School Connectedness with High School Students and School Leaders Using

Social Media

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Dedication

"We gain strength, and courage, and confidence by each experience in which we really stop to look fear in the face... we must do that which we think we cannot."

Eleanor Roosevelt

I dedicate this to my family – Steve, Kalani, Mikenna, Halle, and Mom and Dad. You are my system of strength, courage, and confidence. You wouldn't let me quit. I love you all from the bottom of my heart!

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ABSTRACT

Technology has become a vital element of society today. One important piece of the technological infrastructure is social media, which has allowed people to communicate, form online communities, and receive information quickly and efficiently. Colleges and universities have incorporated social media into school culture, classrooms, and online classes. The result has been positive, and K-12 schools have been slowly following the trend. School administrators who have implemented social media usage into their districts have discovered stronger relationships with stakeholders and communities that are more engaged.

This quantitative study examined the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders. Self-Determination Theory, namely relatedness, provided the basis for the study. Sixty-six high school students from a Midwestern suburban school district were surveyed regarding their feelings of school connectedness in relation to social media interactions with school leaders. Results of the survey indicated positive correlations between the students' feelings of school connectedness and social media interactions with school leaders.

CHAPTER I: INTRODUCTION

In 1990, the first website and server went live. At that time, few were aware of the Internet's purpose and potential (Pew Research Center, 2014). In 1994, three percent of U.S. public school classrooms had Internet access; however, by 1998, fifty-one percent of U.S. public school classrooms had Internet access (US Department of Education, 2006). The rapid adoption of Internet usage demonstrates society's acceptance of continual technology changes. Similarly, in 1997, the first social networking site, by definition, was launched. SixDegrees.com allowed users to create profiles and have friend lists (Boyd & Ellison, 2010). The potential for users to stay connected no matter their location provided limitless opportunities in both business and education. Educators began to recognize the possibilities that the Internet and social networking sites provided. In 2005, Facebook became available for high school student use (Kornblum, 2006). While the use of Facebook and other social media sites was primarily social in the beginning, some educators ventured to employ these sites to reach their school populations. In 2009 a survey of 1200 school administrators found that several of them had embarked into the murky world of social media and were using it to communicate information to their respective school districts (School Principals and Social Networking, 2010). Even though some educators risked diving into the pool of social media, many refrained. The approximate eighteen-year period between the emergence of public Internet and the use of social media in schools illustrates the hesitation that schools often demonstrate in implementing new and unfamiliar technology.

Background of the Problem

The explosion of social media has presented the opportunity for people all over the world to connect with each other. Information about people and events is readily available in real time, and ordinary people can potentially communicate with famous people and experts. In 2015, 65%

of American adults were using social media on a regular basis (Pew Internet, 2015). While adult

users have steadily increased, young American adults show a 90% social media usage rate (Pew

Internet, 2015). The upsurge in social media usage provoked school leaders to reassess their

views on social media. Social media not only allowed school administrators and leaders to

disseminate information quickly and efficiently, but it also allowed parents and students to

respond to communications. Consequently, more school leaders have traded the traditional

newsletter for social media communication vehicles. While blogs have proven to be a popular

form of communication, administrators and school leaders have also opted to use Twitter to

inform the school community (Couros & Jarrett, 2012). Principal Chris Wejr discussed this shift

in communication in his blog, *Connected Principals*. Social media has altered several

components of his job as principal including the way he communicates with parents. The

difference in method has created a higher parent response (Wejr, 2011).

As school district leaders and administrators have observed their colleagues' success

implementing social media as a means to connect, more have been inspired to incorporate social

media into their own communications. Former principal Eric Sheninger found social media to be

a logical choice for communication. As a principal, he posted about events and shared pictures

with his school community. Since the majority of Americans are on social media, it made sense

to connect with his school community this way (Ferriter, 2010). Additionally, the use of blogs,

tweets, and Facebook to spread positive school news netted the attention of national media

outlets, and they produced stories about the pioneering communication methods (Sheninger,

2015). Constructing that connection has been one of the advantages that school leaders have

witnessed with the integration of social media (Cox, 2012). Connected parents and students help

build a sense of community, increasing involvement as well as achievement. "Integrating social

media tools into a school's work is essential if leaders hope to build meaningful relationships with stakeholders" (Ferriter, 2010). These stakeholders include both parents and students.

While the use of social media for school communications has fostered a sense of community as well as created connectedness with parents, school leaders have discovered that it builds connectedness with students as well. These connections have allowed administrators to get feedback and perspective from students. Sheninger's students informed him that they preferred Facebook to receive information regarding school and the district. The students then had access to real time news and events and took part in community conversations that they did not have access to previously. This also allowed Sheninger to hear the students' point-of-view (Ferriter, 2010). Sheninger also realized that the Facebook page became a virtual space where students, parents, alumni, and community could essentially gather (Sheninger, 2015). Interactions with students, especially where the students responded and gave feedback, were vital in cultivating student connectedness.

Millard Public Schools, located in Omaha, Nebraska, has a social media savvy superintendent. Dr. Jim Sutfin utilizes Twitter to connect with the students in his district on a regular basis. Snow days have been a popular topic when it comes to Twitter interaction. Students have Photoshopped Sutfin's face onto snowflakes, snowmen, and *Frozen*'s Elsa while pleading for a snow day (Dejka, 2015). More recently, Sutfin posted a Twitter poll asking students if they would have school the next day when snow was in the forecast. Displaying his sense of humor, Sutfin listed all the choices as "yes" (jsutfin, 2016). Although Sutfin enjoys the humorous banter on topics such as snow days, his ultimate goal is to be accessible to students and build those relationships. His efforts have resulted in success. Students view him as someone they can talk to who understands them, but also understand that he is a school

administrator (Dejka, 2015). Sutfin's use of social media allowed students to view him as human as well as a school leader.

The relationships formed with students using social media are paramount in building connections, or school connectedness. School connectedness happens when students have a sense of belonging, like school, and believe that school staff are caring and supportive. Furthermore, students who have solid friendships and are involved in extracurricular activities are also inclined to feel a sense of belonging, or community (Blum, 2005). Not only do feelings of school connectedness contribute positively to academic achievement, but also to a student's well-being (Libbey, 2004; Ryan & Deci, 2000). Other factors that influence feelings of school connectedness are the ability to talk to teachers and staff, feeling respected at school and teacher and staff interest in students (Libbey, 2004). The proliferation of social media has provided teachers and school leaders another avenue to build relationships that in turn foster school connectedness. School leaders view this trend as positive.

