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Use of Social Media as a School Principal

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USE OF SOCIAL MEDIA AS A SCHOOL PRINCIPAL

A Dissertation

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ABSTRACT

The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Data from the national 2009 report, *A Survey of K-12 Educators on Social Networking and other Content Sharing Tools*, were used to compare national results and data collected from Indiana. A survey was also created to analyze the use of social media among principals in the state of Indiana. The survey collected data from principals, indicating age, gender, locality, educational experience, social media use, and social media preferences. Lastly, the data were used to determine if there is a comparison between the state of Indiana results and the 2009 national results. The survey provided data to determine if social media use has increased since the 2009 national report. The research design involved a population of 1,931 Indiana school principals. Use of social media as a school principal was collected in a 16-item survey. Statistical analysis of the data included descriptive analysis for selected items, means, and standard deviations. A one-way ANOVA was used to test all 12 null hypotheses. Significance was identified at the .05 level. In all, 356 Indiana school principals responded to the survey instrument. As a result of the analysis, there were no significant differences among gender, experience, age, enrollment, and locality when using social media for school communication. There was a significant difference in school categories when social media was used for communication. High schools responded in favor over elementary and middle school principals when using social media for school communication. There was a significant difference in women versus men when social media are used for professional development.

Women responded in favor over the men for social media use as professional development.

There were no significant differences in experience, age, enrollment, school category, or locality when using social media for professional development.

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TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGEMENTS	v
LIST OF TABLES	xi
INTRODUCTION TO THE STUDY	1
Statement of the Problem	3
Purpose of the Study	4
Research Questions	4
Null Hypotheses	6
Definition of Terms	7
Limitations of the Study	8
Delimitations.....	9
Significance of the Study	9
REVIEW OF LITERATURE	11
History of Social Media	12
Digital Learners	15
21st Century Skills	17
Social Media in Schools	20
Social Media National Study Results	21
Educational Leadership	23

ISLLC Standards	26
METHODOLOGY	30
Research Questions	30
Null Hypotheses	32
Design	33
Participants	33
Recruitment	33
Location of Study	34
Instruments, Research Materials, and Records	34
Procedures	34
Principal Survey	35
Survey Reliability	35
Statistical Analysis	36
Summary	37
ANALYSIS OF DATA	38
Descriptive Data	38
Respondent Characteristics	40
Findings and Analysis	45
Null Hypothesis 1	46
Null Hypothesis 2	46
Null Hypothesis 3	47
Null Hypothesis 4	48
Null Hypothesis 5	49

Null Hypothesis 6	50
Null Hypothesis 7	51
Null Hypothesis 8	52
Null Hypothesis 9	53
Null Hypothesis 10	54
Null Hypothesis 11	55
Null Hypothesis 12	57
Research Question 13	58
Research Question 14	58
SUMMARY OF THE STUDY	60
Discussion of Findings	61
Summary of Descriptive Data	62
Principal Preference of Social Media Sites	63
Indiana Principals Versus the National Trend in Social Media Use	63
Summary of Hypotheses Testing	65
Summary of the Study	73
Implications	76
Research Recommendations	81
REFERENCES	83
APPENDIX A: SURVEY TO BE SENT TO INDIANA PRINCIPALS	87
APPENDIX B: EMAIL TO PRINCIPALS	92
APPENDIX C: FOLLOW UP EMAIL TO PRINCIPALS	94

APPENDIX D: CONSENT TO PARTICIPATE IN RESEARCH USE OF SOCIAL
MEDIA AS A SCHOOL PRINCIPAL..... 95

APPENDIX E: PERMISSION TO USE NATIONAL SURVEY96

APPENDIX F: NATIONAL SOCIAL MEDIA SURVEY RESULTS97

LIST OF TABLES

Table 1. Respondents by School Category	41
Table 2. Respondents by School Locality.....	42
Table 3. Frequency of Professional Use of Social Media.....	43
Table 4. Frequency of Personal Use of Social Media.....	43
Table 5. Social Networking Site for Personal Use	44
Table 6. Professional and Education Social Networking for Professional Use.....	45
Table 7. Mean and Standard Deviation for Gender on Social Media Use for School Communication.....	46
Table 8. Mean and Standard Deviation for Educational Experience on Social Media Use for School Communication.....	47
Table 9. Mean and Standard Deviation for Age on Social Media Use for School Communication.....	48
Table 10. Mean and Standard Deviation for Gender on Social Media Use for Professional Development.....	49
Table 11. Mean and Standard Deviation for Educational Experience on Social Media Use for Professional Development	50
Table 12. Mean and Standard Deviation for Age on Social Media Use for Professional Development.....	51

Table 13. Mean and Standard Deviation for School Enrollment on Social Media Use for School Communication.....	52
Table 14. Mean and Standard Deviation for School Category on Social Media Use for School Communication.....	53
Table 15. Mean and Standard Deviation for School Locality on Social Media Use for School Communication.....	54
Table 16. Mean and Standard Deviation for School Enrollment on Social Media Use for Professional Development	55
Table 17. Mean and Standard Deviation for School Category on Social Media Use for Professional Development	56
Table 18. Mean and Standard Deviation for School Locality on Social Media Use for Professional Development	57
Table 19. Social Networking Site for Personal Use	64
Table 20. Professional and Education Social Networking for Professional Use.....	65

CHAPTER 1

INTRODUCTION TO THE STUDY

Technology has created a way for people to connect all over the globe. The means of connecting is through social media, which widely began with students. As time moves through the 21st century, the use of social media is connecting many more generations of individuals and not just students. Social media are a means to share information and to connect with family, friends, neighbors, and colleagues. Society is connected more now than ever before (Boyd & Ellison, 2008).

As technology increases the ability to connect, education is coming under public scrutiny. Public schools are faced with public perceptions based on school accountability, loss of students to private or charter schools, and not preparing students for the 21st century. Social media play a part in the many factors that are currently changing education. Schools are starting to market themselves, which requires current means of communication (Ferriter, Ramsden, & Sheninger 2011). Technology provides the opportunity for schools to teach 21st century skills, promote educational success, offer factual information, and communicate with parents faster than traditional media. Social media is also a means to demonstrate real-time learning and student achievement; however, technology is only as good as the leader feels comfortable implementing the tool. Digital immigrants—adults who were born without technology—may not be as proficient using social media to communicate the successes of public education. This is because

they are not familiar with the technology tools or do not trust sharing information in a social networking atmosphere (Prensky, 2001a). Schools are starting to see the shift in digital immigrants versus digital natives, children born into a world of technology, due to the generation gap beginning to close. Even though parents are more comfortable with the use of social media, principals are predominately digital immigrants.

This study looked at the practices used for social media within a school setting. Many educators are considered digital immigrants who are educating digital natives (Prensky, 2001a). It is evident that the digital natives are using technology, as opposed to the simple pen and paper, to expand their minds and curiosity. Students are familiar with having information at their fingertips, but in a school setting they seem to take a step back in time (Jacobs, 2010). Parents, patrons, and community members are adjusting faster to social media because their daily lives involve communication via technology. Social media are venues where educators can connect with the digital natives and provide meaningful instruction. By using social media, educators and students can continue class lessons beyond the traditional school day. Administrators alike can also communicate to a larger audience using social media in lieu of paper newsletters, phone messages, and paper fliers (Ferriter et al., 2011). The traditional form of email will only connect the school to a chosen audience. In a society where schools compete for students, social media are great vehicles for promoting school excellence, along with using social media for professional development resources. Prior to social media, meaningful research would take an extended period of time. Now the resources are endless and timeless (Jacobs, 2010).

This study will be duplicating part of a national 2009 report, *A Survey of K-12 Educators on Social Networking and Other Content-Sharing Tools*. The national report comprised both a quantitative and qualitative study, which included school administrators, librarians, and teachers.

The study looked at Indiana principals and the use of social media as educational tools. With permission from the authors of the national 2009 report, *A Survey of K-12 Educators on Social Networking and Other Content-Sharing Tools*, a few questions from the school administrator portion was used. A comparison was made to determine how the Indiana principals align with the national principals in 2009. The national studies concluded that social networking sites have value in education and were instrumental in professional development. Other key points discovered in the study included educators finding value in social media and their use compared to those who did not find value in social media. Those who have joined social networking sites were more in favor of joining, as opposed to those who have not joined a social networking site. Also, schools need to expose more educators to technology if social networking is to take place within the school setting (*School Principals and Social Networking in Education*, 2010). Social media are tools that need to be studied because it is not being incorporated with daily instruction. Students live in the 21st century, but their classrooms are not supporting the current technology (Jacobs, 2010). The study helped determine if the infusion or lack of infusion of social media are due to a generational gap among principals or their constituents.

Statement of the Problem

School principals are faced with the challenges of promoting their schools and designing a public persona that entices families to attend their schools. Society has shifted the way families can choose a school, and there are more data to aid in those decisions. Principals are faced with the challenge to communicate their school into an exciting opportunity. One way to promote a public school is to use social media (Ferriter et al., 2011). As principals attempt the shift into 21st century communicating tools, there is little research that supports administrators are using social media.

The current research indicates that public education is slow to implement social media, and that is due to the generational gap with technology (*School Principals and Social Networking in Education*, 2010). This may be due to the large number of principals who are digital immigrants, and they fail to provide daily opportunities for digital natives (Prensky, 2001a). This study determined if principals in Indiana are implementing 21st century techniques in reaching their patrons. The conclusion showed whether there is a correlation to age and the implementation of social media as a communication tool. The results were compared to the national results released in 2009.

Purpose of the Study

The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Data from the national 2009 report, *A Survey of K-12 Educators on Social Networking and other Content Sharing Tools*, was used to compare national results and data collected from Indiana. A survey was created to analyze the use of social media among principals in the state of Indiana. The survey collected data from principals, who provided their ages, genders, localities, educational experience, social media use, and social media preferences. Lastly, the data were used to determine if there is a comparison between the Sstate of Indiana results and the 2009 national results. The survey provided data to determine if social media use has increased since the 2009 national report.

Research Questions

This quantitative study focused on 14 questions.

1. Are there significant differences across gender groups on usage of social media for communication?

2. Are there significant differences across educational experience groups on usage of social media for communication?
3. Are there significant differences across age groups on usage of social media for communication?
4. Are there significant differences across gender groups on usage of social media for professional development?
5. Are there significant differences across educational experience groups on usage of social media for professional development?
6. Are there significant differences across age groups on usage of social media for professional development?
7. Are there significant differences across school enrollment on usage of social media for communication?
8. Are there significant differences across school categories on usage of social media for communication?
9. Are there significant differences across locality on usage of social media for communication?
10. Are there significant differences across school enrollment on usage of social media for professional development?
11. Are there significant differences across school categories on usage of social media for professional development?
12. Are there significant differences across locality on usage of social media for professional development?
13. Do school principals prefer one social media site to another?

14. Do school principals in Indiana follow the national trend in social media use?

Null Hypotheses

H₀1: There are no significant differences across gender groups on usage of social media for communication.

H₀2: There are no significant differences across educational experience groups on usage of social media for communication.

H₀3: There are no there significant differences across age groups on usage of social media for communication.

H₀4: There are no significant differences across gender groups on usage of social media for professional development.

H₀5: There are no significant differences across educational experience groups on usage of social media for professional development.

H₀6: There are no significant differences across age groups on usage of social media for professional development.

H₀7: There are no significant differences across school enrollment on usage of social media for communication.

H₀8: There are no significant differences across school categories on usage of social media for communication.

H₀9: There are no significant differences across locality on usage of social media for communication.

H₀10: There are no significant differences across school enrollment on usage of social media for professional development.

H₀11: There are no significant differences across school categories on usage of social media for professional development.

H₀12: There are no significant differences across locality on usage of social media for professional development.

Definition of Terms

Many of the terms used in this study are defined to ensure consistency throughout the results.

A school principal refers to the leader of an educational setting that includes children in grades K-12. The school administrator is the person in charge and has the ability to make key decisions for the entire school. The leader also is responsible for leading the school in curricular changes, financial changes, and professional development (Marzano, Waters, & McNulty, 2005).

A digital native refers to a child born in a generation where he or she knows no other surroundings without technology. Children who are born in the 21st century are considered digital natives. Digital natives are speakers of the digital language of computers, video games, and the Internet (Prensky, 2001a).

A digital immigrant refers to someone who was born prior to the digital creation and has experience with both spectrums of society. The digital immigrant has been introduced to technology, yet struggles with the use, incorporation, and understandings of the importance of technology. These individuals often have conflict with technology due to their lack of experience (Prensky, 2001a).

Social media refers to a connection of web-based sites that allow users to share information about them and to create a partnership with other like users. The user can connect

with other individuals around the globe and maintain a local network group (Boyd & Ellison, 2008).

Limitations of the Study

1. Limited control on demographics and personal experiences may have hindered the survey results. Due to mobility of principals, the use of social media may be dependent on access to technology.
2. The community social economic status may have hindered the survey results because principals may not have been driven to use social media. If the community standard influences the technology used by schools, this may impact the use of social media among administrators.
3. School corporation size may also have impacted the results due to the number of school principals. If the networking support for administrators varies, the commitment to use social media may not be present. If the support group is larger and colleagues embrace social networking, then one may be encouraged to join social media. School corporation size may also impact the amount of social media in schools, which can hinder the use among principals. If social media sites are blocked or not supported, school administrators will be discouraged to embrace communication and professional development through social media.
4. The participants to be surveyed were chosen from the Indiana Department of Education database. The database is comprised of all principals in the state of Indiana. Due to not having control of the IDOE records, accuracy of the principal database cannot be completely assured.

