientations with the use of effective communication behaviors and skills (Gougeon, 1991; Finch, Gregson & Faulkner, 1992; Thomson, 1993). The effective principal of today must be a leader who can communicate empathy, warmth, openness and the ability to explore new ideas. Horton (1985), Howlette (1993) and Lewis (1975) all describe effective communication as the give and take of an intelligent exchange of ideas through conversation and discussion of issues with a supportive and motivating style important to the development of successful schools. Effective leadership is essential to every successful organization,and effective leaders also communicate and work with others to achieve the vision (Moore, 2009).

Methods

This study was a non-experimental study using a researcher-designed survey instrument for ex post facto research (Campbell & Stanley, 1963). Data were obtained using the *Survey of Principal Communication Styles* designed by the researcher, Bonnie Ann Allman, which was mailed to all West Virginia pubic school principals using information provided by the West Virginia Department of Education (n=685). The instrument consisted of three sections. The first section was designed to gather data related to the methods of technology-based communication used by the respondents with various constituencies. This section also contains questions to gather the principals' perceived effectiveness of the various forms of communication and the second section was designed to gather demographic information. The final section of the survey document was an open-ended comment section.

Population and Sampling

This study was a purposive sampling conducted as a survey of all current public school administrators in the state of West Virginia as identified by the West Virginia Department of Education (n=684). The school administrators were mailed the survey titled *Survey of Principal Communication Styles.* (See Appendix C)

Instrumentation

The first section of the survey was designed to gather the information from participants that aided in answering what types of technology–based methods were most often used by a school principal to communicate with the various groups identified in this study. They selected only one of the types of technology-based tools they were currently using the most often when communicating with each group. The type of technology-based methods offered were as

follows: E-mail, Chat/IM, Blogs and/or Wikis, Websites, Social Networking (Facebook, Twitter, Google Plus, etc.), or Other (Please Describe). Principals completing the survey responded to items about the use of these technologies based on communication with staff, other administrators, parents, and students.

Section two was designed to help principals express their opinions of the perceived effectiveness of each technology–based tool used in communicating with each group listed above. The survey has an eight scale model that progresses from Ineffective (1) to Very Effective (8). The last section was designed to gather demographic information including sex, age, job title, the highest degree level, the highest grade level in the principal's school, and lowest grade level.

Surveys, along with an informed consent cover letter, were sent via the United States Postal Service to the 690 principals at the school addresses provided by the West Virginia Department of Education. A self-addressed stamped envelope was also included in the mail. A follow-up e-mail was sent two weeks after the initial request. There were no identifiers that would allow the respondents to be identified.

CHAPTER FOUR

PRESENTATION AND ANAYLSIS OF DATA

Chapter Four is a presentation of the data collected from the researcher-designed survey titled "Survey of Principal Communication Styles" (See Appendix C) and the analysis of those data. This chapter has three major sections: the first describes the population and sample, the second explains the method of data collection, and the third and final section examines the major findings of the study.

Population and Sample

The population of this study consisted of all current public school administrators in the state of West Virginia as identified by the West Virginia Department of Education (n = 690). The initial self-administered survey titled "Survey of Principal Communication Styles" was mailed to the principal at each school in West Virginia as identified by the West Virginia State Board of Education data files. The first mailing returned 276 surveys, including five with insufficient addresses and one largely incomplete instrument. After subtracting these six subjects, the population size was reduced to 684. Approximately two weeks after the initial mailing, an e-mail with an attached survey was sent to each principal for whom an e-mail address could be obtained. This process resulted in only one survey returned and one message of a previous return. Finally, personal telephone calls were made randomly (there was no way to know which principals had responded and which had not without a conversation with the principal) to principals across the state as an invitation to fill out the survey and several second mailings were requested, resulting in a return of 28 additional surveys. In all, a total of 305 returns from 684 surveys produced a 44.65% return rate.

Method of Data Collection

The survey titled "Survey of Principal Communication Styles" consisted of eight multiple-choice questions, six demographic questions, and a section for comments. The first section of the survey gathered information related to the types of technology–based methods most often used by school principals to communicate with the various groups identified in this study. The second section was designed to elicit principals' perceptions of the effectiveness of each technology–based tool in communicating with each of the same identified groups. Both the first and second sections of the survey used a Likert-type scale. The last section gathered demographic information including sex, age, job title, highest degree level obtained, highest grade level in the principal's school, and the lowest grade level.