The concept of connectedness stems from the psychological need for relatedness. Ryan and Deci's (2000) self-determination theory focuses on the three psychological needs of autonomy, competence, and relatedness. The facet of relatedness is an integral part of connectedness as feelings of relatedness contribute to social growth and personal well-being which, in turn, impact feelings of connectedness (Ryan & Deci, 2000). Furthermore, satisfaction of the need for relatedness correlates to increased academic achievement, self-efficacy, effort, engagement as well as higher expectations (Furrer & Skinner, 2003). Relatedness contributes to students' sense of belonging, or connectedness, as well (Furrer & Skinner, 2003). Consequently, since the feelings of relatedness may foster thoughts of school connectedness, benefits such as higher levels of engagement and achievement are demonstrated in addition to personal well-

being (Figure 1). Furthermore, levels of student involvement have shown to increase as feelings

of school connectedness proliferate which creates a reciprocal relationship (Libbey, 2004).

Moreover, a 2011 study by Sheldon, Abad, and Hinsch found that college students who used

Facebook felt connected and therefore their need for relatedness was satisfied (p. 70). Findings

such as this support school leaders' use of social media to connect with their student populations.

As Figure 1 demonstrates, technology and social media provide a new path of communication

which can ultimately increase feeling of school connectedness.
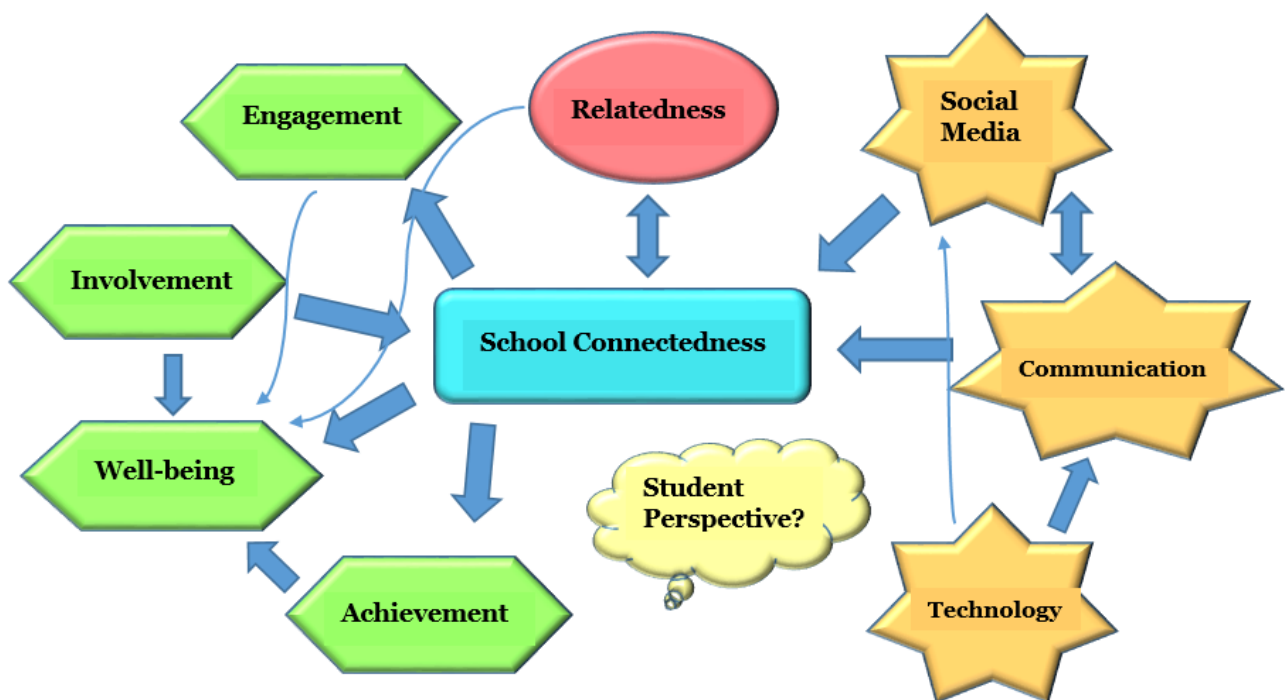
Figure 1

Connecting School Connectedness

Statement of the Problem

As K-12 school districts slowly embrace technology and social media, administrators and school leaders are discovering new ways to connect with the community. Administrators believe this type of interaction builds connectedness with parents and students (Cox, 2012; Sauers & Richardson, 2015); however, there is little information regarding student perspective on this type of communication (Cox, 2012; McLeod & Richardson, 2011). Administrators and school leaders at the 9 – 12 level can utilize social media to try to build connectedness, or a sense of community, with their student population, but more research is needed regarding students' perspectives of these attempts. Currently, published research regarding student perspectives is basically non-existent. "We cannot say that we know what effective technology leadership practices look like in elementary and secondary schools. We simply do not have enough high-quality research to inform best practice" (McLeod & Richardson, 2011, p. 236). Not only is research lacking, it is critical for school leaders to keep abreast of the constant changes. "Digital technologies…are fostering complete upheaval in how we think, play, and work" (McLeod & Richardson, 2011, p. 237). The concept of using social media to connect with students has not been in existence long enough to gather sufficient data. Consequently, in order to get a true measure of connections built between students and school leaders as well as students' feelings of school connectedness, student perspectives must be examined.

Purpose of the Study

The purpose of this study is to examine the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban school district. Furthermore, the study assesses the relationship between

the feelings of those students who used social media to connect with school leaders and those same students' levels of engagement and achievement.

Research Question

What is the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban district? Additionally, are the social media interactions with school leaders related to those students' engagement and achievement? Finally, are there differences in male and female high school students' use of social media, feelings of connectedness, engagement and achievement?

Sub Questions

- What degree of school connectedness exists for students who interact with school leaders on social media?

- Is student achievement linked to social media interactions with school leaders?

- Is there evidence from the students' perspectives that school leaders' social media use to connect with the student population is related to student engagement?

- How do students perceive school leaders who use social media to communicate and connect with the student body?

Definition of Terms

The following list provides operational definitions for key terms used in this study.

Achievement. Something that has been accomplished through effort, or the result of hard work (Merriam- Webster, 2015). For the purpose of this study, achievement is defined as student Grade Point Averages as well as achievements and recognition in activities.

Communication. For the purpose of this study communication refers to giving or receiving information or electronic interactions.

Involvement. Participation in groups or activities, membership in specific groups (Libbey, 2004).

Relatedness. When a student believes or trusts that he or she has the support of others at school; the belief in faculty and peers in the school surroundings; feelings of belonging (CDC, 2009).

School connectedness. "The belief by students that adults and peers in the school care about their learning as well as about them as individuals" (CDC, 2009, p. 3).

School leaders. For the purpose of this study, school leaders include, but are not limited to teachers, coaches, administrators, and superintendent who use social media to communicate with students.

Sense of belonging. The extent to which students feel personally accepted, respected, included, and supported in the school social environment (Goodenow & Grady, 1993).