Delimitations

1. The survey was provided only to school principals in the state of Indiana.
2. The study included two questions from the national report, *A Survey of K-12 Educators on Social Networking and other Content Sharing*.
3. The survey only focused on social media as an educational tool.
4. The comparison with the national report, *A Survey of K-12 Educators on Social Networking and other Content Sharing*, surveyed other subgroups along with school administrators. The size of the national administrative group may not be reflective of the actual school administrator population.

Significance of the Study

There is minimal research on the use of social media among school administrators. The national report, *A Survey of K-12 Educators on Social Networking and Other Content Sharing*, that was co-sponsored by edWeb.com, IESD, MCH Strategic Data, and MMS Education was performed in 2009. Both Facebook and Twitter, two of the social media giants, were fairly new in the social sharing venue. Facebook was launched in 2003 and Twitter was launched in 2006. In the current year of 2012, both Facebook and Twitter dominate the social network arena, yet there are little data to show how school administrators use these tools.

This study showed that the use of social media is generational and will correlate to the years of experience among the users. The study also brought to light the implementation of social media among Indiana principals compared to those across the United States. The results of this study can be used to better plan professional development for school administrators, the dollars spent on technology, market of public schools, and determine if social media are an effective means to promote education. Schools have been forced into the business model and

have to be better equipped to communicate what they have to offer. This study showed whether school administrators are using social media to communicate and participate in professional development.

Social media are a new form of communication and delivery system. Social media are changing the way students learn, communicate, and connect with the global society. This powerful tools have the potential to remove all boundaries traditionally established in education. Social media can allow classroom instruction to interact across the globe, and they can also impact the level of communication established by school administration. When social media are used correctly, there may be an immediate impact on the educational process.

The study is important because there is a need to evaluate how educators are going to be able to support 21st century students. Currently, education is in a cultural shift with technology. Digital immigrants are educating digital natives and the educational environment must change to meet the needs of digital natives. This study provided evidence of the current use of social media in Indiana schools.

CHAPTER 2

REVIEW OF LITERATURE

There has been a call for education reform and to focus on 21st century skills. This goal is derived from the global market and the competition around the world (Wehling, 2007). Policy has lacked supporting education first, rather focusing on governance and ways to reform education. The outcomes have forgotten the human factor and what motivates an individual (Wehling, 2007). Even though the education landscape can appear defeated, educators still have an amazing opportunity to impact the lives of many. Through the use of technology, schools can reach across the globe to collaborate with other nations and to bridge the gap between educational systems (Wehling, 2007).

The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Twenty-first century education impacts the digital natives, yet the educator and leaders are digital immigrants (Prensky, 2001a). In addition to educating a different learner, school accountability has been brought to a new level. Literature has shown that administrators do not embrace the new forms of social media, but the Web 2.0 tools make communicating to all stakeholders easier and more effective. Unfortunately, education is not keeping pace with the changing facade of technology and society. This study looked at whether administrators embrace technology, specifically social media. A focus was on communication within and out of the school structure. Administrators need to be using social media as a way to

promote excellence, provide professional development, and connect with all school stakeholders (Ferriter et al., 2011).

By using social media, educators, and students can continue class lessons beyond the traditional school day. Administrators alike can also communicate to a larger audience using social media in lieu of paper newsletters, phone messages, and paper fliers (Brock & Bennett, 2001). The traditional form of email only connects the school to a chosen audience. In the society where schools compete for students, social media is a great vehicle for promoting school excellence. Administrators can also use social media for professional development resources. Prior to social media, meaningful research would take an extended period of time. Now, the resources are endless and timeless.

Are teachers incorporating this powerful tool within their classrooms? Are administrators using social media to their advantage? The assumption was that social media has not been incorporated in all classrooms or schools, nor does it serve much of an educational purpose. Reaching digital natives in their natural form of learning may benefit schools (Gardner, 1995). The literature review looked at the history of social media, digital learners, 21st century skills, social media in schools, and educational leadership. Social media are growing three times the rate of any other facet within the world of the Internet (Nielsen, 2009).

History of Social Media

Social network sites (SNSs) have attracted millions of users who have incorporated SNSs into their daily lives (Boyd & Ellison, 2008). These sites have very similar technological features, but the cultures within the networks are very different. (Boyd & Ellison, 2008). Before sites evolved, such as Facebook, Twitter, MySpace, and LinkedIn, many other forms of social

media took place. Going back to 1969, dial-up was used as the first commercial form of the Internet (Curtis, 2011).

According to Ward (2011), “Social media is a type of media that expedites conversation as opposed to traditional media” (para. 2). This type of use was how the government communicated prior to the general public. The first original form of social media was the telegraph (Adams, 2011). Networking is something that forms a relationship, which is often initiated by strangers (Boyd & Ellison, 2008). The telegraph was used to communicate around the globe, in which the government was able to retrieve and share military information. Now, social media has evolved and is effective because it is a blend of technology and social interaction (Adams, 2011). Over the course of time, we have moved from telegraph to a more efficient and timely use of technology. The first email was sent in 1971 and was between two computers sitting next to each other (O’Dell, 2011). This was followed by bulletin board systems (BBS) in 1978. The BBS were used to exchange data over the phone lines with other individuals (O’Dell, 2011). There was a large gap between the first email and the creation of social network. Most of the technology was used for the government work until 1984. Prodigy online service was introduced and became the second largest provider in 1990 (Curtis, 2011). This creation paved the way for America Online (AOL). AOL opened in 1985, which allowed users to browse the Internet and exchange emails with other users (Curtis, 2011). From 1985 to 1994, AOL was dominant in regards to Internet use. In 1994, one of the first social networking sites evolved; it was called Geocities (O’Dell, 2011). This was created to allow users to develop their own web sites. As the use of the Internet and technology advanced, more sites evolved, which included blogging, sharing within and out of network groups, and geographical locations (Boyd & Ellison, 2008).

In 1997, blogging began with the site SixDegrees.com (Boyd & Ellison, 2008). This site allowed the users to create their own profiles, list friends, and surf for more friends (Boyd & Ellison, 2008). Currently, the most common site for social media is Facebook. This site did not evolve until 2004, and it was initially developed for Harvard University. Facebook was originally known as Friendster (Curtis, 2011). From 1997 to 2001, there was another push of social network sites and community tools that allowed individuals to create profiles and to connect with friends (Boyd & Ellison, 2008). Since 2001, there has been at least one major advance in social media per year, and the frequency increased as 2011 approached. In 2009, Facebook was recognized as the most used social network worldwide. This site had more the 200 million users in 2009 (Curtis, 2011). Another indication that technology is very prevalent is that Google has seen one trillion unique web sites since 2009 (Curtis, 2011). Moving forward, Internet and social network usage increased dramatically. In 2010, the Internet surpassed newspapers, and Facebook had more than 400 million users. Social media in 2011 is accessible from almost any part of the world and is a major part of one's daily life (Curtis, 2011). An example of social media growth in 2011 is "550 million people on Facebook, 65 million tweets sent through Twitter, and two billion video views on YouTube. LinkedIn has 90 million professional users" (Curtis, 2011, para. 31). Three of the major sites for social media are dominating the globe in connecting humans to each other. Children learn from each other and especially when they gather in groups (Brooks-Young, 2010). The social environment of gathering in places has been reduced because of loitering laws, noise, and taking over public spaces. Children have now turned to social networking spaces to gather in groups and connect with each other (Brooks-Young, 2010).

Characteristics that are important to make social media accessible are making sure it is approachable, accessible, usable, timely, and eternal, yet changing (Adams, 2011). Social media has the ability to reach audiences of all magnitudes. Advances from sending smoke signals to tweeting presidential meetings have taken society to a global level of communication (Adams, 2011). There are times that something is referred to as going *viral*. This term is derived from the medical field of a virus. The topic noted in social media has gone viral or spread to many humans worldwide and is a reason why news travels fast (Ward, 2011). Lives have changed forever because of social media. Information is readily available and feedback is immediate. “Social media is an integral part of modern society” (Adams, 2011, para. 2).

Digital Learners

Digital natives are students who think and process information differently than generations prior (Prensky, 2001a). These natives are being taught by digital immigrants, which are individuals not born into the world of technology (Prensky, 2001a). Students today process more information and operate with different thinking patterns. Compared to digital immigrants, the natives turn to the Internet first for resources. The immigrant tends to use what was first learned. When seeking information, the immigrant will use the Internet second as their resource to information (Prensky, 2001a). Since 1974 kids have been playing video games, which impacted the attention span of learners. Baby Boomers were raised with television, and prior generations were exposed to literature (Prensky, 2001b). This generation is exposed to a hypertext society, which are short spurts of information and a higher rate of exposure (Prensky, 2001b). Another name for digital natives is “The Net Generation” (Windsor, 2009, para. 1). The digital natives are being raised differently, which means their parents are providing different forms of socialization (Prensky, 2001a). Children are constantly looking for immediate

gratification and satisfying rewards (VanSlyke, 2003). Parents of the digital natives, digital immigrants, are used to printing documents to review and edit, as opposed to using the online resources (Prensky, 2001a).

Society is changing so fast that the digital native adapts to the changing society faster than the digital immigrants around them. This process has happened in rapid speed over the last decades of the 20th century (VanSlyke, 2003). The human brain changes so fast and adjusts to the information it receives. This is why the students have acquired many different learning styles (Prensky, 2001b). Students in the 21st century have more access to technology and information than ever before. Students of the 21st century already know how to upload and download digital media, text and instant message using mobile devices, communicate through social networking, manipulate videos, create blogs, launch podcasts, and engage in virtual video games (Jacobs, 2010). This disparity between access of information and generational gaps creates disconnect among students and teachers (Koutropoulos, 2011).

Technology is not something educators can ignore. Educators will need to find a way to incorporate technology into their classes, because it will be the first location students will use to gather information (Prensky, 2001a). One aspect that has not changed in education is the diverse type of learners. Even though teachers are educating digital natives, the educator cannot forget that each child comes from a different background (VanSlyke, 2003). Technology may not be the only answer to meeting the needs of the students. For the digital native, a differentiated lesson will still need to be in place due to the inequalities of home environments (VanSlyke, 2003). The students will be surrounded by technology in their lives; however, the exposure to actual technology use will differ from each child (VanSlyke, 2003). Multi-tasking is the new normal for students. This has been developed over time through the use of web surfing, video

games, and short bursts of information (Jacobs, 2010). The learner is wired differently, and it is common for them to be viewing multiple web pages at a time. This can be done from a home computer, school laptop, tablet, or a mobile device (Prensky, 2001a). Even though students are familiar with many modes of technology, they do not understand how to decipher from Internet fact or fiction (Jacobs, 2010). Children today are exposed to new facets of technology that their parents did not have while growing up. They are being socialized in a completely different manner (Prensky, 2001b). Educators cannot ignore the multi-media modes students use. It is the nucleus of a student's life (Jacobs, 2010).

21st Century Skills

According to author Brooks-Young (2010), "Twenty-first-century skills comprise both content knowledge and applied skills that today's students need to master and thrive in a continually evolving workplace and society" (p. 6). The most important concept educators need to remember when educating in the 21st century is that the content should not be replaced by technology. The modern tools and strategies should enhance the curriculum (Brooks-Young, 2010). When incorporating Web 2.0 into the curriculum, social media can be used to enhance the read and write medium (Osborne, 2011). Using Web 2.0 as a 21st century tool, there will be more collaboration and user-generated information. The user will be able to personalize his or her material, which will open up collaboration and a broader scope of material (Osborne, 2011). To be an effective 21st century leader, educators must possess skills such as anticipating the future, being a lifelong learner, fostering peer relationships, teaching and assessing all levels of learners, and discerning effective versus non-effective technology (Standbury, 2011). As educators, the classroom needs to embrace the 21st century learning styles and not ban the technologies students use (Jacobs, 2010).

One organization that has created a tool for technology best practice is the International Society for Technology Education (ISTE). This organization created National Educational Technology Standards (NETS). ISTE was on the forefront of creating technology standards because states across the country were beginning to require schools to introduce technology in the classroom (Roblyer, 2000). These standards are being used across the country as the standard for all schools. The ISTE created the NETS for administrators in 2009. The pillars to the ISTE standards are visionary leadership, digital-age learning culture, excellence in professional practice, systemic improvement, and digital citizenship. ISTEP has a vision to promote 21st century learning through the NETS for administrators.

Visionary leadership requires administrators to be inspirational while leading and implementing a comprehensive integration of technology (ISTE, 2009). Throughout an organization, leaders inspire excellence among colleagues and assist in motivating transformation. A shared vision for digital-aged resources is needed to achieve 21st century skills. Visionary leaders incorporate technology plans that have been closely aligned to the organizations' vision and mission. The plan is focused on the outcomes and all levels of integration. The leaders embrace technology in all aspects of their vision (ISTE, 2009).

Leaders who promote and sustain digital learning develop a culture of educators who embrace technology (ISTE, 2009). A rigorous and engaging environment of digital learning creates a 21st century culture. Educational leaders model and promote technology that is effective and beneficial. They provide learning environments that embrace technology and include resources to meet all learning needs. Educational environment embraces global learning and connections, along with having educational leaders who encourage creativity and digital collaboration (ISTE, 2009).