Respondents to the survey included 289 principals, three teacher/principals, 10 assistant principals, one in an "other" position and two who provided "no response" regarding position. Of these, 161 were females and 140 were males with 4 non-responders. The mean age of all respondents was 50.9 years, with 29 master's degree holders, eight at the MA + 15 level; 47 at the MA+ 30 level; 202 at the MA+45 level; and 14 who held doctoral degrees. Five respondents offered no information.

Major Findings

The major findings from the data collection are presented in relationship to each of the research questions posed in Chapter 1. Each question is followed by an array of the data collected and a preliminary discussion of what those data suggest.

Research Questions

Q1: What technology-based method do West Virginia school administrators use the most often to communicate with school staff?

Participants were asked to identify which among six choices (e-mail, blogs and /or wikis, websites, social networking, chat/ instant message, and other) identified the technology-based communication tool they most often used to communicate with staff. The overwhelming majority of respondents 284 (93%) indicated e-mail; 13 (4.3%) did not respond; two chose blogs and/or Wikis; and one each indicated websites and chat/instant message. These data are displayed in Table 1.

Table 1

Administrative Technology-Based Communication with Staff

Tool	Frequency	Percent	Valid Percent	Cumulative Percent
E-mail	284	93.1	97.3	97.3
Blogs or Wikis	2	0.7	0.7	97.9
Websites	1	0.3	0.3	98.3
Social Networking	0	0		
Chat / IM	1	0.3	0.3	98.6
Other	4	1.3	1.4	100
Missing	13	4.3		
Total	305	100	100	

The data indicate that the primary technology-based communication method used by administrators with their staff is e-mail. Other communication modalities including Web 2.0 account for only 2.7% of primary staff communication usage.

Q2: To what extent do West Virginia school administrators perceive technology-based communication tools as being effective methods to communicate with school staff?

The majority of participants 277 (94.9%), reported that they perceived technology-based communication to be either extremely or moderately effective as a tool for communicating with their staff. A small percentage (3.6%) of the respondents perceived technology-based communication to be slightly effective and 1% took a neutral stand. Only 0.3% had a negative of extremely ineffective perception. These data are illustrated in Table 2.

Table 2

Perception of Effectiveness of Administrative Technology-Based Communication with Staff

Value	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely Effective	130	42.6	44.5	44.5
Moderately Effective	147	48.2	50.3	94.9
Slightly Effective	11	3.6	3.8	98.6
Neutral	3	1	1	99.7
Slightly Ineffective				
Moderately Ineffective				
Extremely Ineffective	1	0.3	0.3	100
Missing	13	4.3		
Total	305	100	100	

Responses to the second research question indicate that principals perceived the use of the technology-based communication with their staff as largely effective, with 94.9% reporting it as moderately to extremely effective.

Q3: What technology-based method do West Virginia school administrators use the most often to communicate with other administrators?

E-mail was again the tool most often reported as a means of communicating with other administrators 286 (93.8 %). The 11 (3.6 %) participants who chose "other" as their primary choice of communication wrote in "the telephone" as their preferred method of communication. Three respondents (1%) chose chat and instant messages as their technology-based choice of communication tool with other administrators.

Table 3

Administrative Technology-Based Communication with Other Administrators

Tool	Frequency	Percent	Valid Percent	Cumulative Percent
E-mail	286	93.8	95.3	95.3
Blogs or Wikis				
Websites				
Social Networking				
Chat / IM	3	1	1	96.3
Other	11	3.6	3.7	100
Missing	5	1.6		
Total	305	100	100	

The data very clearly indicate that the tool administrators most often used to communicate with their colleagues is e-mail. The other methods accounted for only 1% of their communication with other administrators. The remaining 3.7% classified who chose "other" were divided between face–to-face or telephone conversations.

Q4: To what extent do West Virginia school administrators perceive technology-based communication tools as being effective methods to communicate with other administrators?

Technology-based communication tools were perceived to be an extremely effective method of communicating with other administrators by 175 (57.4%) of the respondents, while another 37.7% (n = 115) indicated it was moderately effective. Only 1.6% of the respondents (n = 5) perceived technology-based communication as being only slightly effective and another 4 (1.3%) indicated "neutral" as their perception of the effectiveness of technology-based communication tools. These data are detailed in Table 4.

Table 4

Perception of Effectiveness of Administrative Technology-Based Communication with Other Administrators

Value	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely Effective	175	57.4	58.5	58.5
Moderately Effective	115	37.7	38.5	97
Slightly Effective	5	1.6	1.7	98.7
Neutral	4	1.3	1.3	100
Slightly Ineffective				
Moderately Ineffective				
Extremely Ineffective				
Missing	6	2		
Total	305	100	100	

With 95.1% of the respondents indicating their perception of technology-based communication tools' effectiveness as being at least moderately effective, principals apparently

perceive these forms of communication as valuable tools in their interactions with other administrators.