Sense of community. Integration of people into networks and structures that provide feelings of belonging, identification and meaning (Sonn, Bishop, & Drew, 1999).

Social media. Forms of electronic communication (as Web sites for social networking

and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (as videos) (Merriam-Webster, 2015).

Student engagement. The degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education (Glossary of Ed. Reform, 2015). Students value school-related activities, academics, and school relationships (adult and peer) (Lohmeier & Lee, 2011).

Student population. Students within a specific grade, school, or district. For the purpose of this study, student population may also refer to students in a specific region.

Well-being. Positive psychological or social adjustment (Chu, Saucier, & Hafner, 2010).

Assumptions, Limitations and Delimitations

Assumptions. As this study surveyed student perspectives regarding school connectedness through social media, it was assumed that students participating in this study were enrolled in a school district with a strong technology presence as well as school leaders who interact with students via social media. Since all participant information was kept confidential, it is also assumed that participants were honest regarding their thoughts and opinions regarding usage of social media and feelings of connectedness. Another assumption is that students who volunteered to take part in this study used social media on a regular basis and were comfortable with such interactions. A final assumption is that the researcher set all bias aside while conducting this study.

Limitations. One limitation for this study was participant age. Participants were high school juniors and seniors who reported utilization of a social media account regularly in the last

two years. Additionally, parent permission was required, limiting the pool of participants to only those whose parents agreed to let them participate. A further limitation was that participants were selected on a volunteer basis. Consequently, there may have been students who had a stronger social media presence, or strong feelings of connectedness who did not participate. Finally, the study took place in one large suburban Midwestern school district of above average income so participants may not be representative of the general population in the United States.

Delimitations. One delimitation of the study was that it was performed at one high school in one school district. Although student perspectives from multiple districts as well as multiple schools may have been valuable, the technology and social media usage may not have been equal so comparisons would not have been accurate. Another delimitation for this study is that the superintendent, who encouraged the technology and social media presence and actively interacted with students, had been the superintendent for three years. Previously, he was an assistant superintendent in charge of human resources. As a result, the compelling social media presence had only been in effect for three years at the time of the study. Since the social media usage had been strong and effective, students' response was enormous based on the superintendent's Twitter account. For this reason, it was deemed acceptable to use this particular district.

Summary

The focus of this chapter was to illustrate two major points as well as provide background for the issue of lack of student perspective regarding school leaders' use of social media to connect with school populations. Schools have been historically slower than the business or medical world to adopt technologies. With the influx of technological means to connect students

to leaders, innovative thinkers, and each other, schools have revisited the idea of using social

media to connect to their respective populations. School leaders who have utilized social media

to reach out to parents have discovered that they can also create meaningful connections with

students. While this idea has taken hold with many school leaders, there is little to no research

regarding students' perspectives of these connections.

    Secondly, research shows that students who feel like they are a part of their school

community may become more involved, have higher levels of engagement as well as higher

levels of academic achievement. The school connection fulfills the need for relatedness which

cycles back to engagement, achievement, and feelings of belonging. Chapter two discusses the

necessity for research to clarify students' perspectives of the connections made through social

media to validate the idea that not only are connections being made, but those students are

experiencing higher levels of achievement and engagement.

CHAPTER II: LITERATURE REVIEW

A lack of research investigating administrators and school leaders' use of technology, particularly to promote school connectedness and a sense of community with their district stakeholders, is emphasized in this chapter and presents a need for further research on the subject. Moreover, literature examining student perspectives of school leaders' technology use to further school connectedness is basically non-existent. This chapter takes an in-depth look at the components of school connectedness, social media, and the literature associated with it. The study is framed by Self-Determination Theory (SDT) and predominantly the need for relatedness, one of the three components of SDT (Ryan & Deci, 2000). Relatedness parallels connectedness, or sense of belonging, and has been determined to be a basic need. When this need is met, positive effects occur (Jose, Ryan, & Pryor, 2012; Ryan & Deci, 2000). Both connectedness and relatedness foster a sense of belonging contributing to a person's well-being. Consequently, increasing students' school connectedness can yield positive results, so administrators and school leaders strive to nurture that connection.

As the Digital Age continues to explode, school leaders must examine new methods of communication and inclusion. Using technology to expand students' sense of belonging and school connectedness is a method that administrators and school leaders are beginning to explore. One of the approaches school leaders are exploring is the use of social media to reach their communities (Ferriter, 2010; Sauers & Richardson, 2015). As a relatively new practice, research is limited. Literature discussed in this chapter provides higher education viewpoints, as technology use was more liberal at that level, as well as some K-12 administrator perspectives. In order to ascertain whether school leaders utilizing technology to reach parents and students

increases school connectedness, more research must be completed. Researching high school

students' perspectives of this method would validate the findings and provide valuable feedback.

School Connectedness

School connectedness has been defined as "the belief by students that adults and peers in

the school care about their learning as well as about them as individuals" (CDC, 2009, p. 3).

Multiple studies illustrate that this positive connection to school contributes to a student's

psychological well-being. Libbey (2004) found that students who feel that connection to school

tend to perform better than those who do not. The concept of school connectedness is a social

support that heightens a student's well-being (Libbey, 2004). Furthermore, students who

reported feeling more connected to school had fewer behavior issues than their less-connected

classmates (Loukas, Suzuki, & Horton, 2006). The school connection and enhanced well-being

have positively affected student success.

Theoretical Framework

Self-Determination Theory

Self-determination theory (SDT) examines human growth tendencies and the

psychological needs that must be met in order to fully develop self-motivation as well as social

competence and personal well-being. Self-determination theory encompasses three

psychological needs that are essential for positive development including: competence,

relatedness, and autonomy (Ryan & Deci, 2000). Competence refers to the ability to complete a

task efficiently and successfully while autonomy refers to an individual's self- directed freedom

and ability to self-govern. Relatedness, the primary psychological need in influencing school

connectedness, contributes to feelings of belonging and the belief that the individual is cared

about at school (CDC, 2009; Ryan & Deci, 2000). Preliminary research on SDT began in the

1970s; however, the first comprehensive statement regarding SDT, developed by Deci and Ryan, originated in the mid-1980s (Deci & Ryan, 1985). Yet research on SDT did not expand until the 2000s. As educational, athletic and healthcare research has come to the forefront, research applying SDT has widened (Deci & Ryan, 2008). Scholars have come to realize that the psychological needs that SDT addresses apply to many areas, especially education and the needs of students. Since these needs can be nurtured or hindered by the individual's environment, school environment plays a major role in development (Ryan & Deci, 2000). In relation to school connectedness, relatedness is the instrument that amplifies the sense of well-being. For the purpose of this paper, well-being is defined as positive psychological or social adjustment (Chu, Saucier, & Hafner, 2010). Students relate, or connect, to each other within a school environment. This connection is established when a student believes that he or she has the support of others in the school setting. Consequently, relatedness is the belief in faculty and peers in the school surroundings (CDC, 2009). Relatedness can foster a sense of belonging or a sense of community which in turn can increase feelings of school connectedness. According to research based on SDT, relatedness is connected to a strengthened feeling of psychological well-being, academic performance, student engagement and positive social behavior (Gillison, Standage, Skevington, 2008). Additionally, research shows that children who rate high in relatedness not only display higher levels of engagement, but they also progress more over time (Furrer & Skinner, 2003). Both higher levels of engagement and achievement lead to a greater sense of well-being. Therefore, relatedness is a crucial dynamic of school connectedness.