Innovative educators empower their students and colleagues to incorporate new technologies and digital resources. The learning environment supports a collaborative atmosphere (ISTE, 2009). Educators need professional development, time, and resources to better incorporate technology into the classroom. Educators also engage in electronic communities to collaborate and share new technology. Communication among peers is most effective through the use of digital tools. Modeling 21st century skills to colleagues and students enhances the incorporation of technology integration. Using 21st century tools ensures the educator remains connected with current trends and technology (ISTE, 2009).

To achieve systemic improvement, school administrators must provide leadership in areas of digital literacy. Educational leaders improve their organizations by modeling and using the resources within their structure. Digital leadership promotes using technology in many aspects of the educational setting (ISTE, 2009). Effective leaders ensure they are purposeful in their decisions. The decisions are made through the collection of data and collaborating with essential personnel. By using a methodical process, continuity is developed and systemic improvement can be made to the organization (ISTE, 2009).

Digital citizenship is essential to be effective as a 21st century school leader. School administrators must understand all aspects of the digital era. New technology brings additional responsibilities that require an understanding of social, legal, and safety issues. The technology era continuously changes and a digital citizen is responsible for maintaining a safe environment (ISTE, 2009). Educators encourage young digital citizens to practice safe use while incorporating 21st century skills. A digital citizen has a new responsibility and one that can have a lasting impression if used appropriately or inappropriately. Digital citizenship can be enhanced through positive classroom experiences (ISTE, 2009).

Social Media in Schools

“Is your curriculum replacing older methodologies with new tools for communicating and sharing? Or is the use of technology an event?” (Jacobs, 2010, p. 1). Social media has been entering schools through student interest and is now becoming an integral part of classroom instruction and school marketing. Schools still attempt to remove mobile devices from the classroom because they are seen as a distraction, where others feel it is because of fear (Wheeler, 2012). Social media is not limited to Facebook or Twitter. Social media is any type of media space that is sociable and includes many facets of Web 2.0 (Osborne, 2011). In the school setting, students are beginning to use the tools not only for communicating with friends, but also for class engagement. Fear is an emotion adults convey over the topic of social media (Brooks-Young, 2010). Adults feel children waste time on social media and are subject to online predators and privacy issues (Brooks-Young, 2010). Along with fear of online safety or not knowing the positives of using the Internet, educators have concerns with trusting students who use the Internet to verify the facts and information provided. When given the opportunity via mobile device or student computer, students like to explore taking the class instruction to an entirely new level. This act of exploring has opened a new element to classroom instruction (Wheeler, 2012). Teachers and administrators should not remain closed off, but should allow social media into the classrooms. Schools should begin to embrace the technology students use every day of their lives (Wheeler, 2012). Students are not learning how to navigate technology and the Internet through school. Students enter the school building already knowing how to use technology to their advantage (Jacobs, 2010). This creates a clash in the learning environment versus the tools students use for their daily interactions (Jacobs, 2010).

According to a national study, for 54% of principals surveyed, the principal was less likely to join a social network. However, the younger the participant, the more likely he or she would join a social network (*School Principals and Social Networking in Education*, 2010). The same study demonstrated that social networking is an advantage to share ideas and information among other educators. Social media is also a wealth of information and resources that make education rich with content and is also a central location for dialogue and collaboration (*School Principals and Social Networking in Education*, 2010). There is a concern among administrators for a negative impact or feedback from patrons. Administrators feel the more they open themselves up to public opinion, the feedback may not be as positive, which is an element of fear towards social media (*School Principals and Social Networking in Education*, 2010). Using social media in schools can dispel the fears of administrators once the outreach has been created. Since social media can be immediate, administrators have more control of promoting a successful school environment (Ferriter et al., 2011).

Unfortunately, building-level administrators may not have control over whether social media can be used by students within their buildings. School corporations may limit the sites that are accessible by students (Osborne, 2011). Administrators who want to embrace the 21st-century learning environment are hampered by the resources provided (Osborne, 2011). Recently surveyed principals agreed that social media use is minimal within the learning environment because of policies, equipment, and blocked sites for students (*School Principals and Social Networking in Education*, 2010).

Social Media National Study Results

In a partnership between edWeb.net, IESD, Inc., MMS Education, and MCH Inc., a study was conducted entitled *School Principals and Social Networking in Education: Practices,*

Policies, and Realities in 2010. The purpose of the study was to collect the perceptions and attitudes on social media in the role of school administrators. According to this study, schools are the last hold outs to embrace social media. This multi-faceted study involved more than 1,200 educators that included principals, librarians, and teachers. The quantitative study was published in 2009, and the qualitative study was completed in 2010. Key findings from the quantitative study indicated that most principals find value in social networking within the school setting. In addition, educators who have used social networking are found to be more supportive of the tool. Additionally, educators who joined a social network versus those who did not, expressed a strong preference in whether to be a part of the social network or not. Lastly, for educational settings to embrace the larger use of social network, school corporations will need to expose more instructional leaders to social media (School Principals and Social Networking in Education, 2010). Among administrators, the study found social networking to be used mostly for communicating and collaborating with colleagues outside the district. Half of the responses were more towards communicating internally with colleagues; however, several administrators indicated using social media to engage with patrons, students, and their local communities. Administrators did express a concern for parent complaints or negativity when incorporating more social media within the school setting. Additional concerns also mentioned were misuse of social media, sharing of private information, and a breach of school security. When using social media or other Web 2.0 elements, some areas found during the study as barriers included community standards and funding. It was also noted that a lack of support staff and little time for professional development created additional barriers.

The conclusion of the study found that the majority of educators found value in social networking. Even though there were concerns, they did not outweigh the positive impact on

education or the components to leadership traits. The study also validated that those educators who joined a social network were most likely to be positive, as opposed to those who did not experience social networking. The majority of those who have joined were younger in age, which demonstrated a generational component to social media. Of those studied, many found social networking as a strong tool for professional development. The study suggested administrators need to embrace social networking and Web 2.0 components. They need to bring professional development addressing the use of social media to their teachers. The study indicates education is moving slower on the realm of social media, but more educators are starting to use networking to development partnerships around the globe (*School Principals and Social Networking in Education*, 2010).

Educational Leadership

Effective leadership has great success when communication is a focus (Ferriter et al., 2011). Findings in a study that focused on effective leadership displayed six truths of effective leadership (Gardner, 1995). The first truth was to focus on the leader's belief or story, which was a skill to be heard and understood by the listeners (Gardner, 1995). Leithwood (as cited in Marzano et al., 2005) expanded the thought of leadership traits and noted the *Four Is* for transformational leadership: individual consideration, intellectual stimulation, inspirational motivation, and idealized influence. The scope of communication for a school leader has changed dramatically over the course of the past several years. This is due to the introduction of technology, social media, and school accountability (Ferriter et al., 2011). Schools have a great responsibility to their students, parents, and communities. Much of the accountability has entered through No Child Left Behind Act and is becoming enhanced through legislative changes. In the state of Indiana, public schools must publish their school letter grades, which are

based on student test scores. The school letter grade, issued by the Indiana Department of Education, is the identity of that school for the current school year. This can be seen as a form of *branding*, which is a form of marketing oneself (Ferriter et al., 2011). Another way to view Branding or marketing would be Outreach. A school leader needs to be the voice or advocate for the school (Marzano et al., 2005).

Being the school leader, this individual must communicate both in and out of the school building (Cotton, 2003). This is where communication enters in for a school leader. According to a national study with a focus on principals' use of social media, it was found that many leadership traits were needed to incorporate social media in schools (*School Principals and Social Networking in Education*, 2010). This study demonstrated that the school leader has a role to provide professional development, promote and support teachers with social media, and to provide educational opportunities which focus on social media (*School Principals and Social Networking in Education*, 2010). Another trait that was mentioned, was modeling. Leaders need to be role models and to be the example of best practice (Marzano et al., 2005). Leaders would make an impact and would effectively continue to learn. They also maintain the large vision of the organization and all responsibilities connected to being a leader (Drucker, 2001). As a leadership trait, public relations are essential in school environments. Elements that are effective include teamwork, self-development, staff development, and communications (Drucker, 2001).

When leaders communicate, the message needs to be purposeful, and leaders need to consider how they deliver their message (Gardner, 1995). Technology makes communication efficient, but can be misleading. Leaders need to be aware of how they communicate and ensure the message is clear (Ferriter et al., 2011). Communication is perceived as one of the most important responsibilities of a leader and is the common theme among all aspects of education

(Marzano et al., 2005). A school leader must be the advocate for the school, teachers, and students (Marzano et al., 2005) The principal needs to have the ability to clearly communicate in and out of the school (Cotton, 2003).

There are many modes of communication a school leader can use to connect with patrons, students, and business leaders; yet, too often, principals resort to simple mailings and newsletters. As social media becomes more prominent in education, leaders will start to embrace the new technology (Boyd & Ellison, 2008). Using social media to communicate outside the walls of the school provides quick and accurate results. The message can be tailored to the receiving audience, can be sent to a specific audience, and can be instantaneous. Prior to social media, mailers and paper versions newsletters were dependent on dissemination through students and U.S. mail (Ferriter et al., 2011). When the human factor is involved, there are too many variables that can impact the intended message. Leaders today are using social media to advertise many messages, which include daily advertisements, reminders, cancellations, and sharing student accomplishments.

Educational leaders have many opportunities to be involved in professional organizations. Many of the organizations have established a criterion that ensures the school leader will be successful (Brock & Bennett, 2001). One organization that has been instrumental in school leadership is the Council of Chief State School Officers. In partnership with the National Policy Board on Educational Administration (NPBEA), they created what is known as the Interstate School Leaders Licensure Consortium Standards (ISLLC; Van Meter & Murphy, 1997). As found in the national study of *School Principals and Social Networking in Education: Practices, Policies, and Realities* (2010), there are many results that connect with administrative leadership standards.

ISLLC Standards

The ISLLC standard has a framework of six standards, which include vision of learning, maintaining a nurturing educational environment, managing and promoting a safe atmosphere, collaboration among faculty and community for a diverse education, maintaining integrity and fairness, and being engaged in the political, social, and legal agendas.

Standard 1: An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.

Functions:

- Collaboratively develop and implement a shared vision and mission
- Collect and use data to identify goals, assess organizational effectiveness, and promote organizational learning
- Create and implement plans to achieve goals
- Promote continuous and sustainable improvement
- Monitor and evaluate progress and revise plans

Standard 2: An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.

Functions:

- Nurture and sustain a culture of collaboration, trust, learning, and high expectations
- Create a comprehensive, rigorous, and coherent curricular program
- Create a personalized and motivating learning environment for students
- Supervise instruction

- Develop assessment and accountability systems to monitor student progress
- Develop the instructional and leadership capacity of staff
- Maximize time spent on quality instruction
- Promote the use of the most effective and appropriate technologies to support teaching and learning
- Monitor and evaluate the impact of the instructional program

Standard 3: An education leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment.

Functions:

- Monitor and evaluate the management and operational systems
- Obtain, allocate, align, and efficiently utilize human, fiscal, and technological resources
- Promote and protect the welfare and safety of students and staff
- Develop the capacity for distributed leadership
- Ensure teacher and organizational time is focused to support quality instruction and student learning

Standard 4: An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources.

Functions:

- Collect and analyze data and information pertinent to the educational environment
- Promote understanding, appreciation, and use of the community's diverse cultural,

social, and intellectual resources

- Build and sustain positive relationships with families and caregivers
- Build and sustain productive relationships with community partners

Standard 5: An education leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner.

Functions

- Ensure a system of accountability for each student's academic and social success
- Model principles of self-awareness, reflective practice, transparency, and ethical behavior
- Safeguard the values of democracy, equity, and diversity
- Consider and evaluate the potential moral and legal consequences of decision-making
- Promote social justice and ensure that individual student needs include all aspects of schooling

Standard 6: An education leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic, legal, and cultural context.

Functions:

- Advocate for children, families, and caregivers
- Act to influence local, district, state, and national decisions affecting student learning
- Assess, analyze, and anticipate emerging trends and initiatives in order to adapt leadership strategies (as cited in Van Meter & Murphy, 1997, pp. 14-15)

Highly effective leaders of the 21st century must be strong in all aspects of leadership.

Educational reform, no matter the focus, typically makes an impact in schools with strong leadership (Demski, 2012). This is true for technology as well. To have a successful integration

of technology and 21st-century skills, it begins with a technology leader (Demski, 2012).

According to an article in *THE Journal*, a publication focused on technology in schools, there are seven habits of highly effective tech-leading principals. Those habits include creating an atmosphere that inspires innovation, fostering collaboration, being open to new ideas, being a connected learner, locating and providing resources, taking risks, and having a vision (Demski, 2012). Characteristics of highly effective technological leading principals include teaching responsible citizenship, allowing students to bring mobile devices, listening, and sharing best practices. Results gained from being a highly effect technological leading principal might include new professional development opportunities, connecting with students via Skype, connecting with other educators around the globe, and incorporating technology in all student classes (Demski, 2012).

Leaders of the 21st century need to consider the incorporation of technology while teaching digital citizenship. Being a responsible digital citizen requires individuals to safely use the provided technology and to embrace 21st century skills (Demski, 2012). The leader of the school needs to support the teachers and encourage taking risks. Too often creativity is not encouraged or supported due to fear of the unknown. Educators have seen examples of misuse of technology and the repercussions that have taken place. It is the role of the leader to support, educate, and embrace the risk taking of the teacher (Boyd & Ellison, 2008).