Q5: What technology-based method do West Virginia school administrators use the most often to communicate with parents?

When asked which technology-based tools principals most often used to communicate with parents, the largest percentage group (n = 114) 37.4 % of the West Virginia school administrators responding to the survey indicated "other method." An analysis of the write-in data for the "other method" option indicated the use of School Messenger, which is an automatic telephoning system, and written correspondence such as newsletters to be the preferred methods of communication.

School websites were the second most selected among the survey options with (n = 88) 28.9%. This was followed by e-mail with (n = 70) 25.9%, social networking (n = 6) 2%. blogs and Wikis and chat/instant messages each received only (n = 1) 0.3% each. Table 5 provides an array of these data.

Table 5

Administrative Technology-Based Communication with Parents

Tool	Frequency	Percent	Valid Percent	Cumulative Percent
E-mail	79	25.9	27.3	27.3
Blogs or Wikis	1	0.3	0.3	27.7
Websites	88	28.9	20.4	58.1
Social Networking	6	2	2.1	60.2
Chat / IM	1	0.3	0.3	60.6
Other	114	37.4	39.4	100
Missing	16	5.2		
Total	305	100	100	

A more in-depth analysis of the data collected for the "other method" option on the survey indicated there were three emergent categories of qualitative data: telephone, written communication (including newsletters) , and face-to-face interactions. The largest majority (approximately 80%) of the other responses fell under the telephone category, which included both traditional telephone conversations and automated ring-down systems.

The data indicate that principals' communication with parents typically occurs via a low-level use of technology, such as telephones or telephone systems, or through non-technological methods such as newsletters and personal conversations.

Q6: To what extent do West Virginia school administrators perceive technology-based communication tools as being an effective method to communicate with parents?

Of the 282 participants responding to this item on the survey, (n = 82) 26.9% reported their perception of the effectiveness of technology-based tools for communicating with parents to be extremely effective, (n = 138) 45.2% indicated perceptions that were moderately effective,

and (n = 43) 14.1% reported perceptions that technology-based communication tools were only slightly effective. “Ineffective” options (i.e., slightly ineffective, moderately ineffective or extremely ineffective) were chosen by only (n = 11) 0.4% of the respondents.

Table 6

Perception of Effectiveness of Administrative Technology-Based Communication with Parents

Value	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely Effective	82	26.9	28.8	28.8
Moderately Effective	138	45.2	48.4	77.2
Slightly Effective	43	14.1	15.1	92.3
Neutral	11	3.6	3.9	96.1
Slightly Ineffective	5	1.6	1.8	97.9
Moderately Ineffective	3	1	1.1	98.9
Extremely Ineffective	3	1	1.1	100
Missing	20	6.6		
Total	305	100	100	

A majority of the principals reported they perceived technology-based communication tools as effective methods of communicating with parents.

Q7: What technology-based method do West Virginia school administrators use the most often to communicate with students?

West Virginia school administrators were divided mostly between two choices when communicating with students. The highest percentage (n = 99) 32.5% indicated a preference for a non-technology-based method to communicate with students, and that was face- to-face interaction. School websites came in second with (n = 86) 28.2% followed by e-mail at (n = 19)

6.2% and (n = 11) 3.6% indicated they used no technology to communicate with students. Only 1.3% (n = 4) of the respondents reported using blogs and/or Wikis and 1% (n = 3) use social networking as a method to communicate with students.

The "other" survey choice was selected by (n = 99) 32.5% of the respondents. An emergent category analysis of the write-in responses for this survey item revealed that 89.8% of the responses favored personal interactions with students. It is worth noting that (n = 79) 25.9% of participants chose not to answer this survey item at all. These data can be found in Table 7.

Table 7

Administrative Technology-Based Communication with Students

Tool	Frequency	Percent	Valid Percent	Cumulative Percent
E-mail	19	6.2	8.4	8.4
Blogs or Wikis	4	1.3	1.8	10.2
Websites	86	28.2	38.1	48.2
Social networking	3	1	1.3	49.6
Chat / IM	4	1.3	1.8	51.3
Other	99	32.5	43.8	95.1
No Technology Used	11	3.6	4.9	100
Missing	79	25.9		
Total	305	100	100	

Perhaps the most illuminating data related to this question can be seen when the responses for "no technology used" (n = 11) and "other" (n = 99) are combined with the no-response numbers (n = 70). This aggregation of the data indicates that 180 or 59% of the respondents likely are using little or no technology to communicate with students.