Review of Relevant Literature

Components of School Connectedness

Three components of school connectedness have been identified in the literature. They include the individual, environment, and school culture. Each of these components contribute to the concept of school connectedness.

Individual. The first component of school connectedness is the individual. Since people connect with people before they will connect with a place or idea, the individual is essential in school connectedness. Relationships formed between teachers and students are one of the most important factors in school connectedness. Furrer and Skinner (2003) established that the strongest need for relatedness in school was relatedness to teachers. Furthermore, relationships formed with other school personnel are also important. Counselors, administrators, secretaries, custodians and cafeteria personnel all contribute to that sense of belonging and connectedness (Blum, 2005). These relationships align with the concept of relatedness and feeling supported in the school environment. Kuh (2003) found that not only do the relationships between school staff and students matter, but the nature and frequency of the contact matters as well. Continued contact strengthened those connections. Similarly, a 2010 study confirmed that the meaningful relationships built in a school environment were necessary in order to feel a sense of belonging. The sense of belonging, as well as the perceived support, contributed to students' well-being and feelings of relatedness (Chiessi, Cicognani, & Sonn, 2010). A longitudinal study by Jose, Ryan and Pryor (2012) found that family and school connectedness were stronger influences on well-being than peer or community relationships. In fact, a vital piece to a teenager's complete sense of connectedness and well-being is having an adult that he knows cares about him and whom he can trust (Jose, Ryan, & Pryor, 2012). Furthermore, teacher support and having friends were

specifically noted as factors in school connectedness. Being able to have genuine conversations with teachers and talk to teachers about friends ranked highly with students. Knowing that friends were at school to support them as well as have daily interactions was also important (Libbey, 2004). Moreover, good quality peer relationships help to generate a sense of community at and belonging to the school which enhances a connection to the school (Baker, 1998). Key relationships for students impact the individual component of school connectedness.

      Environment. Environment is a vital piece of school connectedness. The school environment is a place for students to develop both academically and socially. The more positive an environment is, the greater sense of school connectedness it will foster. One piece of school environment is school climate. A positive school climate is also essential for school connectedness, and as school climate and connectedness are interrelated, the greater the sense of school connectedness there is, the more positive the school climate (Blum, 2005). In addition to school climate, engagement is also a prevalent factor in the school environment. Schools identified as engaging with high levels of school connectedness followed four principles: high academic standards, personalized learning, relevant curriculum such as technology use, and flexibility in instruction such as collaborative learning (Blum, 2005). While it may appear the opposite, students prefer high academic standards and a demanding curriculum. They both want and need a curriculum that provides critical thinking and rigor (Dockter, Haug, & Lewis, 2010). Furthermore, much research has been done regarding the use of technology to increase student engagement and findings concur that technology in the classroom does indeed increase student engagement. A study that allowed students to work through online tutorials not only resulted in students perceiving a greater level of proficiency, but the instructor also had more time to give more in-depth feedback to students (Andersson, Reimers, & Maxwell, 2013). A similar study

found that students preferred to learn using internet classes, sources, and homework. In addition, students surveyed enjoyed using research and computer skills to complete their assignments. The use of the internet to research, evaluate the credibility of web sites, and complete homework appeared to cultivate greater student engagement (Strom, Strom, Wing, & Beckhart, 2009). Increased engagement as a result of the use of technology both in and outside of the classroom was a trend in several studies. Technology was not the only factor to increase engagement, however. Similarly, Kuh's (2003) conclusions corroborate that active and collaborative learning increase engagement. Collaborative learning also gives students a chance to create a sense of community and belonging. Meanwhile, engagement is not the only element of school climate. Parent and home involvement contribute to school climate as well. Communication, recruiting parent volunteers, and initiation of community collaboration also influence a school climate (Blum, 2005). Abundant communication and community involvement assist in producing a positive school climate.

School Culture. Simply put, school culture meets both academic and social needs of students. While academics are always a top priority for schools, students also value the social aspect such as sports, clubs, and extracurricular activities in general (Blum, 2005). These activities provide another opportunity for students to feel a sense of belonging as well as experience feelings of relatedness. Knowing that teammates and friends support and care about them forms that school connection. Administrators have a significant impact on school culture by meeting affective needs as well as academic needs by providing both social and emotional learning possibilities (Blum, 2005). These opportunities often appeal to students who may otherwise not feel a connection to school. Providing a social element offers more students a

sense of belonging. Students who participated in extracurricular activities felt more connected to school (Libbey, 2004).

Additionally, a strong school culture can invoke a sense of community which also imparts a sense of belonging and relatedness. A sense of community evolves when students work together for a cause, support a competition, or communicate beyond the classroom. A study gauging adolescents' need for a sense of community determined several outcomes. One important conclusion is that adolescents need to build meaningful relationships as well as feel like they have influence in their community (Pretty, Conroy, Dugay, Fowler & Williams, 1996). Likewise, they need to feel like they are a valued member of that community (Chiessi, Cicognani, & Sonn, 2010; Pretty, Conroy, Dugay, Fowler & Williams, 1996). Perceiving a sense of community is akin to feeling a sense of belonging, and both contribute to a person's well-being. School activities and athletics provide social interaction as well as a sense of belonging to a supportive group. Moreover, adolescents who perceived a support system showed a positive correlation with the sense of community (Chiessi, Cicognani, & Sonn, 2010; Pretty, Conroy, Dugay, Fowler & Williams, 1996). Similarly, in 2008, Dawson studied the relationship between a person's position in a social network and their perceived sense of community. He found that there is indeed a relationship between sense of community and a person's position in a formed social network. The type of support and information an individual required would depend heavily on the individual's pre-existing social network, The degree of those needs would dictate that individual's sense of community (Dawson, 2008). School culture supports the social aspect of school, and subsequently, a sense of community. Involvement in school-sponsored groups and activities influences the degree of this sense.