CHAPTER 3

METHODOLOGY

Chapter 3 discusses the research methodology including the null hypotheses, data sources, population of the study, the data collection process, and the instrument used. The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Data from the national 2009 report, *A Survey of K-12 Educators on Social Networking and other Content Sharing Tools*, was used to compare national results and data collected from Indiana. Overall, the design involved the following procedures:

- The population to be surveyed encompassed K-12 school principals from the state of Indiana.
- Approximately 1,931 school principals responsible for grades K-12 were included in the population. This included all K-12 public and private schools.
- Effective use of social media between school principals' data was collected from each respondent of the survey.

Research Questions

This quantitative study focused on 14 questions.

1. Are there significant differences across gender groups on usage of social media for communication?

2. Are there significant differences across educational experience groups on usage of social media for communication?
3. Are there significant differences across age groups on usage of social media for communication?
4. Are there significant differences across gender groups on usage of social media for professional development?
5. Are there significant differences across educational experience groups on usage of social media for professional development?
6. Are there significant differences across age groups on usage of social media for professional development?
7. Are there significant differences across school enrollment on usage of social media for communication?
8. Are there significant differences across school categories on usage of social media for communication?
9. Are there significant differences across locality on usage of social media for communication?
10. Are there significant differences across school enrollment on usage of social media for professional development?
11. Are there significant differences across school categories on usage of social media for professional development?
12. Are there significant differences across locality on usage of social media for professional development?
13. Do school principals prefer one social media site to another?

14. Do school principals in Indiana follow the national trend in social media use?

Null Hypotheses

H₀1: There are no significant differences across gender groups on usage of social media for communication.

H₀2: There are no significant differences across educational experience groups on usage of social media for communication.

H₀3: There are no significant differences across age groups on usage of social media for communication.

H₀4: There are no significant differences across gender groups on usage of social media for professional development.

H₀5: There are no significant differences across educational experience groups on usage of social media for professional development.

H₀6: There are no significant differences across age groups on usage of social media for professional development.

H₀7: There are no significant differences across school enrollment on usage of social media for communication.

H₀8: There are no significant differences across school categories on usage of social media for communication.

H₀9: There are no significant differences across locality on usage of social media for communication.

H₀10: There are no significant differences across school enrollment on usage of social media for professional development.

H₀11: There are no significant differences across school categories on usage of social media for professional development.

H₀12: There are no significant differences across locality on usage of social media for professional development.

Design

Quantitative designs commonly use surveys or instruments that are experimental. The data collection tools gather information that is specific and numeric. Qualitative designs provide more subjectivity and require more interaction with the researched subjects (Creswell, 1994). While using a quantitative design, the research is completely independent and the subjects tested were anonymous. The reality remains objective, singular, and apart from the researcher. Throughout qualitative designs, the researcher connects with the tested subjects and creates reality that can be seen by the tested subjects. In this study, the data collected to determine the use of social media among principals were collected through a survey and there was no interaction with the individuals participating in the study.

Participants

For the purpose of this study, school principals are defined as the leader of an educational setting composed of children in Grades K-12. In the state of Indiana, there are approximately 1,931 school principals from the information provided by Indiana Department of Education (IDOE). This study surveyed principals who had an email address registered with the IDOE. An email was sent to principals in the state of Indiana asking for their participation in this study.

Recruitment

A list of elementary, middle, and high school principals was obtained from the IDOE database. An email containing a link to the Qualtrics online survey was sent to each email

address found in the IDOE principal database. Principals were asked to participate in this study to help assess the use of social media across the state of Indiana.

Location of Study

All research was conducted via Qualtrics on-line survey. The link to the survey was attached to the email and the participants accessed the on-line survey via the link.

Instruments, Research Materials, and Records

The attached survey instrument was developed with the intent to collect data specifically for this study (Appendix A). Email addresses for Indiana principals were obtained through the IDOE (Appendix B, C). Principals received an email requesting their participation in this study. The email contained a cover letter explaining the research project and a link to the Qualtrics survey. Each respondent was asked to respond one time to the survey, which took no more than 10 minutes to complete (Appendix D). The respondents were only asked to participate in the survey.

Procedures

A total of 1,931 principals made up the population to participate in the study. The list of participants was developed using resources from the IDOE. Each participant received an email asking them to participate in this study and found a link to the survey. Once the participants activated the link to the survey, they were taken to the letter of consent to participate in the study. By advancing to the next page of the survey, the participant acknowledged their consent to participate in the study. If the participant chose not to participate at any time, they simply closed out of the survey.

Principals were surveyed on the use of social media in their roles as school principals. Results of the data collected were used to examine whether principals used social media to be

effective in their roles as school leaders. The data were also used to determine how the Indiana principals compare to the national results in use of social media. Lastly, the data were used to determine if there was a significant difference in the use of social media among age ranges between administrators.

Approximately three weeks after the initial email inviting the participants to take the survey (Appendix B), a follow up email was sent to thank those who have participated and encouraged others to complete the survey (Appendix C). Within five weeks of the first email, the survey was taken down and the data extracted into an excel spreadsheet.

Principal Survey

The Social Media Survey was used with school principals to determine the use of social media in the role of school leadership. A portion of the Social Media Survey was created using questions from the national 2009 report, *A Survey of K-12 Educators on Social Networking and Other Content Sharing Tools*. The original study was developed to research social media use between principals, teachers, and librarians. Permission was granted to use any portion of the national survey when seeking data from Indiana principals. Two questions pertaining to school principals were used. In addition to retrieving permission to use portions of the national study, administrators who use social media quite extensively were consulted on the forms of social media to be surveyed. When consulted, the administrators suggested two more sites, Pinterest and Google+, which were not created at the time of the 2009 national survey.

Survey Reliability

Survey reliability was determined through research and non-biased review. Members of the Indiana State University Ph.D. 2012-2013 cohort reviewed the Social Media survey. Students provided instrumental feedback on continuity, clarity, and content. In addition, a

portion of the survey was developed by edWeb.net to gain insight on social media use among principals, teachers, and librarians. Permission was granted by edWeb.net to use any or all of the survey. For this study, the portion pertaining to school principals was used.

Statistical Analysis

The study on the use of social media among principals relied on statistical analysis using a survey instrument (Appendix A) developed by me. Two questions embedded in the survey were designed by edWeb.net. The survey was administered during the 2012-2013 school year.

For H₀₁- H₀₁₂, the significance of group differences was tested using a one-way ANOVA analysis for each hypothesis. For H₀₁- H₀₃ use of social media for school communication was the dependent variable for each analysis while gender, educational experience, and age were the independent variables respectively. For H₀₄- H₀₆, use of social media for professional development was the dependent variable for each analysis while gender, educational experience, and age were the independent variables respectively. For H₀₇- H₀₉, use of social media for school communication was the dependent variable for each analysis while school enrollment, school category, and locality were the independent variables respectively. For H₀₁₀- H₀₁₂, use of social media for professional development was the dependent variable while school enrollment, school category, and locality were the independent variables respectively.

Research question 13 was analyzed using descriptive analysis. Individuals were grouped by social media types and the mean score given to social media types determined the preference of social media used by principals.

Research question 14 was analyzed using descriptive analysis. Individuals were grouped by social media response and the mean score given to social media responses were compared to the results of the national report in 2009.

Summary

In this chapter, the design components consisting of the hypotheses, the data source including the population, and the instrument to be used were presented and described. The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. A comparison was also performed among the results and similar results found in the *November 2009 report, A Survey of K-12 Educators on Social Networking and Other Content Sharing Tools*.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Data from the national 2009 report, *A Survey of K-12 Educators on Social Networking and other Content Sharing Tools*, was used to compare national results, and data collected from Indiana. A survey was also created to analyze the use of social media among principals in the state of Indiana. The survey collected data from principals, indicating age, gender, locality, educational experience, social media use, and social media preferences. Lastly, the data was used to determine if there is a comparison between the state of Indiana results and the 2009 national results. The survey provided data to determine if social media use has increased since the 2009 national report.

This chapter provides a description of the data and presents the results of the study. It is organized into the following sections: descriptive data, findings and analysis of the hypotheses, and summary of findings.

Descriptive Data

The research focus of this study was Indiana principals. A survey was sent to 1,931 principals. The analysis data set contained 356 records ($N = 356$), representing 18.43% of the principals invited to participate.

The research questions that guided this study were

1. Are there significant differences across gender groups on usage of social media for communication?
2. Are there significant differences across educational experience groups on usage of social media for communication?
3. Are there significant differences across age groups on usage of social media for communication?
4. Are there significant differences across gender groups on usage of social media for professional development?
5. Are there significant differences across educational experience groups on usage of social media for professional development?
6. Are there significant differences across age groups on usage of social media for professional development?
7. Are there significant differences across school enrollment on usage of social media for communication?
8. Are there significant differences across school categories on usage of social media for communication?
9. Are there significant differences across locality on usage of social media for communication?
10. Are there significant differences across school enrollment on usage of social media for professional development?
11. Are there significant differences across school categories on usage of social media for professional development?

12. Are there significant differences across locality on usage of social media for professional development?
13. Do school principals prefer one social media site to another?
14. Do school principals in Indiana follow the national trend in social media use?

Respondent Characteristics

The population of principals that participated in this survey represented a cross section of Indiana schools. Indiana principals in 356 schools responded to the survey. Although a total of 356 respondents responded to the survey, some only answered a portion of the questions. As represented below, the total number of responses for each respondent characteristic varied based on the number of respondents that answered the question on the survey.

Of the 356 respondents, 324 indicated their gender on the survey, with 209 men and 115 women. Of the population who indicated gender on the survey, 64.5% were men and 35.5% were women.

Of the 356 respondents asked to provide their age, 324 indicated their age within ranges from 29 and under to 60 and older. The respondents represented five possible age categories: 29 or under; 30–39; 40–49; 50–59; 60 and older. One principal was 29 or under, accounting for .3% of the sample; 86 principals were 30-39, accounting for 26.5% of the sample; 122 principals were 40–49, accounting for 37.7% of the sample; 88 principals were 50–59, accounting for 27.2% of the sample; and 27 were 60 or older, accounting for 8.3% of the sample.

Of the 356 respondents, 317 indicated the number of years served as a principal at their current school or other schools. The average of the principal for the respondents was 9.6 years. The least experience was one year and the most was 34 years.

Of the 356 respondents, 311 indicated the number of years of teaching experience, regardless of level, prior to taking a principal position. The average teaching experience of the respondents was 11.4 years. The least experience was one year and the most was 40 years.

Of the 356 respondents, 318 indicated their school enrollment. The average enrollment was 617.8. The smallest school enrollment was 34 students and the largest was 3,500 students.

Of the 356 respondents, 319 indicated their school grade level as classified by the Indiana Department of Education. The responses represented four possible categories: elementary, middle school, high school, and other as presented in Table 1.

Table 1

Respondents by School Category

Category	<i>N</i>	Percent
Elementary	159	49.8
Middle School	52	16.3
High School	82	25.7
Other	26	8.2
Total	319	100.00

Of the 356 respondents, 320 indicated the best descriptor of their school's locality. The responses represented four possible categories: urban, suburban, small town, and rural as presented in Table 2.

Table 2

Respondents by School Locality

Locality	<i>N</i>	Percent
Urban	63	19.7
Suburban	67	20.9
Small Town	80	25.0
Rural	110	34.3
Total	320	100.00

The 356 respondents were asked to identify how often they use social media in their role as a principal, as well as for personal use. Respondents were permitted to choose more than one response. The responses represented four possible categories: not at all, periodically during the week, daily, and/or several times each day as presented in Tables 3 and 4.

Table 3

Frequency of Professional Use of Social Media

Type	Average
Facebook	1.38
Twitter	1.60
Google +	1.89
MySpace	1.01
Pinterest	1.16
LinkedIn	1.23
Other	1.18

Table 4

Frequency of Personal Use of Social Media

Type	Average
Facebook	1.99
Twitter	1.62
Google +	1.87
MySpace	1.01
Pinterest	1.30
LinkedIn	1.22
Other	1.23

The 356 respondents were asked to indicate how they use social media both personally and professionally. Respondents were permitted to choose more than one response. The responses for personal use represented six possible categories: to connect with friends, to connect with family members, to connect with professional peers and colleagues, I am not a member of any general social networking site, to make connections for job and career opportunities, and to generate income. For professional use, the responses represented seven possible categories: to connect with professional peers and colleagues, to stay current with the latest technology, to make connections for job and career opportunities, to connect with friends, to connect with family members, to generate or try to generate income, and do not use it. The number of respondents for each selection and the percentage are found in Tables 5 and 6.

Table 5

Social Networking Site for Personal Use

Category	<i>N</i>	Percent
To connect with friends.	210	58.9
To connect with family members.	214	60.1
To connect with professional peers and colleagues.	170	47.7
I am not a member of any general social networking site.	75	21.0
To make connections for job and career opportunities.	63	17.6
To generate income.	5	1.4

Table 6

Professional and Education Social Networking for Professional Use

Category	<i>N</i>	Percent
To connect with professional peers and colleagues.	198	55.6
To stay current with the latest technology.	162	45.5
To make connections for job and career opportunities.	76	21.3
To connect with friends.	73	20.5
To connect with family members.	53	14.8
To generate income or try to generate income.	1	.2
Do not use it.	105	29.4

Findings and Analysis

When testing Hypotheses 1 through 12 for normality, a Shapiro-Wilk test found the significance value was less than .05 for each hypothesis. A lack of normality was also evidenced by examining the skewness and kurtosis values. Although the lack of normality can have an effect on the accuracy of the *F* value, the large sample size used in this study is robust enough to still maintain the accuracy of the ANOVA.