Q8: To what extent do West Virginia school administrators perceive technology-based communication tools as being effective methods to communicate with students?

When asked how they perceived the effectiveness of technology-based communication tools for communicating with students, (n = 83) 27.2% reported they were "moderately effective." "Extremely effective" was reported by (n = 62) 20.3%, followed by (n = 31) 10.2% reporting them as "slightly effective," and (n = 23) 7.5% were neutral on the subject. Only 18 respondents (0.06%) indicated that technology-based communication with students is ineffective. These data are displayed in Table 8.

Table 8

Perception of Effectiveness of Administrative Technology-Based Communication with Students

Value	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely Effective	62	20.3	28.6	28.6
Moderately Effective	83	27.2	38.2	66.8
Slightly Effective	31	10.2	14.3	81.1
Neutral	23	7.5	10.6	91.7
Slightly Ineffective	5	1.6	2.3	94
Moderately Ineffective	2	0.7	0.9	94.9
Extremely Ineffective	11	3.6	5.1	100
Missing	88	28.9		
Total	305	100	100	

Overall, nearly half (47.5%) of the respondents indicated they perceived the use of technology-based communication tools with students to be at least moderately effective, whereas

only 0.05% of the respondents indicated they perceived technology-based communications to be ineffective at any level. Interestingly, this finding appears to be at odds with the finding of research question 7 reported above, which noted that 59% respondents likely are using little or no technology to communicate with students despite their perception that it is/would be moderately to extremely effective.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes a review of the study and the findings followed by the presentation of discussions of the findings, conclusion, implications, and recommendations.

Summary of the Study

Given the recent emphasis on technology use in schools and the plethora of new tools brought on by the development of Web 2.0 tools, it is important to know if school leaders, specifically principals, have adopted these new tools to improve communication from and to the school. Therefore, the purpose of this study was to use case-study research protocol to investigate West Virginia school principals' use of, and their perception of effectiveness, of technology-based tools for communicating with selected school constituent groups.

The researcher-designed survey titled "*Survey of Principal Communication Styles"* (see Appendix C) consisting of eight multiple choice questions and six demographic questions was mailed to all current principals in West Virginia (n= 690). The survey collected data related to each of the six technology-based tools (e-mail, blogs/Wikis, social networking, chat/IM, or other) were most often used by West Virginia principals to communicate with staff, other administrators, parents, and students. Additional data were also collected related to the principals' perceptions of technology-based tools for communication with each of the selected constituent groups. The following questions were used to guide the research:

RQ1. What technology-based method do West Virginia school administrators use the most often to communicate with school staff?

RQ2. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with school staff?

RQ3. What technology-based method do West Virginia school administrators use the most often to communicate with other administrators?

RQ4. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with other administrators?

RQ5. What technology-based method do West Virginia school administrators use the most often to communicate with parents?

RQ6. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with parents?

RQ7. What technology-based method do West Virginia school administrators use the most often to communicate with students?

RQ8. To what extent do West Virginia school administrators perceive this technology-based communication tool as being an effective method to communicate with students?

Population and Sample

The population of this study consisted of all current public school administrators in the state of West Virginia as identified by the West Virginia Department of Education (n=690). After adjustment for mailing errors the population became 684 (n=684). A total of 305 surveys were completed and returned (44.6%). Frequencies and means were calculated for each variable to provide the data for this case.

Summary of Findings of the Study

When asked which technology-based communication tools principals used to communicate with their staff, the primary method reported was e-mail (93.1%). Other technology-based tools accounted for only 2.7% of the primary staff communication usage. When this same group was asked about its perception of the effectiveness of technology-based communication with staff, 94.9% indicated that it was a moderately to extremely effective method.

Technology-based communication with other administrators was most often accomplished via e-mail (n=93.8%). The 11 (3.6%) participants who chose "other" as their primary choice of communication wrote in "the telephone" as their preferred method of communication. Respondents also revealed their perception of technology-based communication tools' effectiveness when communicating with other administrators as being at least moderately effective (95.1%).