Individual
- Relationships with staff and peers
- Quality of relationships and frequency of contact

Environment
- Positive climate = school connectedness
- Engagement

Culture
- Academics
- Social (sense of community)
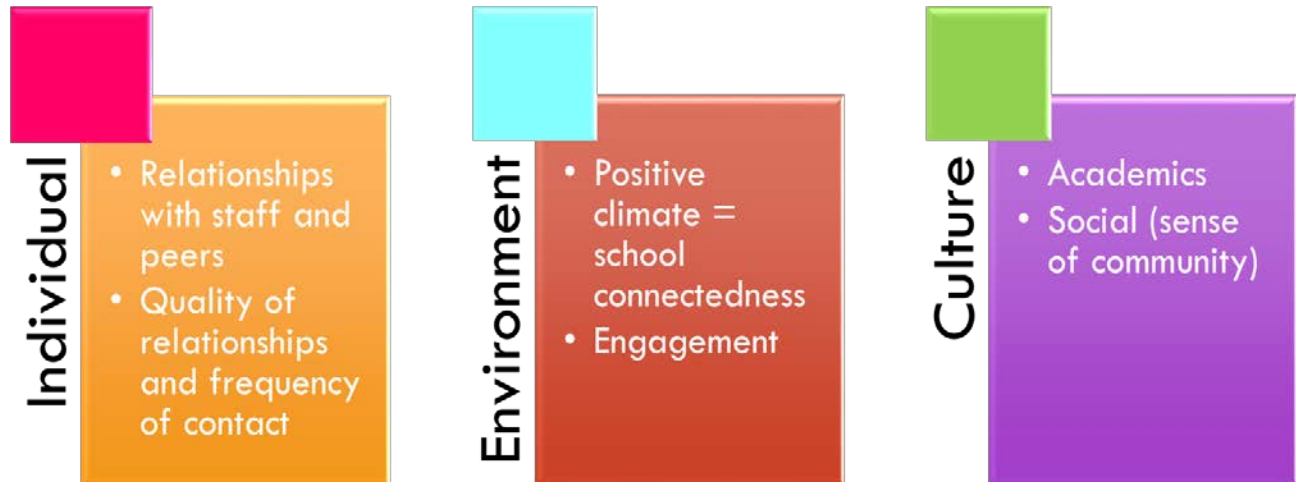
Figure 2

Factors that Affect School Connectedness

Effect of Technology on School Connectedness

The Digital Age has dramatically changed communication across the globe. The ease of accessibility has increased with email, texting, video communications, online discussion venues, and social media. Many colleges and universities embraced this technology to reach a wider range of students through distance and online learning. Laird and Kuh (2005) established:

> The relative strength of the positive relationships between academic uses of information technology and engagement, particularly academic challenge, student-faculty interaction, and active and collaborative learning, suggest that engagement in one area often goes hand-in-hand with engagement in other areas. Both technology and non-technology collaborative learning items factor together and produce a reliable scale. This indicates that engagement in practices such as active and collaborative learning may well be best measured by including technology and non-technology related items. (p. 230)

Based on the research, technology has been used as a vehicle to increase school connectedness. The elements of engagement, student-teacher interactions, academic rigor, and collaborative learning all contribute to fostering this connection. Multiple studies were performed at the university level to measure student engagement and sense of community in online classes. Researchers discovered that a sense of community could and did exist in online environments (Rovai, 2001; Rovai & Baker, 2005; Wighting, 2006; Young & Bruce, 2011). Thus, online interactions have the ability to construct a sense of community or sense of belonging.

While several studies have been done at the university level, very little research exists at the K-12 level. One study was performed at the middle school level. When technology and online discussions were introduced into several middle school English classrooms, the students created their own sense of community. Students used computers to discuss literature they were reading. They were able to post their thoughts and other students were able to respond. Researchers found that the students thrived with this method. Using technology, students were able to share their thoughts without interruptions, use colors, fonts and emoticons to decode and express themselves as well as respond to classmates at their own convenience (Grisham & Wolsey, 2006). Moreover, the students were able to take time and respond thoughtfully to their classmates. Since students were able to customize their learning experience, they were able to take time to construct meaning and process thoughts. Additionally, the online community gave students a sense of home, so they were able to respond authentically in a comfortable setting where they felt like they belonged (Grisham & Wolsey, 2006). One observation was that the teacher was a crucial part of the online discussions in order to increase the rigor and critical thought process in the student posts (Grisham & Wolsey, 2006). Technology use in this format contributed to school connectedness by providing a sense of belonging and community as well as

delivering opportunities for rigor and critical thinking. Another study found that students of the digital age think, learn and share information in a manner much different from the past (Dresang & McClelland, 1999). Additional examinations indicate that they are emotionally and intellectually open as well as inclusive and accepting of diversity. Digital learning has encouraged liberally expressing opinions, collaboration, and research in both real and virtual classrooms (Dresang & McClelland, 1999). Digital learning aligns with aspects of school connectedness such as collaboration, inclusion, and acceptance.

Improving School Connectedness Using Social Media

As social media usage grows, educators have begun to explore the possibilities of using it as a classroom tool. Not only does it allow instructors to communicate quickly and effectively with students, it also allows students to communicate with each other, thus forming a class community. One social media site that some educators have embraced is Facebook. Instructors at various universities have utilized the site to create class pages. Student response was positive in regards to using Facebook as a class tool. A sense of classroom community was developed and allowed students the opportunity of social learning and a feeling of connectedness (Barczyk & Duncan, 2013). Another aspect that students favored was that instructors responded quickly to student questions and everyone could see the answer (Miron & Ravid, 2015). Students also liked the fact that they could communicate with classmates for both class and non-class reasons. Some students even took initiative and created student-only groups for the purpose of collaborative learning of class material and group work (Miron & Ravid, 2015). Furthermore, Barczyk and Duncan (2013) found that utilizing a tool like Facebook to enhance classroom activities impacts students' learning and retention as well as built connectedness. Results showed that students over the age of 25 displayed the greatest perception of learning and retention as well as

connectedness. The opportunity to interact virtually with other students outside of the classroom

was considered a factor in the results (Barczyk & Duncan, 2013).