When testing Hypotheses 1 through 12, a rating of 1, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated. When analyzing the survey results, a blank answer indicated there was no use or familiarity with social media. This assumption was made for the study to prevent skewed results.

Null Hypothesis 1

The first null hypothesis was, “There are no significant differences across gender groups on usage of social media for communication.” Respondents were asked to indicate their gender and how often they use each social media type for school communication. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Gender served as the independent variable and frequency of use for school communication was the dependent variable. Using Levene’s test, the assumption of homogeneity of variance was met with $F(1, 321) = 1.22, p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between gender groups on usage of social media for school communication with $F(1, 321) = .02, p > .05$. The mean and standard deviation for each gender type are shown in Table 7.

Table 7

Mean and Standard Deviation for Gender on Social Media Use for School Communication

Gender	<i>N</i>	Mean	<i>SD</i>
Male	209	1.37	.46
Female	114	1.37	.52
Total	323	1.37	.48

Null Hypothesis 2

The second null hypothesis was, “There are no significant differences across educational experience groups on usage of social media for communication.” Respondents were asked to indicate their years of principal experience and how often they use each social media type for

school communication. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Administrative experience served as the independent variable and frequency of use for school communication was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(2, 314) = 2.82, p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between experience groups on usage of social media for school communication with $F(2, 314) = 1.99, p > .05$. The mean and standard deviation for each gender type are shown in Table 8.

Table 8

Mean and Standard Deviation for Educational Experience on Social Media Use for School Communication

Experience	<i>N</i>	Mean	<i>SD</i>
10 and under	203	1.41	.50
11-20	84	1.32	.45
21 or more	30	1.26	.38
Total	317	1.37	.48

Null Hypothesis 3

The third null hypothesis was, "There are no significant differences across age groups on usage of social media for communication." Respondents were asked to indicate their age and how often they use each social media type for school communication. A rating of one, not at all,

was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Age served as the independent variable and frequency of use for school communication was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(2, 319) = .34, p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between age groups on usage of social media for school communication with $F(2, 319) = .52, p > .05$. The mean and standard deviation for each gender type are shown in Table 9.

Table 9

Mean and Standard Deviation for Age on Social Media Use for School Communication

Age	<i>N</i>	Mean	<i>SD</i>
39 and under	85	1.36	.36
40-59	210	1.38	.49
60 and older	27	1.28	.45
Total	322	1.37	.48

Null Hypothesis 4

The fourth null hypothesis was, "There are no significant differences across gender groups on usage of social media for professional development." Respondents were asked to indicate their gender and how often they use each social media type for professional development. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Gender served as the independent variable, while frequency of use for professional development was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was violated with $F(1, 321) = 8.33, p < .05$. To account for the violation of the assumption of homogeneity of variance, Welch's test was used to determine the F -ratio. Using this analysis, it was found that significant differences do exist between gender on usage of social media for professional development with $F(1, 321) = 8.42, p < .05$. The mean and standard deviation for each gender type are shown in Table 10. Based on the difference of means, women use social media more frequently for school communication than men.

Table 10

Mean and Standard Deviation for Gender on Social Media Use for Professional Development

Gender	<i>N</i>	Mean	<i>SD</i>
Men	209	1.24	.38
Women	114	1.38	.37
Total	323	1.29	.42

Null Hypothesis 5

The fifth null hypothesis was, "There are no significant differences across educational experience groups on usage of social media for professional development." Respondents were asked to indicate their years of principal experience and how often they use each social media type for professional development. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Administrative experience served as the independent variable while frequency of use for school communication was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(2, 314) = 1.04, p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between experience groups on usage of social media for professional development with $F(2, 314) = 1.13, p > .05$. The mean and standard deviation for each gender type are shown in Table 11.

Table 11

Mean and Standard Deviation for Educational Experience on Social Media Use for Professional Development

Experience	<i>N</i>	Mean	<i>SD</i>
10 and under	203	1.31	.43
11-20	84	1.30	.41
21 or more	30	1.18	.32
Total	317	1.29	.42

Null Hypothesis 6

The sixth null hypothesis was, "There are no significant differences across age groups on usage of social media for professional development." Respondents were asked to indicate their age and how often they use each social media type for professional development. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Age served as the independent variable while frequency of use for professional development was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(2, 319) = .31, p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between age groups on usage of social media for professional development with $F(2, 319) = 1.18, p > .05$. The mean and standard deviation for each gender type are shown in Table 12.

Table 12

Mean and Standard Deviation for Age on Social Media Use for Professional Development

Age	N	Mean	SD
39 and under	85	1.28	.44
40-59	210	1.31	.42
60 and older	27	1.18	.37
Total	322	1.29	.42

Null Hypothesis 7

The seventh null hypothesis was, "There are no significant differences across school enrollment groups on usage of social media for communication." Respondents were asked to indicate their school enrollment and how often they use each social media type for school communication. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. School enrollment served as the independent variable while frequency of use for school communication was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(3,$

314) = 2.19, $p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between school enrollment groups on usage of social media for school communication with $F(3, 314) = 1.37, p > .05$. The mean and standard deviation for each enrollment type is shown in Table 13.

Table 13

Mean and Standard Deviation for School Enrollment on Social Media Use for School Communication

Enrollment	<i>N</i>	Mean	<i>SD</i>
Less than 300	42	1.25	.05
301-599	156	1.36	.04
600-1000	90	1.39	.05
More than 1000	30	1.47	.10
Total	318	1.37	.03

Null Hypothesis 8

The eighth null hypothesis was, “There are no significant differences across school categories on usage of social media for communication.” Respondents were asked to indicate their school category and how often they use each social media type for school communication. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. School category served as the independent variable while frequency of use for school communication was the dependent variable. Using Levene’s test, the assumption of homogeneity of variance was met with $F(3,$

315) = 1.91, $p > .05$. Since the significance value is greater than .05 it was, therefore, not significant and the assumption of homogeneity of variance was met. Using a one-way ANOVA, it was found that significant differences did exist between school categories on usage of social media for school communication with $F(3, 315) = 4.14, p < .05$. The mean and standard deviation for each gender type is shown in Table 14. Using Tukey's post hoc tests, it was determined that differences exist between elementary and high school principals on the use of social media for professional development. Based on the means, high school principals use social media for professional development more frequently than elementary principals.

Table 14

Mean and Standard Deviation for School Category on Social Media Use for School Communication

Category	<i>N</i>	Mean	<i>SD</i>
Elementary	159	1.31	.44
Middle School	52	1.31	.46
High School	82	1.52	.56
Other	26	1.46	.45
Total	319	1.37	.48

Null Hypothesis 9

The ninth null hypothesis was, "There are no significant differences across locality on usage of social media for communication." Respondents were asked to indicate their school locality and how often they use each social media type for school communication. A rating of

one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. Locality served as the independent variable while frequency of use for school communication was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(3, 316) = 1.32, p > .05$. Since the significance value is greater than .05 it was, therefore, not significant and the assumption of homogeneity of variance was met. Using a one-way ANOVA, it was found that significant differences did not exist between locality groups on usage of social media for school communication with $F(4, 316) = .68, p > .05$. The mean and standard deviation for each gender type are shown in Table 15.

Table 15

Mean and Standard Deviation for School Locality on Social Media Use for School Communication

Locality	<i>N</i>	Mean	<i>SD</i>
Urban	63	1.39	.56
Suburban	67	1.32	.47
Small Town	80	1.43	.45
Rural	110	1.35	.48
Total	321	1.37	.48

Null Hypothesis 10

The 10th null hypothesis was, "There are no significant differences across school enrollment groups on usage of social media for professional development." Respondents were

asked to indicate their school enrollment and how often they use each social media type for professional development. A rating of one, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. School enrollment served as the independent variable while frequency of use for professional development was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was met with $F(3, 314) = .85, p > .05$. Using a one-way ANOVA, it was found that significant differences did not exist between school enrollment groups on usage of social media for professional development with $F(3, 314) = .61, p > .05$. The mean and standard deviation for each gender type are shown in Table 16.

Table 16

Mean and Standard Deviation for School Enrollment on Social Media Use for Professional Development

Enrollment	<i>N</i>	Mean	<i>SD</i>
Less than 300	42	1.23	.34
301-599	156	1.32	.44
600-1000	90	1.29	.44
More than 1000	30	1.24	.38
Total	318	1.29	.42

Null Hypothesis 11

The 11th null hypothesis was, "There are no significant differences across school categories on usage of social media for professional development." Respondents were asked to

indicate their school category and how often they use each social media type for professional development. A rating of 1, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. School category served as the independent variable, while frequency of use for professional development was the dependent variable. Using Levene's test, the assumption of homogeneity of variance was violated with $F(3, 315) = 4.43, p < .05$. To account for the violation of the assumption of homogeneity of variance, Welch's test was used to determine the F -ratio. Using this analysis, it was found that significant differences did not exist between school categories on usage of social media for professional development with $F(3, 315) = 1.87, p < .05$. The mean and standard deviation for each gender type are shown in Table 17.

Table 17

Mean and Standard Deviation for School Category on Social Media Use for Professional Development

Gender	<i>N</i>	Mean	<i>SD</i>
Elementary	159	1.33	.48
Middle School	52	1.27	.35
High School	82	1.22	.32
Other	26	1.37	.40
Total	319	1.29	.42

Null Hypothesis 12

The 12th null hypothesis was, “There are no significant differences across school locality on usage of social media for professional development.” Respondents were asked to indicate their school locality and how often they use each social media type for professional development. A rating of 1, not at all, was assumed and inserted for respondents when calculating the average use for any type not rated.

This hypothesis was tested using a one-way ANOVA. School locality served as the independent variable, while frequency of use for professional development was the dependent variable. Using Levene’s test, the assumption of homogeneity of variance was violated with $F(3, 316) = 2.74, p < .05$. To account for the violation of the assumption of homogeneity of variance, Welch’s test was used to determine the F -ratio. Using this analysis, it was found that significant differences did not exist between school locality on usage of social media for professional development with $F(4, 316) = .82, p < .05$. The mean and standard deviation for each gender type are shown in Table 18.

Table 18

Mean and Standard Deviation for School Locality on Social Media Use for Professional Development

Gender	<i>N</i>	Mean	<i>SD</i>
Urban	63	1.27	.36
Suburban	67	1.36	.55
Small Town	80	1.28	.37
Rural	110	1.26	.40
Total	321	1.29	.42

Research Question 13

The 13th Research Question was, “School principals do not prefer one social media to another.” The average use for each social media type was determined for school communication as well as professional development. For school communication, the average use for Facebook was 1.73, Twitter was 1.68, Google+ was 1.51, MySpace was 1.01, Pinterest was 1.09, and Linked In was 1.06. For professional development, the average use for Facebook was 1.15, Twitter was 1.63, Google+ was 1.56, MySpace was 1.00, Pinterest was 1.22, and LinkedIn was 1.08.

Research Question 14

The 14th Research Question was, “Do school principals in Indiana follow the national trend in social media use?” Respondents answered the question, “How are you using general social networking sites?” The respondents were permitted to select all that apply. Indiana principals versus national responses were 210 (57.2%) versus 79% to connect with friends, 214 (58.3%) versus 65% to connect with family members, 170 (46.3%) versus 45% to connect with professional peers and colleagues, 75 (20.4%) versus 9% not members of social networking sites, 63 (17.1%) versus 4% to make connections for job and career opportunities, and five (.1%) versus 1% to generate income.

Respondents answered the question, “How are you using professional and education social networking sites?” The respondents were permitted to select all that apply. Indiana principals versus national responses were 198 (53.6%) versus 34% to connect with professional peers and colleagues, 162 (44.1%) versus 12% to stay current with the latest Web 2.0 technology, 76 (20.7%) versus 10% to make connection for job and career opportunities, 73 (19.8%) versus 8% to connect with friends, and 53 (14.4%) versus 3% to connect with family

members, 1 (.002%) versus 0% to generate income. A total of 105 (28.6%) Indiana principals selected that social networking is not used for professional or educational reasons.

CHAPTER 5

SUMMARY OF THE STUDY

This chapter is organized into four sections. The first section presents a discussion of the findings including a summary of the descriptive data and a summary of the hypotheses testing. The second section includes conclusions and a summary of the research. The third section discusses the implications of social media use among school principals as a result of this research. The final section discusses the recommendations for future research.

The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Data from the national 2009 report, *A Survey of K-12 Educators on Social Networking and other Content Sharing Tools*, was used to compare national results and data collected from Indiana. An analysis was prepared to determine the use of social media among principals in the state of Indiana. The survey collected data from principals, indicating age, gender, locality, educational experience, social media use, and social media preferences. Lastly, the data was used to determine if there is a comparison between the state of Indiana results and the 2009 national results. The survey provided data to determine if social media use has increased since the 2009 national report.

In general, the research design involved a population of 1,931 school principals. The effective use of social media between school principals' data was collected using a survey. Statistical analysis of data included descriptive statistics regarding the mean, standard deviation,

and frequency of selected items. A comparison of means and one-way ANOVA were used to test the null hypothesis. Significance was identified at the .05 level.