The use of technology-based tools by principals to communicate with parents occurs much differently than with school staff and other school administrators. When asked which technology-based tools principals most often used to communicate with parents, 37.4% of the West Virginia principals indicated "other methods." An analysis of the write-in data for the "other method" option indicated the use of School Messenger, which is an automatic telephoning system, and written correspondence such as newsletters to be the preferred methods of communication. Following "Other" methods and "E-mail", school websites were next with 29.9%. This was followed by e-mail with (n=70) 25.9%, social networking (n=6) 2% and blogs and Wikis and chat/instant messages each received only (n=1) 0.3% each.

Just as with communicating with parents, the information uncovered by this study revealed that principals rarely use technology to communicate with students. When asked their perceived effectiveness of technology-based communications tools, (n=83) 27.2% reported "moderately effective". "Extremely effective" was reported by (n=62) 20.3% followed by (n=31) 10.2% who reported "slightly effective" and (n=23) 7.5% who stated they were "neutral".

Discussion of the Findings

It is evident from the findings that principals have fully embraced e-mail as a form of communication with their staffs and display a high level of confidence with this technology-based communication. There was evidence that texting is emerging as an alternate form of communicating with staff or vice versa because it offers the staff member a fragment of secrecy to communicate with administration if a predicament or crisis is unfolding rapidly in his presence. However, it is important to note that texting in its existing form requires the use of a cell phone, and the use of these phones within the school confines is a hotly debated subject. Allowed usage in schools runs from no use/no time, to use as a teaching and learning tool within the school and classroom.

E-mailing was the communication of choice for principals communicating with other administrators. The ability to "track and stack" e-mail messages sequentially and thereby provide a written history and record of the correspondence is a helpful feature of this technology-based tool. It also provides convenience in initializing and follow-up replies as it allows the message to remain in the queue of both the sender and responder until the parties have accessed the reply.

When communicating with parents, the majority of principals (37.4%) wrote in their preferences of the least personal form of communicating: school messenger (an automated telephone message system) and newsletters. The school website followed with 29.9%. The principals also stated the inability of parents accessing the Internet as being a hindrance when using technology-based tools. E-mail was next with 25.9% usage to communicate with parents. Some principals noted that written communication could be misinterpreted, ignored or missed among other e-mails as concerns.

When asked about using technology to communicate with students, the respondents were overwhelmingly consistent in they did not use technology to communicate with students. The only communication method written in as a response to open ended questions by principals was face-to-face. While the finding was not surprising, it would appear that the large amount of intensive staff development for principals related to Web 2.0 tools for communication has not been particularly effective. The communication power of features like podcasts, blogs and social networking would allow principals to broadcast their messages easily and quickly.

Conclusion

This study revealed that technology-based communications between principals and any school constituent group is almost entirely limited to the use of e-mail and even that is used rarely with parents or students. With these latter groups, websites were reported as being used for approximately 30% of the communication with parents. It is important to note that most of these websites are static sites that only provide one-dimensional communication. Despite massive state-wide training in technology use for principals, most do not take advantage of the

very powerful resources at their disposal. One reason often given is the lack of Internet service available in the state. While that is somewhat true, it should be noted that Brooke and Ohio County have 100% of their residencies that can access broadband service. Even in rural parts of the state, the majority of homes have a computer and 33% have Internet access (Miller, 2011).

Implications

It is clear that technology-based communications with school constituent groups is largely limited to the use of e-mail. Additionally, those that would most likely be in concert with communicating via technology, the students, are the recipients of the least communication via these Web 2.0 tools. Given the importance of good communication in our schools, the ever expanding role of principal with the accompanying demands of time, and the rapidly growing availability of broadband and cellular connectivity, it appears that there are implications for those providing professional development, software developers, and those that provide funding for school administrator technology. Given that the principal is both the instructional leader and chief communicator in the school it seems imperative that more attention be given to providing training, accessibility, hardware, software, and clerical support to take advantage of all the possibilities for using technology to keep the school and community informed.

Perhaps this need for improvement via technology is a partial influence for the West Virginia Board of Education's proposed Policy 2460, *Educational Purpose and Acceptable Use of Electronic Resources, Technologies and the Internet.* A piece of the policy requires schools to make available to students appropriate participation in school-sponsored blogs, Wikis, Web 2.0+ tools, social networking and online groups (Proposed Policy 2460 section 6.2.e.2).

Recommendations

This case study revealed a somewhat limited used of technology-based communication tools by school principals with school constituency groups. Given these findings the following topics for future study can be recommended:

1. Determine the barriers to using technology-based communication with school constituent groups.
2. Determine the effectiveness of technology-based tools of communication with school constituent groups as perceived by members of the group.
3. Conduct a study with contiguous states using this survey instrument.