Another study determined that the use of a blog as a social media vehicle increased

achievement as well as enhanced the learning environment. The level of engagement was higher

than that of a traditional classroom and the students who published their writings to the blog not

only published a larger number of articles, they also received higher grades (Novakovich &

Long, 2013). Students in the blogging group expanded their boundaries significantly while

producing genuine and authentic work (Novakovich & Long, 2013). Furthermore, students who

used the social media site, Twitter, as part of their college course also showed both higher levels

of engagement and connectedness as well as higher grades than the control group. The study by

Evans evaluated the relationship between Twitter usage and student learning experience. A

positive correlation was revealed between Twitter usage and the ability to communicate quickly

with both classmates and the tutor (Evans, 2014).   A similar study examined the use of Twitter

for the class and grades and engagement (Junco, Elavsky, & Heiberger, 2013). Results showed

that the students who used Twitter throughout the course earned significantly higher grades than

the control group who did not use Twitter. Additionally, the Twitter group also had a higher

engagement score (Junco, Elavsky, & Heiberger, 2013). The integration and use of social media

into education has netted positive results that have included higher grades and better learning

experiences. Other research verifies that the sense of community and connectedness increases

with the use of social media. Lu and Churchill (2012) concluded that social media interaction

afforded faster, more efficient collaboration by allowing for sharing of digital resources and

quick decision-making. Additionally, 40.34% of student comments on the social networking site

reflected their sense of belonging and being a part of the learning community (Lu & Churchill,

2012). It is evident that the use of social media can be used to increase, or create, a sense of community and consequently, a sense of belonging to further feelings of school connectedness. Colleges and universities have utilized this tool and subsequently studied the results to determine its effectiveness.

Using Social Media to Connect at the K-12 Level

The use of social media at the university level was embraced fairly quickly; however, K – 12 educators have not been as swift to incorporate social media. The adoption of social media has been slow and most school districts initially banned social media in schools. Nevertheless, as use of social media exploded, school leaders realized the potential of instant communication with district stakeholders. Both teachers and administrators were able to share school events and classroom activities while the information was still relevant. While a classroom Twitter account is no longer unusual, the concept of school leaders cultivating school connectedness using social media is in its initial stages.

To be sure, research on K – 12 academic leaders using social media to connect with students is sparse. Richardson, Bathon, Flora and Lewis (2012) reviewed research conducted at the K-12 level regarding school leadership, technology and social media and found this area to be lacking. Specific areas of limited research included "qualitative examples of successful implementations of technology by school administrations" as well as "limited availability of literature on school technology leadership" (p. 144). While school districts around the nation have slowly embraced the use of social media, most of the usage has been to disseminate information to parents and students. Administrators and school leaders have found social media to be a quick and easy means of sharing school or district information. Additionally, communication of ideas and information to peers as well as the ability to receive fast feedback

have been noted as frequent uses by administrators (Sauers & Richardson, 2015). As administrators and school leaders have transitioned to a more abundant use of social media, several have discovered a multitude of benefits.

One example is former principal Eric Sheninger in New Jersey. Sheninger enthusiastically incorporated the use of social media to build connections with both students and parents. He not only shared school events, he also interacted with the community on social media. One important benefit Sheninger discovered was the ability to communicate with students via Twitter and Facebook. He appreciated the student perspectives and community conversations, which students had not been a part of previously (Ferriter, 2010). Sheninger discovered that social media was a method to acquire student feedback as well as form connections with students.

Other administrators agree with Sheninger's observations. Their use of social media to connect with stakeholders has proven to be rewarding. Several principals in a study by Cox and McLeod (2013) stated that the feeling of connectedness was strengthened by the use of social media. Traditional forms of communication, such as newsletters, did not contribute to school connectedness in the same way (Cox & McLeod, 2013).

A 2012 study by former principal Daniel Dean Cox touted several advantages of school leaders using social media. Interviews in this multiple case qualitative study had school administrators sharing the sentiment that social media allowed them to not only share ideas with other administrators, but also the opportunity to follow and communicate with educational leaders around the world. One administrator noted that without social media, the ability to connect to educators all over the world just would not have been possible (Cox, 2012, p. 94). The capability to experience these connections has helped to improve education around the globe.

Moreover, connections have been formed with community members. The most obvious connections formed are with parents. One administrator in Cox's study observed that using social media to form that connection tends to humanize school leaders in parents' eyes. He used the example of tweeting about his favorite NFL team. When the tweet posted, parents replied to him and because of the casual "conversation" barriers were broken down. Parents viewed him as a regular person (Cox, 2012, p. 97). Ten of the twelve principals in Cox's study noted that their transition to social media communication has resulted in more two-way communications versus one-way such as a newsletter. The ability to have more frequent two-way conversations with more stake holders has strengthened the connection between administration and parents (Cox, 2012). Although administrators and school leaders viewed connections with parents and other educators as important, the connections formed with students were extremely valuable.

Several key reflections of administrators in Cox's study indicated that the connection with students was a variable that surprised and pleased them. One interviewee commented that many students don't see administrators as communicators. Once they realized he was on Twitter, students viewed him as more relevant and relatable (Cox, 2012, p. 95-6). Students are more likely to relate to someone that is active on their level. Another participant in Cox's study said he was able to connect with students by lending support where he could. As he observed students stressing about an upcoming exam, he tweeted back, "'Hang in there. You're gonna get this done'" (Cox, 2012, p. 97). The next day students let him know that his encouragement had really mattered to them (Cox, 2012). One last example is a superintendent who would tweet out to students that the next day was a special wardrobe day such as "Blue Shirt day" or "Ugly Sweater Day". This type of student-focused communication strengthened the bond between the superintendent and the students and contributed to a stronger district culture (Cox, 2012, p.138).

These student connections promote their sense of belonging, and using social media to connect allows school leaders greater opportunity to make these connections.

School leaders have discovered that the use of social media to communicate with stakeholders has not only allowed for fast and easy dissemination of important information, but also helped to create a sense of community.   The ability to have two-way, informal communication with both parents and students has increased the sense of community and belonging and consequently, the feelings of school connectedness (Figure 3). Those administrators who have taken the leap into social media all agree that using it as a form of communication is no longer optional; it is essential in order to stay relevant to stakeholders (Cox & McLeod, 2013; Ferriter, 2010; Richardson, Bathon, Flora, & Lewis, 2012). As parents, students, and community members increase their technology and social media usage, school leaders must be aware of this and act accordingly.

Finally, while there is some research about school leaders' use of technology, it is few and far between. If administrators and school leaders are using technology and social media to communicate, build a sense of community, and connect with parents and students, these instances are not in published literature. A search of related literature by McLeod and Richardson addressed this problem stating that there simply is not enough quality literature and research to draw accurate conclusions in regards to students and connectedness (McLeod & Richardson, 2011). Not only is research lacking, it is critical for school leaders to keep abreast of the constant changes. Eric Sheninger transformed his school communication model to social media and engaged more stakeholders than previous traditional methods had (Sheninger, 2015). Stakeholders want school leaders who not only care and connect with their children, but also prepare them for the future.

Summary

In summary, it has been determined that school connectedness is a critical piece of development. School connectedness assists in developing a sense of community and/or a sense of belonging which contributes to a student's well-being. Similarly, feelings of connectedness and belonging parallel with the psychological need for relatedness, or feeling a part of a group (Furrer & Skinner, 2003; Ryan & Deci, 2000). Three components contribute to developing school connectedness. The individual reflects on the relationships a student builds with school personnel and classmates (Blum, 2005). Environment examines the positive climate of the school and the level of engagement of students who attend there (Blum, 2005; Kuh, 2003). Culture meets the social and academic needs of students by providing social activities and groups that help develop a sense of community (Dawson, 2008).