In all, 356 principals responded to the survey instrument, which examined the perceived level of effectiveness of six types of social media. Of these 356 respondents, 209 were men (64.5%) and 115 were women (35.5%). In terms of the age of the respondents, one principal was aged 29 or under making up .3% of the sample: 86 principals were aged 30-39 making up 26.5% of the sample, 122 principal were aged 40-49 making up 37.7% of the sample, 88 principals were aged 50-59 making up 27.2% of the sample, and 27 principals were aged 60 and older making up 8.3% of the sample group.

The respondents represented schools ranging from 34 students to 3500 students and the average enrollment was 617.8. The respondents represented schools that were classified as elementary school, middle school, high school, or other. A total of 159 respondents represented an elementary school, accounting for 49.8% of the sample; 52 respondents represented a middle school, accounting for 16.3% of the sample; 82 respondents represented a high school, accounting for 25.7% of the sample; and 26 respondents represented a school other than an elementary, middle, or high school, accounting for 8.2% of the sample.

The respondents of participating schools were located in a variety of locales, including urban, suburban, small town, and rural. Of these participants, the school in which they were principal consisted of 63 (19.7%) being rural, 67 (20.9%) suburban, 80 (25%) small town, and 110 (34.3%) located in rural contexts.

Discussion of Findings

The purpose of this quantitative study was to examine the use of social media among principals in the state of Indiana. Data from the national report, *A Survey of K-12 Educators on*

Social Networking and other Content Sharing Tools (2009), was used to compare national results and data collected from Indiana. An analysis was prepared to determine the use of social media among principals in the state of Indiana. The survey collected data from principals, indicating age, gender, locality, educational experience, social media use, and social media preferences. Lastly, the data were used to determine if there is a comparison between the state of Indiana results and the 2009 national results. The survey provided data to determine if social media use has increased since the 2009 national report.

Summary of Descriptive Data

Surveys were electronically mailed to 1,931 principals in the state of Indiana. Principals were asked to provide demographic information about themselves, as well as, the school they represented, such as age, gender, years of experience, school enrollment, school locale, frequency use of social media, and the reasons for social media use. Principals provided responses that determined their preference in social media types. Responses to the survey also determined the comparison between national data with Indiana principal social media use. Principals were asked to respond to the first six items by rating how often social media was used for professional use; the second six items, the principals were asked to rate how often social media was used for personal use. In the next six items, principals were asked to rate how effective they believe social media was for their role as a principal. Principals were asked to indicate how often six sites of social media were used to communicate school business and how often the same sites were used for professional development. The following is a summary of the descriptive data findings and the conclusions of the analysis.

Principal Preference of Social Media Sites

Based on the survey results for school communication, Facebook had the highest average rating of 1.73. The remaining sites, Twitter (1.68), Google + (1.51), MySpace (1.01), Pinterest (1.09), and LinkedIn (1.06), were not selected as the most preferred site for school communication. Further research may need to be conducted due to the low number of average ratings. With a respondent group of 356 participants, it is possible that social media has not been used to communicate on behalf of schools.

Based on the survey results for professional development, Twitter had the highest average rating of 1.63. The remaining sites, Facebook (1.15), Google+ (1.56), MySpace (1.00), Pinterest (1.22), and LinkedIn (1.08), were not selected as the most preferred site for professional development. Further research may need to be conducted due to the low number of average ratings. In addition, the second highest rating was Google+. It is possible the respondents may have chosen Google+ thinking it was the search engine in lieu of the social networking site. Lack of knowledge may have influenced the selection process. With a respondent group of 356 participants, it is possible that social media has not been used as professional development.

Indiana Principals Versus the National Trend in Social Media Use

The study allowed the opportunity to compare the state of Indiana principals to the national trend based on 2009 data. Principals were asked how they use general social networking sites and the Indiana principals selected “to connect with family members” the most (58.3%). Table 19 reflects nationally, the trend was to use general social media sites “to connect with friends” as the highest preference (79%). When comparing Indiana to national trends towards using professional and education social networking sites, Indiana indicated “to connect

with professional peers and colleagues” as the most preferred purpose (53.6%). The national trend also chose “to connect with professional peers and colleagues” as the most preferred purpose (34%). The national study was administered again in 2012 using the same criterion as the 2009 study. The respondents were randomly chosen as in the 2009 study. The same questions were compared between Indiana principals and the national trend, which resulted in a connection with family and friends as the highest selection among principals. This is a difference from the 2009 data in use of general social networking site (Table 20). Further study may need to be performed to fully compare Indiana and national trends.

Table 19

Social Networking Site for Personal Use

	Indiana	National 2009	National 2012
To connect with friends.	58.9%	79%	73%
To connect with family members.	60.1%	65%	73%
To connect with professional peers and colleagues.	47.7%	45%	46%
I am not a member of any general social networking site.	21.0%	16%	N/A
To make connections for job and career opportunities.	17.6%	9%	26%
To generate income.	1.4%	2%	N/A

Table 20

Professional and Education Social Networking for Professional Use

Category	Indiana	National 2009	National 2012
To connect with professional peers and colleagues.	55.6%	34%	51%
To stay current with the latest technology.	45.5%	12%	N/A
To make connections for job and career opportunities.	21.3%	10%	31%
To connect with friends.	20.5%	8%	71%
To connect with family members.	14.8%	3%	71%
To generate income or try to generate income.	.2%	1%	N/A
Do not use it.	29.4%	0%	N/A

Summary of Hypotheses Testing

The following is a summary of the 12 hypotheses tested and the conclusions drawn from the results.

1. The first hypothesis stated, “There were no significant differences across gender groups on usage of social media for communication.” This hypothesis was tested using a one-way ANOVA. The results revealed that there were no significant difference between gender groups on usage of social media for school communication with $F(1,321) = .02, p > .05$.

Conclusion: There were no significant differences across gender groups on usage of social media for communication. Non-significance may indicate that it is

possible both groups use social media for school communication in equal parts. In Chapter 2, there was a reference to 21st-century skills, including using Web 2.0 tools (Osborne, 2011). By having an equal mean, it is possible both genders have included social media in their school communications.

2. The second hypothesis stated, “There were no significant differences across educational experience groups on usage of social media for communication.” This hypothesis was tested using a one-way ANOVA. The results revealed that there were no significant differences between experience groups on usage of social media for school communication, $F(2, 314) = 1.99, p > .05$.

Conclusion: There were no significant differences across educational experience groups on usage of social media for communication. Although not statistically significant, the category 10 years of experience and under was rated as more frequently used than all other experience groups. This determination was based on the mean usage ratings. The results support the research of younger generations using social media as a means to communicate with one another (Prensky, 2001a). It is possible that a younger administrator may have used social media in his or her personal life and may tend to incorporate it into his or her professional life as well.

3. The third hypothesis stated, “There were no significant differences across age groups on usage of social media for communication.” This hypothesis was tested using a one-way ANOVA. The results revealed that there were no significant differences between age groups on usage of social media for school communication, $F(2, 319) = .52, p > .05$.

- Conclusion: There were no significant differences across age groups on usage of social media for communication. Although not statistically significant, 40-59 years of age was rated as more frequently used than all other age groups. This was based on the mean usage ratings. The result of this finding does not support all of the research because this age category is not the youngest group surveyed. The research in Chapter 2 indicates younger generations will be using social media more; however, the results from this hypothesis demonstrate a larger use in the middle range of age. It is possible that this generation uses social media in their personal lives and it is brought into the educational setting because of their personal experience.
4. The fourth hypothesis stated, "There were no significant differences across gender groups on usage of social media for professional development." This hypothesis was tested using a one-way ANOVA. The results revealed there were significant differences between gender on usage of social media for professional development, $F(1, 321) = 7.43, p < .05$.

Conclusion: Based on the ratings given by the respondents, there was a significant difference across gender groups on usage of social media for professional development. Based on the mean rating of effectiveness, women frequently used social media for professional development more effectively than men. Professional development has shifted towards a more digital delivery and forces an educator to use digital resources (Wheeler, 2012). The results found that women use social media more than men and it is possible that social media targets a female audience. Men may have more of an interest to use their current resources, whereas women seek new ideas from sites such as Pinterest and Facebook.

5. The fifth hypothesis stated, “There were no significant differences across educational experience groups on usage of social media for professional development.” This hypothesis was tested using a one-way ANOVA. The results revealed there were no significant differences between experience groups on usage of social media for professional development, $F(2, 314) = 1.13, p > .05$.

Conclusion: There were no significant differences across educational experience groups on usage of social media for professional development. Although not statistically significant, administrators with 10 years and under of experience indicated they used social media more frequently than other age groups. The results were based on the mean usage ratings. The findings support the research of a younger generation embracing the use of social media. The same findings were determined when looking at social media for communication. The younger generation of 10 years and under of experience appears to be incorporating social media in their daily working environment.

6. The sixth hypothesis stated, “There were no significant differences across age groups on usage of social media for professional development.” This hypothesis was tested using a one-way ANOVA. The results revealed there were no significant differences between age groups on usage of social media for professional development, $F(2,319) = 1.18, p > .05$.

Conclusion: There were no significant differences across age groups on usage of social media for professional development. Although not statistically significant, 40-59 years of age was rated as using social media more frequently than all other age groups. The results were determined based on the mean usage ratings. The result of

- this finding does not support all of the research because this age category is not the youngest group surveyed. The research in Chapter 2 indicates younger generations are using social media more; however, the results from this hypothesis demonstrate a larger use in the middle range of age (Prensky, 2001a). It is possible that this generation uses social media in their personal lives and it is brought into the educational setting because of their personal experiences. The same findings were determined when looking at social media for communication. It is possible that the age category 40-59 may use social media more because they have incorporated it for family communication. It is a Web 2.0 tool that may be used to connect with family members and has been brought into the educational setting.
7. The seventh hypothesis stated, “There were no significant differences across school enrollment on usage of social media for communication.” This hypothesis was tested using a one-way ANOVA. The results revealed there were no significant differences between enrollment types, $F(3, 314), p > .05$.

Conclusion: There were no significant differences across school enrollment on usage of social media for communication. Although not statistically significant, student enrollment of 1,000 was rated as using social media more frequently than all other enrollment groups. The results were based on the mean usage ratings. With a larger student population, it is possible administrators no longer use the same means of communication as they did a few years ago. Historically, schools would communicate using newsletters and mailings. Schools now focus on cost-effective measures and reaching as many patrons as possible (Ferriter et al., 2011).

Additionally, society has developed into an impulse community, and they want the information immediately. Social media has helped schools meet the needs of most families, but not all.

8. The eighth hypothesis stated, “There were no significant differences across school categories on usage of school media for communication.” This hypothesis was tested using a one-way ANOVA. The results revealed there were significant difference between school categories on usage of social media for school communication, $F(3, 315) = 4.14, p < .05$.

Conclusion: Based on the respondents’ ratings, significant differences existed among elementary, middle, and high school principals on the use of social media for professional development. Based on the means, high school principals use social media for professional development more frequently than elementary and middle school principals. In comparison to school size, the results appear to be similar. High school settings are typically larger in size and may have more information to communicate. Their communication to outside sources needs to happen in a timely manner. School leaders know it is imperative to communicate with families and share the events within a school setting (Marzano et al., 2005). It is possible that families do not engage in the high school setting, as well as the elementary setting. The younger student has more of a connection with school and parents than the high school student. This thought may be a reason as to why high schools use social media more than other school categories. Additionally, social media will assist the schools in reaching a larger population that extends past the family. Examples may include news media, colleges, businesses, and fellow high school organizations.

9. The ninth hypothesis stated, “There were no significant differences across locality on usage of social media for communication.” This hypothesis was tested using a one-way ANOVA. The results revealed there were no significant differences between locality on usage of social usage of social media for communication, $F(4, 316) = .68$, $p > .05$.

Conclusion: There were no significant differences across locality on usage of social media for communication. Although not statistically significant, small town frequently used social media more than all other locality. This was based on the mean usage ratings. To me, this finding was very interesting. One might assume the suburban category would rate as more effective, but small town respondents rated higher. This may be due to the participants’ geographical locations; however, there may be more support to embrace social media because of the size. To make advances in the educational setting, including social media, it is sometimes easier with a small setting.

10. The 10th hypothesis stated, “There were no significant differences across school enrollment on usage of social media for professional development.” This hypothesis was tested using a one-way ANOVA. The results revealed there were no significant differences between enrollment groups on usage of social media for professional development, $F(3, 314) = .61$, $p > .05$.

Conclusion: There were no significant differences across school enrollment on usage of social media for professional development. Although not statistically significant, administrators in schools with enrollment 301-599 frequently used social media more than all other enrollments. This was based on the mean usage ratings.

This finding may support smaller schools having fewer dollars. Currently, schools need to seek other resources when providing professional development. Schools receive funding based on student population, and the smaller schools struggle to meet the needs of all areas of education. Too often, professional development is the first area to be reduced. Educational leadership promotes professional development and it is a responsibility of all school leaders to provide the resource to the educators (Marzano et al., 2005) Social media has been a means for schools to use, and it is free or very inexpensive. Social media allows all sized schools to connect with nationally renowned speakers and educators.

11. The 11th hypothesis stated, “There were no significant differences across school categories on usage of social media for professional development.” This hypothesis was tested using a one-way ANOVA. The results revealed that there were no significant differences between school categories on usage of social media for professional development, $F(3, 315) = 1.87, p < .05$.