Summary of the Study

There are, no doubt, many reasons West Virginia school principals do not take full advantage of the technology available at their fingertips to communicate with the school's community. As some respondents indicated, West Virginia does have one of the lowest rates of broadband availability and that has a significant effect on what tools can be used. Many areas of the state have only dial-up service and the bandwidth needed to allow many of the Web 2.0 tools is simply not present. Access to broadband in the state is increasing as several plans, fueled by federal dollars, are in the planning stages and in some cases are being implemented. It would not be prudent, however, to blame all on the reluctance to adopt new technologies on the lack of access. Many areas of the state actually have excellent broadband coverage. Perhaps there are issues with the comfort level of principals using technology or possibly the expectations for

principals to improve test scores is so great that improving communication falls low on the priority list of many.

It is the researcher's opinion that many factors affect the use of technology by West Virginia principals. It is clear, however, that the capabilities of today's technology are not being used by principals to improve communication.

APPENDIX A

Marshall University IRB

Approved on:	12/25/11
Expires on:	12/25/12
Study number:	291964

Anonymous Survey Consent

You are invited to participate in a research project entitled *Principals and Technology: A Case Study of the Use and Perceived Effectiveness of Technology to Communicate with Constituents* designed to analyze and provide information related to the methods of communication principals use to communicate with their constituencies and the perceived effectiveness of these methods. The study is being conducted by Dr. Michael Cunningham and Bonnie A. Allman from Marshall University Graduate College and has been approved by the Marshall University Institutional Review Board (IRB). This research is being conducted as part of the dissertation for Bonnie A. Allman.

This survey is comprised of a survey containing eight (8) multiple choice questions and six (6) fill in the blank demographic information questions. Your replies will be anonymous, so do not indicate your name anywhere on the form. There is an unmarked self-addressed stamped envelope provided for your use. There are no known risks involved with this study. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw. If you choose not to participate, simply do not complete the instrument. If you so desire, you may choose to not answer any question by simply leaving it blank. Completing the survey indicates your consent for use of the answers you supply. If you have any questions about the study or in the event of a research related injury, you may contact Dr. Michael Cunningham at 1-800-642-9842 ext. 61912 or Bonnie A. Allman at 304-782-3071.

If you have any questions concerning your rights as a research participant you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey you are also confirming that you are **18** years of age or older.

If you lose the envelope that came with the survey, simply mail it to Bonnie Allman, RR 5, Box 314 Salem, WV 26246

APPENDIX B

www.marshall.edu

Office of Research Integrity
Institutional Review Board
401 11th St., Suite 1300
Huntington, WV 25701

FWA 00002704

IRB1 #00002205
IRB2 #00003206

December 25, 2011

Dr. Michael Cunningham
MUGC Education Department

RE: IRBNet ID# 291964-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Cunningham:

Protocol Title:	[291964-1] Principals and Technology: A Case Study of the Use and Perceived Effectiveness of Technology to Communicate with Constituents
Expiration Date:	
Site Location:	MUGC
Submission Type:	New Project APPROVED
Review Type:	

In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair for the period of 12 months. The approval will expire . A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Bonnie Allman.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral/Educational) Coordinator Michelle Woomer, B.A., M.S at (304) 696-4308 or woomer3@marshall.edu. Please include your study title and reference number in all correspondence with this office.

APPENDIX C

Your participation is important to this study. Please take a few minutes and mark the response below that best describes your communication practices. Thank you. Return this survey to Bonnie Ann Allman in the self addressed stamped envelope.

1. Please indicate which technology-based method you use the most to communicate with your staff:

- ❑ E-mail
- ❑ Blogs and/or Wikis
- ❑ Websites
- ❑ Social networking (Facebook, Twitter, Google Plus, etc.)
- ❑ Chat / Instant Message
- ❑ Other (Please Describe)_____

2. Please indicate your perception of the effectiveness of this technology-based method to communicate with your staff:

- ❑ Extremely effective
- ❑ Moderately effective
- ❑ Slightly effective
- ❑ Neutral—neither effective nor ineffective
- ❑ Slightly ineffective
- ❑ Moderately ineffective
- ❑ Extremely ineffective

3. Please indicate which technology-based method you use the most to communicate with other administrators:

- ❑ E-mail
- ❑ Social networking (Facebook, Twitter, Google Plus, etc.)
- ❑ Blogs and/or Wikis
- ❑ Chat / Instant Message
- ❑ Websites
- ❑ Other (Please Describe)_____

4. Please indicate your perception of the effectiveness of this technology-based method to communicate with other administrators:

- ❑ Extremely effective
- ❑ Moderately effective
- ❑ Slightly effective
- ❑ Neutral—neither effective nor ineffective
- ❑ Slightly ineffective
- ❑ Moderately ineffective
- ❑ Extremely ineffective

5. Please indicate which technology-based method you use the most to communicate with parents:

- ❑ E-mail
- ❑ Blogs and/or Wikis
- ❑ Websites
- ❑ Social networking (Facebook, Twitter, Google Plus, etc.)
- ❑ Chat / Instant Message
- ❑ Other (Please Describe)_____

6. Please indicate your perception of the effectiveness of this technology-based method to communicate with parents:

- ❑ Extremely effective
- ❑ Moderately effective
- ❑ Slightly effective
- ❑ Neutral—neither effective nor ineffective
- ❑ Slightly ineffective
- ❑ Moderately ineffective
- ❑ Extremely ineffective

7. Please indicate which technology-based method you use the most often to communicate with students:

- ❑ E-mail
- ❑ Blogs and/or Wikis
- ❑ Websites
- ❑ Social networking (Facebook, Twitter, Google Plus, etc.)
- ❑ Chat / Instant Message
- ❑ Other (Please Describe)_____

8. Please indicate your perception of the effectiveness of this technology-based method to communicate with your students:

- ❑ Extremely effective
- ❑ Moderately effective
- ❑ Slightly effective
- ❑ Neutral – neither effective nor ineffective
- ❑ Slightly ineffective
- ❑ Moderately ineffective
- ❑ Extremely ineffective

Please share some demographic information about yourself. (All information is confidential)

9. Please indicate the LOWEST grade level that your school serves? _____

10. Please indicate the HIGHEST grade level that your school serves? _____

11. What is your highest degree level (Used for WV Pay scale)? _____

12. What is your sex? _____Female _____Male

13. What is your age? _____

14. What is your job title? _____

15. ***Please share any comments you may have relevant to this survey:***_____

APPENDIX D

SURVEY COMMENTS

My communication with students is personal- no technology involved. teachers post grades on website to communicate with students.

Due to economic status of most of the families communication via technology is limited.

I only have dealt with ramifications of facebook use - ugh situations.

While technology is a great tool! It has just added another way/method/tool/responsibility. As a principal, it is hard to keep up with our responsibilities of daily running of a school, SAT/IEP meetings, student discipline, teacher issues, instructional leader, let alone county E-mail, E-mail, voice mail, etc. It is too much, technology has just added to work we have. It has not "replace" anything!!

In the process of installing flat panels at strategic locations for some effective student communications as well as video announcements.

The next three years will completely change how we use communication with teachers, students, and parents.

Employees were slow to use E-mails. I gave incentives ie. "1st person responding to this E-mail gets a prize." I gave away several $25 Wal-Mart Cards! It worked!

Questions 11 and 13 too personal.

County limits the amount of technology that can be used at school.

We use very little technology to communicate with students (other than technology tools in the classroom) due to the age of our student body.

I believe administrators need more PD on effective use of communicating via technology. Often administrators feel inadequate in the use for communication.

Access to technology is highly tied to SES and shapes your choice of communication method with parents and students.

Digital poverty keeps parents and students methods only effective for those who have technology. Also availability for mobile phones based service is an issue in this rural area.

We use Edline for communications with students and their parents. We are in a rural area and most of our students and even some staff do not have Internet access.

Our school is not wireless, but will be within the next few months.

Good luck1

E-mail is very effective the only problem is people who do not check E-mail. Student communication with school personnel is frowned upon and I don't think it is a good idea.

Limited technology in area which limits communication via E-mail, etc.

Don't use any technology-based method to communicate with students.

Easiest I ever had (survey) Good Luck, thanks.

E-mails are excellent only if they are read.

E-mail is the most effective die to speed and record keeping.

Our secretary keeps parents up-to-date through her facebook pages. We update our website regularly. I only E-mail with some of the parents of our very active/involved parents. Parents can use online to view grades.

Sometimes technology can be overwhelming I get too many E-mails requesting me to do stuff.

7/8 I don't communicate with students using technology.

Good Luck!

Good luck!

A principal's job is a people related job. Person-to=person is best method to ensure communication. I am probably the most techy principal in my county I still like face-to-face voice-to-voice. It's my job.

I would love for parents to E-mail, but they want that instant feedback. They need you to "hear" them.

We have limited technology in regards to communications, face-to-face is primary means.