The Digital Age has presented new ways for both students and school leaders to connect. As educational institutions embrace digital learning, students are offered new and additional ways to connect with classmates and instructors both in and out of the classroom. The wave of technology has swept through higher learning institutions, but K-12 schools have been slower to take the plunge (Laird & Kuh, 2005). A major piece of connecting with technology is the use of social media. Colleges and universities have integrated social media into classrooms and reported positive results with students connecting and developing a sense of community (Rovai, 2001; Rovai & Baker, 2005; Wighting, 2006; Young & Bruce, 2011). K-12 school leaders are slowly testing the waters of connecting to their communities via social media. While many school leaders are using social media solely to disseminate information, several have discovered the benefits of using social media to interact with stakeholders, namely parents and students. Those leaders who have successfully built a sense of community using social media report

genuine conversations and feedback from both parents and students (Cox, 2012; Cox & McLeod, 2013; Ferriter, 2010; Sheninger, 2015). The connectedness that administrators and school leaders have experienced has been more productive and authentic than the meetings and newsletters of the past.

Although there have been several studies examining school leaders using technology and/or social media to connect with stakeholders, there are important gaps in the literature (Cox & McLeod, 2013; Richardson, Bathon, Flora, & Lewis, 2012). Likewise, literature examining students' feelings of school connectedness as a result of progressive school leaders using technology and/or social media to connect and create a sense of community is virtually non-existent (McLeod & Richardson, 2011). School leaders using social media to connect with their communities feel as though they are making a connection with students, and it would be valuable to discover if they are correct in their assumptions. Consequently, it is necessary to conduct a study of perspectives of students who attend schools where technologically progressive school leaders reside in order to find out if school leaders' perceptions align with those of their students.

CHAPTER III: METHODOLOGY

The purpose of this study is to examine the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban school district. Furthermore, the study assesses the relationship between the feelings of those students who used social media to connect with school leaders and those same students' levels of engagement and achievement. School leaders and administrators, through the integration of social media into their communication strategies, discovered stronger connections to stakeholders as well as authentic, quality feedback from stakeholders (Cox, 2012; Cox & McLeod, 2013; Ferriter, 2010). As the use of social media grew, school leaders also realized that connections with students were being built. Research from Cox's 2012 study illustrated that administrators' social media communications not only reached parents, but also students (Cox, 2012). These connections increased students' feelings of school connectedness, or sense of belonging. Earlier research shows that feelings of school connectedness can lead to increased academic achievement as well as a students' well-being (Libbey, 2004; Ryan & Deci, 2000). Accordingly, the focus of this quantitative survey study is to determine if the students' interactions on social media with school leaders and administrators fostered feelings of school connectedness.

Research Design

A survey design allows researchers a numerical, or statistical, picture of trends, attitudes or opinions of specific population by researching a sample of that population. The researcher can then draw inferences from the sample (Creswell, 2014). Similarly, survey research allows researchers to test beliefs and behaviors (Mis, 2013). Survey questions are specifically designed

to determine the relationship between two variables.   The survey design of this cross-sectional study assessed the relationship between the use of social media by school leaders to communicate and students' feelings of school connectedness. In addition, the study examined the relationship between school leaders' social media interactions with students and those same students' engagement and achievement. For the purpose of this study the independent variable was school leaders' social media interactions with students, and the dependent variables were the student's feelings of school connectedness, engagement, and achievement. The controlled variables were the students' grade level and gender. This non-experimental study surveyed juniors and seniors in a Midwestern suburban high school during the 2016-2017 school year.

Research Question

What is the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban district? Additionally, are the social media interactions with school leaders related to those students' engagement and achievement? Finally, are there differences in male and female high school students' use of social media, feelings of connectedness, engagement and achievement?

Sub Questions

- What degree of school connectedness exists for students who interact with school leaders on social media?

- Is student achievement linked by social media interactions with school leaders?

- Is there evidence from the students' perspectives that school leaders' social media use to connect with the student population is related to student engagement?

- How do students perceive school leaders who use social media to communicate and connect with the student body?

Participants

Participants in this study were high school juniors and seniors from a Midwestern suburban high school. All participants attended the same high school in the district. Participants were asked to volunteer to take part in this study; however, several parameters had to be met in order to be included. Participants had to be comfortable using social media, and use it on a regular basis. Additionally, participants needed to have experiences communicating with school leaders, such as teachers, coaches, principals or the superintendent, over social media. It was important for participants to meet these requirements to collect data that was authentic and relevant. To gather reliable data, it was essential that participants were comfortable using social media and had communicated with school leaders on social media prior to the study. Authentic experiences provide accurate data (Creswell, 2013). Participants were included on a voluntary basis, however, the researcher used two of the survey questions to screen participants. Survey question 3 (demographics) indicated the potential participant's social media use. Survey question 4 (social media use) indicated the strength of a connection with a school leader over social media. If the prospective participant had not connected with a school leader over social media, or was not entirely comfortable with social media, the participant's data was not used in the study.

Although participants had to meet several qualifications, the sample was a random sample. An envelope containing a parent consent form and the survey attached to it was distributed to each high school junior and senior in the school in their homerooms. Both the survey and parent consent letter had a suggested return date. If the parent granted permission to participate in the

study, students were able to complete the survey at home, allowing them to complete it in a comfortable environment (Creswell, 2013). The students who did not respond to the survey by the closing date were not included. Once the student completed the survey, he or she returned the parent consent form/survey to the school and placed it in a strategically-located, clearly-labeled bright pink drop box. The projected timeline for distribution and return was one week.

While participants were utilized on a volunteer basis, criteria beyond social media comfort and communications with school leaders also was applied. Since participants were under the age of nineteen, parental permission had to be obtained in order for the student to participate. The school district provided a skeletal parent permission form that was tailored to the study and used to gain permission for this study (Appendix A). This permission form was attached to the survey and delivered to the students by their homeroom teachers. For this study, 963 surveys were distributed to students in paper format. The total number of surveys returned by the deadline was 74. Of the 74 student surveys returned, 66 surveys met the qualifications and were utilized. Forty-four of the participants were 12th graders and twenty-two of the participants were 11th graders. Forty of the participants were female while twenty-six were male (Table 1).