Conclusion: There were no significant differences across school categories on usage of social media for professional development. Although not statistically significant, respondents selecting *other* as their school category frequently used social media more than all other categories. This was based on the mean usage rating of the study. The study did not ask the respondents to define *other*, so the definition can only be speculated. There were three categories as defined by the IDOE: elementary, middle, and high school. Schools, such as alternative schools, charter schools, magnet schools, K-12, or other types of groupings may not have indicated one of the three categories. It is possible the other schools felt their student groupings did not fit

into the elementary, middle, or high school category.

12. The 12th hypothesis stated, “There were no significant differences across locality on usage of social media for professional development.” This hypothesis was tested using a one-way ANOVA. The results revealed there were no significant differences between school locality on usage of social media for professional development, $F(4, 316) = .82, p < .05$.

Conclusion: There were no significant differences across locality on usage of social media for professional development. Although not statistically significant, suburban locality used social media more frequently than other localities. This was based on the mean usage ratings. Educational leaders provide many experiences and opportunities for their educators (Cotton, 2003). In a suburban setting, there may be more opportunities for leaders to seek out resources due to a support system providing time. It is possible that leaders in suburban areas have the time and resources to seek sound professional development resources through social media.

Summary of the Study

This study was created to examine the use of social media by school principals. The major research questions that guided this study were

1. Are there significant differences across gender groups on usage of social media for communication?
2. Are there significant differences across educational experience groups on usage of social media for communication?
3. Are there significant differences across age groups on usage of social media for communication?

4. Are there significant differences across gender groups on usage of social media for professional development?
5. Are there significant differences across educational experience groups on usage of social media for professional development?
6. Are there significant differences across age groups on usage of social media for professional development?
7. Are there significant differences across school enrollment on usage of social media for communication?
8. Are there significant differences across school categories on usage of social media for communication?
9. Are there significant differences across locality on usage of social media for communication?
10. Are there significant differences across school enrollment on usage of social media for professional development?
11. Are there significant differences across school categories on usage of social media for professional development?
12. Are there significant differences across locality on usage of social media for professional development?
13. Do school principals prefer one social media site to another?
14. Do school principals in Indiana follow the national trend in social media use?

As reported in the review of literature, social media has become a focus of use to communicate school information. The literature supports the use of social media to advertise and promote school events, school news, and school successes (Ferriter et al., 2011). This study

supports the use of social media to communicate pertinent information. When asked, respondents indicated that they use social media to connect with families. Specifically, high school leaders with an average mean of 1.52 reported using social media more than any other school category. Elementary and middle school leaders had an average mean of 1.31, and school leaders indicating “other” for their category reported 1.46 as their average mean. The results to the study do not show that a larger percentage of respondents use social media. One may conclude that electronic resources may not be the main focus of communication.

Another finding that was determined as significant was gender using social media for professional development. The study found that women (1.38 average) used social media for professional development more than men (1.24 average). It is possible that women use social media for many other means and include this resource in their search for professional development. The study did not show a significant difference in women using a specific social media site more than men.

All other research questions resulted in no significant differences with studying social media use for communication and professional development. The literature points back to generational gaps referenced as digital natives and digital immigrants. This study collected results from one participant who was 29 years of age or younger. It is possible this respondent would be considered a digital native or have interests similar to a digital native due to being raised in a society of technology for a longer period of time than other respondents in the study. Digital natives have been defined as individuals who were born into a society with technology (Prensky, 2001a). It is possible the results may show a significant difference when comparing the two types of generations. The results do demonstrate that social media use does not have a prevalent use in the state of Indiana and that may be due to the generational difference. The

largest group to participate in the study was between the ages of 40-59 ($N=210$). The largest group of participants does not meet the digital native definition. It is possible the results of not using social media could be due to the generational differences.

When performing a study focused on social media, one might assume that participants young in age and with minimal years of experience would embrace and incorporate social media in all facets of school communication and professional development. The results of this study do not support all of those beliefs. The age category with the largest average mean was 40-49 years of age, compared to 39 and under and 60 and older. When using years of educational experience, the theory of fewer years was found to be true. Administrators with 10 years or less of experience reported an average mean of 1.41 compared to 11-20 years (1.32) and 21 or more years of experience (1.26). The results support the belief that those with fewer years of experience may use social media for professional development and school communication compared to those with more administrative experience.

Implications

Social media has created a way for millions of people to connect all over the globe. The powerful tool began with college students and has expanded to many uses in the 21st century. Technology has allowed many generations to connect and explore a world they may have never known. Society has never been more connected than the current time (Boyd & Ellison, 2008).

As society moves deeper into the 21st century, social networking becomes more prevalent in education. In a recent survey, the results show a 34% growth in social network membership since 2009 (*2012 Survey of K-12 Educators on Social Networking, Online Communities, and Web 2.0 Tools* (2012). Of those surveyed, Facebook remained the first choice of social networking sites. As with the current Indiana study, the 2012 national study found

educators use social networking sites to connect with family and friends, collaborate with colleagues and finding resources (*2012 Survey of K-12 Educators on Social Networking, Online Communities, and Web 2.0 Tools* (2012).

The implications of this study and their application to school principals are as follows:

1. Although this study showed support for social media use for school communication, the responses varied on which site was preferred. Educators may be interested in using social media for school communication; however, the site needs to match the user. If patrons prefer one social media site over what the school may be using, then the communication is not being reached. Schools will need to clearly communicate which social media site will be used to reach all patrons.
2. The study found that women, over men, prefer social media for professional development. The results indicated that female administrators used social media for professional development more than men. The disparity may be due to the lack of training in the use of social media. Men may also not see the benefits or time saving factor when using social media as a professional development resource. Professional development can be obtained through sites such as Twitter, Facebook, and many other blogs. School administrators will need to invest in resources to ensure the recipients of professional development have knowledge pertaining to such sites. Professional development through social media may not be beneficial if the educators do not have accounts, access to the Internet, or an interest in connecting to a social media site. Trainers will need to provide support and encouragement for accessing the professional development. If the process is not well developed, only a portion of the faculty may receive the preferred professional development.

3. According to this study, social media is preferred for personal use. Respondents did not indicate social media as beneficial for professional use. Even though the findings indicated social media is not being used for professional development, there was another strong finding. Most respondents indicated a personal use, which may be important for school corporations. Families, patrons, business, and media use social media. This may be a quick means to promoting excellence and the activities within a school system. If administrators indicate they use social media for personal use, then may be others are using it as well. If a school corporation moves to social media as its main source of communication, they will need to provide a support base prior to moving forward. Educators will need to see the importance of the change and understand the benefits. The conversion to using social media for professional reasons may be simple, but an understanding will need to take place prior to implementation.
4. Educator concerns over privacy with social media use may be problematic for school corporations. Studies have shown that educators are reluctant to engage in social media use because of privacy issues. Educators walk a fine line of creating connections with students and providing a safe environment. There may be a negative perception from non-educators if social media sites invite students to participate. School corporations will need to provide a support system for educators on the use of social media. The support system may include education for Internet safety, communication to patrons about the creation of social media sites, and providing Internet safety classes for students and parents.
5. Incorporating social media within a school setting may be in violation of school board

policies. As the 21st century learning skills are incorporated in the school settings, many may be violating school board policy. Or perhaps school board policy is preventing schools from expanding their offerings and curriculum. School board policies need composed in such a way that supports or encourages the use of social media. Policy should not be hindering the growth of a student or school.

Historically, policies have been in place to protect students and educators, but some may be slowing down the progress of educating children. Additionally, using social media to communicate with patrons may require school boards to visit the policies and modify them to support the electronic communication.

6. The results of the study show administrators between the ages of 40-59 use social media the most. This finding contradicts some of the research on age groupings using social media. There is a tendency to assume that younger generations will gravitate towards social media more than others. However, sound educational leaders embrace the environment that surrounds them and seek new innovated means. Due to the difference in digital immigrants and digital natives, a generational gap may be created. Depending on the timeline of social media implementation, school corporations may be hindered because of the generational gap. Newer educators may be more eager and interested than experienced educators because of the surrounding environments. Newer teachers are exposed to the most current technology and social media. Educators with more experience may not be interested and will not be seeking the current trends in social media. The resistance may be greater with the experienced teachers because of the lack of knowledge. If the proper training and support systems are implemented, great gains can be made among all educators.

Collaboration can take place among generations and may close the technology generation gap.

It was determined that social media was not significantly used by school principals. In all, 356 administrators responded to the survey. Nineteen percent of the state administrative population indicated some form of response to the survey and indicated that they use social media for personal or professional use. Even though the study demonstrated that there was no significant use in statistical analysis, the large percent of respondents demonstrated a current trend. The national survey of K-12 educators also demonstrates the increase of social media use since 2009 (*2012 Survey of K-12 Educators on Social Networking, Online Communities, and Web 2.0 Tools* (2012)). The total number of survey respondents may be due to the current topic and the contemporary nature of social media use. Social media may not be new in terms of technology; however, educators are still attempting to embrace the concept of sharing through technology.

Of the 1,931 administrators in Indiana, 19% responded. These data can assist in future research or implications. Educators have not been comfortable with social media for various reasons. Most educators have been using social media for personal reasons, e.g., to connect with friends; however, they have not incorporated social media in the educational setting. For those that have used social media, it has been minimal and mainly for communicating to friends or colleagues only. As the 21st century progresses and generations shift, the use of social media in educational settings may increase. Administrators will need to acquire other venues to reach patrons and colleagues. Due to efficiency and time constraints, social media may become the preferred method of communication and professional development.

In conclusion, the study provided information that informs readers that the principals in

the state of Indiana do not use social media to a large degree. Of those social media users, the results demonstrated that digital natives and digital immigrants both use social media. The research indicated a generational gap due to the definition of digital natives and digital immigrants; however, the study supported the fact that all generations are using social media. If a user relies on social media for personal use, it is very probable he or she will incorporate social media for professional use. This dispels the generational gap between native and immigrants. More importantly, it supports the theory of more social media use allows the opportunity to incorporate it in all aspects of life. It is possible the lines of personal and professional social media use can become blurred and may have an impact on educators. Social media can positively impact education, but can also create great concern among administrators. The line for social media etiquette can be very blurred when included with First Amendment rights. This study demonstrates that Indiana is beginning to use social media and the increase of use may arrive sooner than expected. School corporations may want to consider providing social media etiquette for teachers and administrators. Informing the faculty of correct procedures and acceptable use guidelines will help promote a positive social media experience.

Research Recommendations

Based on the perceived levels of use of social media as school principals, the following recommendations for future research can be made:

1. A qualitative research design should be conducted to determine if social media use creates more tolerance for social media among educators.
2. A quantitative research design should be conducted to determine the support provided for social media use within a classroom.
3. A comparative study should be conducted to examine the perceived effectiveness of

social media versus face-to-face interaction among patrons.

4. A study should be done from the perspective of patron preference towards social media use from a school setting.
5. A study should be conducted that examines the correlation between training or professional development provided to principals prior to the implementation of social media versus the perceived effectiveness of social media use.
6. A study should be conducted to determine if social media use is impacted due to the concerns of personal privacy.

REFERENCES

- Adams, D. (2011). *The history of social media*. Retrieved from <http://www.instantshift.com/2011/10/20/the-history-of-social-media/>
- Boyd, D. M., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*, 210-230.
- Brock, K., & Bennett, E. K. (2001). Plugging in: Empowering a community of professional learners. *Knowledge Quest, 30*(1), 13-15. Retrieved from ERIC database. (No. EJ637640)
- Brooks-Young, S. (2010). *Teaching with the tools kids really use*. Thousand Oaks, CA: Corwin.
- Cotton, K. (2003). *Principals and student achievement: What the research says*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Creswell, J. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Curtis, D. A. (2011). *The brief history of social media*. Pembroke, NC: University of North Carolina at Pembroke, Mass Communication Department. Retrieved from <http://www.uncp.edu/home/acurtis/NewMedia/SocialMedia/SocialMediaHistory.html>
- Demski, J. (2012, June 7). Seven habits of highly effective tech-leading principals. *THE Journal*, 1-9. Retrieved from <http://thejournal.com/articles/2012/06/07/7-habits-of-highly-effective-tech-leading-principals.aspx>
- Drucker, P. (2001). *The essential Drucker*. New York, NY: Harper Collins.

- Ferriter, W. M., Ramsden, J. T., & Sheninger, E. C. (2011). *Communicating and connecting with social media*. Bloomington, IN: Solution Tree.
- Gardner, H. (1995). *Leading minds: An anatomy of leadership*. New York, NY: Basic Books.
- International Society for Technology Education. (2009). *National educational technology standards (NETS) A*. Retrieved from <http://www.iste.org/docs/pdfs/nets-a-standards/pdf?sfvrsn=2>
- Jacobs, H. H. (2010). *Curriculum 21: Essential education for a changing world*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Koutropoulos, A. (2011). Digital natives: Ten years after. *Journal of Online Learning and Teaching*, 7(4). Retrieved from http://jolt.merlot.org/vol7no4/koutropoulos_1211.htm
- Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works*. Alexandria, VA: Association for Supervision and Curriculum Development.
- The Nielsen Company. (2009). Retrieved from http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen_globalfaces_mar09.pdf
- O'Dell, J. (2011). *The history of social media* [infographic]. Retrieved from <http://mashable.com/2011/01/24/the-history-of-social-media-infographic/>
- Osborne, N. (2011). *Using social media in education, part 1: Opportunity, risk, and policy*. Retrieved from <http://www.ibm.com/developerworks/industry/library/ind-educ-social-media1/>
- Prensky, M. (2001a). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-5. Retrieved from <http://www.marcprensky.com/writing/prensky%20-%20digital%20natives,%20digital%20immigrants%20-%20part1.pdf>

Prensky, M. (2001b). Digital natives, digital immigrants, part II: Do they really think differently?