Many parents in our area do not have internet service making the old fashion phone call the tool of choice.

The amount of professional development offered on these various communications methods. It takes time to learn these methods effectively.

I know technology is here and will be here for a long time and I do and know how to use it. However, I believe the human touch is vital in communicating.

E-mail is used infrequently with parents since not very many have Internet access. Website information and my E-mail are sent home each week on newsletters.

Technology is only effective when both parties utilize it. Even though staff members are required to check theirs daily some do not. Therefore, the technology is effective and useless if time sensitive information is given. Overall, it is very helpful way to communicate.

We do have a parent listserv but have found that our low SES parents (67% in our school) will not share their E-mail with us.

Technology is still not a viable option in our school. Also our students are mostly too young for technology some 4th graders use FR, but not a larger %.

Some problems with students having appropriate technology at home die to rural and 70% low SES.

Was surprised the survey wasn't conducted electronically.

Thank you come visit us at Roosevelt Elementary in Mason Co.

Small rural school-access/availability is an issue for our parents.

Texts are a quick way for a teacher to call me to a classroom for a student without the student being aware. It can also give them quick answers to questions.

50% students no Internet at home; The school Title 1 high poverty and drug related issues.

I think this is ludicrous that you sent a paper survey to ask questions about technology. Ever heard of Zoomrang or Google survey.

Principal 50 years in only 2 schools.

Our school has a high rate of low SES and most homes do not have Internet.

Bandwidth prohibit our use of IM and social networking is blocked in school.

Technology can be a great tool, but we will always have a place for face-to-face communication if we are to build trusting relationships.

Sometimes technology can make things impersonal or a tone can be read in an E-mail or message. I prefer to have phone conversations with people more personal connections.

With parents, I feel teachers and administrators should refrain from being friend on facebook, too many misunderstandings could occur.

I don't find it appropriate to communicate with students via technology.

I think that technology is extremely useful and we do need to use it more frequently –catch up with students.

While E-mail is quick, easy way to communicate not everyone checks it/responds in a timely manner. Ideas can also be misunderstood.

We are somewhat limited in communication with parents by their technology.

Yellow notes are boxes with a typed message we can send from the office to a classroom or from a classroom to classroom. It appears instantly on the computer screen of the receiver.

We are going too far from face-to-face, person-to-person communication. Technology has its place but not to the level I am seeing today as far as communication (personal) is concerned.

My staff is older and not accustom to checking E-mails several times a day. This is a challenge.

Most communications with parents and students is through memos and newsletters.

Older staff do not check E-mails because of their limited knowledge, making that communication ineffective.

Students do not use E-mail accounts at the school.

I love technology but when it comes to inter-personal relationships it is always best face-to-face.

When new technology comes about training is a necessity.

Would use technology- such as texting – if it was available to principals to use through the school system.

We are an outlying school and have only recently gotten wireless service. Service has been very unreliable so meeting communication via technology has not been an option.

Telephone omitted as option. No question about frequency of use.

Our student population is in an economically depressed area- using technology –based methods of communication is out of a lot of people's reach.

If this is the Bonnie Ann Allman that use to work in Wirt Co., how are you?

Our county blocks facebook from our system.

Technology is a powerful tool when it works.

I believe we rely too much on E-mails and other technologies rather than just talking to people.

Hope this helps!

Text message is also used effectively with staff.

Don't use computers very much!!

We are a Title 1 school with 78% students on F/R lunch.

APPENDIX E

PAY LEVEL					
		FREQUENCY	PERCENT	VALID PERCENT	CUMMLATIVE PERCENT
Valid	MA/MS	29	9.5	9.7	9.7
	MA +15	8	2.6	2.7	12.3
	MA + 30	47	15.4	15.7	28
	MA + 45	196	64.3	65.3	93.3
	MA + 60	2	.7	.7	94
	MA + 70	2	.7	.7	94.7
	Ed. S.	2	.7	.7	95.3
	Doc	14	4.6	4.7	100
	Total	300	98.4	100	
Missing		5	1.6		
Total		305	100		

POSITION				
	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Principal	289	94.8	95.4	95.4
Teacher/ Principal	3	1.0	1.0	96.4
Asst. Principal	10	3.3	3.3	99.7
Other	1	.3	.3	100
Total	303	99.3	100	
Missing	2	.7		
Total	305	100		

SEX				
	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Female	161	52.8	53.5	53.5
Male	140	45.9	46.5	100
Total	301	98.7	100	
Missing	4	1.3		
Total	305	100		

Mean age of respondents was 50.85

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