On the Horizon, 9(6), 12-21. Retrieved from

<http://www.marcprensky.com/writing/prensky%20-%20digital%20natives,%20digital%20immigrants%20-%20part2.pdf>

Roblyer, M. (2000). The national educational technology standards (NETS): A review of definitions, implications, and strategies for integrating NETS into K-12 curriculum.

International Journal of Instructional Media, 27(2), 133-146. Retrieved from ERIC database. (No. EJ606803)

School principals and social networking in education: Practices, policies, and realities in 2010.

(2010). Retrieved from <http://www.edweb.net/fimages/op/PrincipalsandSocialNetworkingReport.pdf>

Standbury, M. (2011, September 9). Five characteristics of an effective 21st century educator.

eSchool News. Retrieved from <http://www.eschoolnews.com/2011/09/09/five-characteristics-of-an-effective-21st-century-educator/>

A survey of K-12 educators on social networking and content-sharing tools. (2009). Retrieved from <http://www.edweb.net/fimages/opK12Survey.pdf>

2012 Survey of K-12 educators on social networking, online communities, and web 2.0 tools.

(2012). Retrieved from <http://www.edweb.net/fimages/op/reports/Educators-and-Social-Media-2012-web.pdf>

Van Meter, E., & Murphy, J. (1997). *Using ISLLC Standards to strengthen preparation*

programs in school administration. Washington, DC: Council of Chief State School

Officers. Retrieved from http://www.ccsso.org/documents/2008/educational_leadership_policy_standards_2008.pdf

- VanSlyke, T. (2003). Digital natives, digital immigrants: Some thoughts from the generation gap. *The Technology Source Archives*, 1-7. Retrieved from http://technologysource.org/article/digital_natives_digital_immigrants/
- Ward, S. (2011). *Social media definition*. Retrieved <http://sbinfocanada.about.com/od/socialmedia/g/socialmedia.html>
- Wehling, R. L. (2007). *Building a 21st century U.S. education system*. Washington, DC: National Commission on Teaching and America's Future.
- Wheeler, S. (2012, February 10). *Researching social media in education: What can we learn?* Retrieved <http://steve-wheeler.blogspot.com/2012/02/damascus-road.html>
- Windsor, T. (2009). *Zero percent idle*. Retrieved from <http://timwindsor.com/2009/01/02/who-are-the-digital-natives-and-what-do-they-want/>

APPENDIX A: SURVEY TO BE SENT TO INDIANA PRINCIPALS

Social Media Survey

Social Media Definition: A connection of web-based sites that allows users to share information about themselves and to create a partnership with other like users.

1. Please indicate how often you use social media in the role of a principal and for personal use.

	Professional Use	Personal Use
	1 = Not at all	1 = Not at all
	2 = Periodically during the week	2 = Periodically during the week
	3 = Daily	3 = Daily
	4 = Several times each day	4 = Several times each day
Facebook	1 2 3 4	1 2 3 4
Twitter	1 2 3 4	1 2 3 4
Google +	1 2 3 4	1 2 3 4
MySpace	1 2 3 4	1 2 3 4
Pinterest	1 2 3 4	1 2 3 4
LinkedIn	1 2 3 4	1 2 3 4
Other Social Media Sites	1 2 3 4	1 2 3 4

2. Please use the following scale to identify how effective you believe social media is for principals.

	Belief in Effectiveness
	1 = Ineffective
	2 = Somewhat effective
	3 = Effective
	4 = Highly effective
Facebook	1 2 3 4
Twitter	1 2 3 4
Google +	1 2 3 4
MySpace	1 2 3 4
Pinterest	1 2 3 4
LinkedIn	1 2 3 4
Other Social Media Sites	1 2 3 4

3. Please use the following scale to identify which social media is used for your school's communications.

Use of Social Media for School Communications

- 1 = Not at all
 2 = 1 day per week
 3 = 2-3 days per week
 4 = 4-5 days per week
 5 = 6-7 days per week

Facebook	1 2 3 4 5
Twitter	1 2 3 4 5
Google +	1 2 3 4 5
MySpace	1 2 3 4 5
Pinterest	1 2 3 4 5
LinkedIn	1 2 3 4 5

4. Please use the following scale to identify how often you use social media as a professional development resource.

Professional Development Resource

- 1 = Not at all
 2 = 1 day per week
 3 = 2-3 days per week
 4 = 4-5 days per week
 5 = 6-7 days per week

Facebook	1 2 3 4 5
Twitter	1 2 3 4 5
Google +	1 2 3 4 5
MySpace	1 2 3 4 5
Pinterest	1 2 3 4 5
LinkedIn	1 2 3 4 5
Other Social Media Sites	1 2 3 4 5

5. Please use the following scale to identify how effective you believe social media is in general.

Belief in Effectiveness
 1 = Not at all
 2 = Somewhat effective
 3 = Effective
 4 = Extremely effective

When used for school communications.	1 2 3 4
When used for emergency communications.	1 2 3 4
When used to promote student / school excellence.	1 2 3 4
When used for classroom instruction.	1 2 3 4
When used for classroom communication outside the school day.	1 2 3 4
When used by students for classroom assignments.	1 2 3 4
When used by students for classroom engagement.	1 2 3 4
When used for connecting with other educators around the globe.	1 2 3 4
When used for teaching 21st century skills.	1 2 3 4

6. Please use the following scale to identify access to social media through your school's Internet filters.

Access Through School Internet Filters
 1 = Not at all
 2 = If requested
 3 = On a limited basis
 4 = Open all the time

Facebook	1 2 3 4
Twitter	1 2 3 4
Google +	1 2 3 4
MySpace	1 2 3 4
Pinterest	1 2 3 4
LinkedIn	1 2 3 4
Other	1 2 3 4

7. How are you using General Social Networking Sites for personal use? (Select all that apply)
- To connect with friends.
 - To connect with family members.
 - To connect with professional peers and colleagues.
 - I am not a member of any General Social Networking Site.
 - To make connections for job and career opportunities.
 - To generate income.

8. How are you using Professional and Education Social Networking Sites for professional use?
(Select all that apply)

- A. To connect with professional peers and colleagues.
- B. To stay current with the latest technology.
- C. To make connections for job and career opportunities.
- D. To connect with friends.
- E. To connect with family members.
- F. To generate or try to generate income.
- G. Don't use it.

9. Do you feel social media impacts the effectiveness of school instruction?
Explain . . .

10. What is your gender?

- 1. Male
- 2. Female

11. What is your age?

- 1. 29 or under
- 2. 30 – 39
- 3. 40 – 49
- 4. 50 – 59
- 5. 60 +

12. How many total years have you served as a principal of this or other schools, including this current year?

13. How many years of teaching experience, regardless of level, did you have prior to taking your present position? Do not include years as a full-time administrator or supervisor.

14. Please enter your school enrollment?

15. What grade level of school are you classified by the Indiana Department of Education?

1. Elementary
2. Middle School
3. High School
4. Other

16. What is the best descriptor of your school's locality?

1. Urban
2. Suburban
3. Small Town
4. Rural

APPENDIX B: EMAIL TO PRINCIPALS



USE OF SOCIAL MEDIA AMONG PRINCIPALS

Colleagues,

You are being invited to participate in a research study about the use of social media among school principals in the State of Indiana. This study is being conducted by Neal McCutcheon, as part of a doctoral dissertation with Dr. Todd Whitaker serving as the faculty sponsor from the department of Educational Leadership at Indiana State University.

Survey link: https://indstate.qualtrics.com/SE/?SID=SV_2bhY40qMP54Ojkh

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide will be used to provide a better understanding of social media use between school principals in the State of Indiana. The survey will take approximately ten minutes to complete. The information learned in this study will provide general benefits in the study of social media use among principals and may provide global benefits for principal preparations.

This survey is anonymous. No identifying information including names, email addresses, or computer IP addresses will be collected; however, absolute anonymity cannot be guaranteed through the use of the Internet. Your answers and identity will not be able to be identified in this survey. In addition, your participation or non-participation in this survey will also not be identified. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

Please follow this link to participate in the study:
https://indstate.qualtrics.com/SE/?SID=SV_2bhY40qMP54Ojkh

Your participation in the study is voluntary *and extremely appreciated!* By completing the survey you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason.

If you have any questions about the study, please contact Neal McCutcheon at 7501 E. 700 S., Lafayette, IN 47905 (765)269-8350 or nmccutcheon@sycamores.indstate.edu or

nmccutcheon@tsc.k12.in.us . You may also contact Dr. Todd Whitaker at Indiana State University, UH 317B, Terre Haute, IN 47809 (812) 237-2904 or Todd.Whitaker@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by email at irb@indstate.edu.

Your participation is sincerely appreciated!

Sincerely,

Neal McCutcheon

Neal McCutcheon, EdS
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APPENDIX C: FOLLOW UP EMAIL TO PRINCIPALS



Good morning Colleagues!

Thank you to the several hundred administrators who already participated in the survey *Social Media Use among Principals*. Your quick response was greatly appreciated!

If you haven't completed the survey, don't miss out! Join the many administrators on sharing your experience with Social Media. The link will be active for the remainder of this week. Please use the link below to complete the survey.

Survey Link: https://indstate.qualtrics.com/SE/?SID=SV_2bhY40qMP54Ojkh

Sincerely,

Neal McCutcheon

Neal McCutcheon, EdS
Principal
Wainwright Middle School
7501 E. 700 S.
Lafayette, IN 47905
765-269-8350
765-269-8359 fax

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APPENDIX D: CONSENT TO PARTICIPATE IN RESEARCH

USE OF SOCIAL MEDIA AS A SCHOOL PRINCIPAL

You are being invited to participate in a research study about the use of social media among school principals in the State of Indiana. This study is being conducted by Neal McCutcheon as part of a doctoral dissertation with Dr. Todd Whitaker serving as the faculty sponsor from the department of Educational Leadership at Indiana State University.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide will be used to provide a better understanding of social media use between school principals in the State of Indiana. The survey will take approximately ten minutes to complete. The information learned in this study will provide general benefits in the study of social media use among principals and may provide global benefits for principal preparations.

This survey is anonymous. No identifying information including names, email addresses, or computer IP addresses will be collected; however, absolute anonymity cannot be guaranteed through the use of the Internet. Your answers and identity will not be able to be identified in this survey. In addition, your participation or non-participation in this survey will also not be identified. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

Your participation in the study is voluntary *and extremely appreciated!* By completing the survey you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason.

If you have any questions about the study, please contact Neal McCutcheon at 7501 E. 700 S., Lafayette, IN 47905 (765)269-8350 or nmccutcheon@indstate.edu. You may also contact Dr. Todd Whitaker at Indiana State University, UH 317B, Terre Haute, IN 47809 (812) 237-2904 or Todd.Whitaker@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (818) 237-8217, or by email at irb@indstate.edu.

APPENDIX E: PERMISSION TO USE NATIONAL SURVEY

Neal,

I helped orchestrate the study. It would be great if you wanted to duplicate it in Indiana. Did you also see an early study we did - see attached.

Lisa

--

Lisa Schmucki
 Founder & CEO
 edWeb.net

lisa@edweb.net
 800-575-6015 ext 100
 908-407-2755 (cell)
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On Sun, Jun 10, 2012 at 12:17 PM, McCutcheon, Neal <nmccutcheon@tsc.k12.in.us> wrote:

Good afternoon. I am working on my PhD on the effects of social media in schools. While collecting information for my Literature review, I can across the results from the 2010 study: School Principals and Social Networking in Education: Practices, Policies, and Realities in 2010. I am intrigued with this study and would like to connect with someone involved with this study. I would also like to seek permission to duplicate the study in the State of Indiana. I am considering doing a comparison of Indiana versus the National results.

Can you please provide a contact name with someone who can help me seek permission to duplicate the study and to receive more information about the study?

Thank you so much for your time.

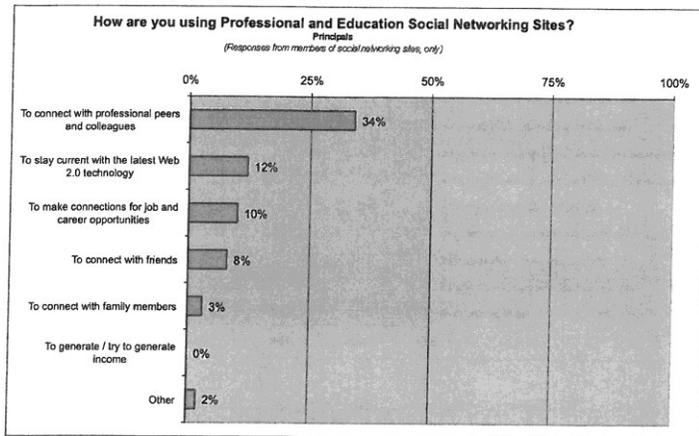
Sincerely,

Neal McCutcheon, EdS
 Principal
 Wainwright Middle School
 7501 E. 700 S.
 Lafayette, Indiana 47905
 765-269-8350
 765-269-8359 fax
www.tscschools.net

APPENDIX F: NATIONAL SOCIAL MEDIA SURVEY RESULTS

The results below represent items selected from the national survey.

Principals prefer professional/educational social networks for professional use



Principals use general social networks primarily for personal use