Table 1

Participant Demographics

	Male	Female
Juniors (11th Grade)	12	10
Seniors (12th Grade)	14	30

The district contains three traditional high schools and one alternative school. Only one of the traditional high schools was used in the study. The high school's enrollment in the fall of 2015 was 2, 213 in grades 9 – 12. In the 2015- 2016 school year, daily attendance was reported

at 92.6%. In addition, 31.5% of the school population was reported as low income, 39.3% of the students were involved in athletics, and the average composite ACT score was 19.5 (NDE, 2016).

Data Collection

Data was collected from a paper student survey. Surveys were distributed to all high school juniors and seniors in the school, allowing for a potential sample of 963. Ideally, this would have provided a larger sample which is advantageous in quantitative research (Creswell, 2014). Each student received an envelope from his or her homeroom teacher. The envelope contained the parent consent form with the student survey attached. To ensure consistency, brief instructions were included with the envelopes. Instructions gave a short explanation of the survey, the suggested return date, and instructions on the return process (Appendix B). Homeroom teachers were provided with a few extra envelopes in case one of his or her homeroom students lost his or her original envelope. If the parent granted permission to participate in the study, students were able to complete the survey at home, allowing them to complete it in a comfortable environment (Creswell, 2013). The students who did not respond to the survey by the closing date were not included. Once the student completed the survey, he or she returned the parent consent form/survey to the school and placed it in a strategically-located, clearly-labeled bright pink drop box at the security desk inside the front door of the school. The timeline for distribution and return was one week. Students were given a reminder by their homeroom teachers two days before the due date.

Questions for this survey were created by the researcher using a 5-point Likert scale (Appendix C). Survey questions were designed to examine the relationship between students'

feelings of school connectedness and interactions with school leaders on social media. Additional questions were designed to identify a possible relationship between social media interactions with school leaders and student engagement and achievement. Questions 1, 2, 3 and 4 collected the demographic data of gender, grade-level, Twitter and/or Facebook usage, and grade point average. Questions 4, 5, 8, 13, 14, and 15 assessed degrees of feelings of school connectedness. Question 16 was designed as a multiple choice question to evaluate participants' perspectives on school leaders' social media use to communicate with them. It was also devised to measure degrees of connectedness. Academic achievement was quantified by question 9 as well as 3 with the self-reported grade point average while degrees of engagement were determined by questions 6, 7, 10, 11, and 12. Questions were derived from past research of school connectedness as well as the use of social media in schools (Blum, 2005; Dockter, Haug, & Lewis, 2010; Lohmeier & Lee, 2011; Junco, Elavsky, & Heiberger, 2013; Kuh, 2003; Libbey, 2004).

Data Quality Measures

Expert Validity was established by an undergraduate psychology class's analysis of the survey from a student perspective. The class gave input on clarity and relevance of the questions. Feedback by an educational statistic expert from the district was also utilized (Creswell, 2013). Face Validity was established by having a high school principal in the district determine if questions were student-friendly as well as applicable to the study.

Data Analysis

Data was analyzed by several statistical tests. IBM SSPS Statistics v. 24 was utilized for descriptive statistics, Pearson's Correlational Coefficient, and Independent t-tests. Pearson's Correlational Coefficient was used to analyze various potential relationships. The researcher analyzed the relationship between feelings of school connectedness and students' use of social media to connect with school leaders. Additionally, Pearson's Correlational Coefficient was used to analyze the relationship between student engagement and student use of social media to connect with school leaders. Furthermore, the relationship between student achievement and student use of social media to connect with school leaders was analyzed for potential correlation. In addition, t-tests were utilized to break down the data by gender to determine if this variable was a predominant factor of feelings of school connectedness, engagement, and achievement.

Table 2

Variables

Variables	Variable Name	Operational Definition
Independent Variable	Social Media Interactions	Students interact with school leaders on social media
Dependent Variable	School Connectedness	Students feel that adults care about them as individuals as well as their learning.
Dependent Variable	Achievement	Students are successful in academics or activities.
Dependent Variable	Engagement	Students value school-related activities, academics, and school relationships (adult and peer).
Controlled Variable	Gender	Male or Female as self-reported on survey
Controlled Variable	Grade Level	Participants' grade level for the 2016-2017 school year

Ethical Considerations

Several steps were taken in this study to ensure high ethical standards and protection of the participants. Prior to the research process, the study was granted full Institutional Review Board (IRB) approval. Additionally, approval was granted by the Midwestern suburban school district's Department of Assessment, Research, and Evaluation to conduct research within the district with student participants. A parental permission letter (Appendix A) containing a brief description of the study was distributed to all potential participants' parents asking for permission to participate. Additionally, a copy of The Rights of Research Participants (Appendix D) was included for participants and their parents.

Furthermore, no names or identifying demographic data such as school building was used in the report. All data collected was stored in a locked file cabinet and destroyed at the end of the study. Data stored on a computer was password protected.

Summary

The methodology chapter focused on data collection and analysis, participant selection, and ethical considerations. Every effort was made to conduct an ethical study where participants felt comfortable. Participants were selected based on their use of social media to connect and build relationships with school leaders as well as their willingness to participate. All participants had parental permission. Data was coded for analysis in SSPS v. 24. Results were analyzed and discussed in Chapters 4 and 5.

CHAPTER IV: RESULTS

The purpose of this study was to examine the relationship between high school students'

feelings of school connectedness and their social media interactions with school leaders in a

Midwestern suburban school district. Additionally, data was examined to ascertain if social

media interactions with school leaders related to student engagement and achievement. Data was

collected from one high school in a Midwestern suburban school district using a paper survey

distributed by homeroom teachers. Seventy-four surveys were submitted from the 963

distributed. Sixty-six of the surveys met the parameters of usability and were utilized in data

analysis. Participants included 44 12th graders and 22 11th graders. Forty of the participants were

female while 26 were male. Eleven of the items on the survey were based on a 5 point Likert

scale with 0 labeled as Does Not Apply to Me, 1 as Strongly Disagree, 2 as Disagree, 3 as Agree

and 4 as Strongly Agree. Questions from these 11 items answered with a zero were dropped

from analysis. Similarly, two questions regarding GPA and activity participation were given

separate scales and those particular scales are addressed in the relative sections. Some items were

grouped together for analysis if the items were measuring similar areas. Data was analyzed using

SSPS v. 24.

Questions 4 through 15 were run with Pearson's Correlation Coefficient. Table 3 below

illustrates the results of this test and is referred to frequently in this chapter. All questions that

displayed a significant correlation are starred in the table; however, significant correlations that

did not directly relate to the research questions were not discussed. These correlations may be

used for future research and discussion. Significant correlations that relate directly to the

research questions are discussed in this chapter.

Table 3

Student Reports of Twitter and Facebook Interactions with School Leaders Variables: Correlations

Variables	4	5	6	7	8	9	10	11	12	13	14	15
4. Read/Post w/school leaders	1											
5. Twitter/FB feel belonging	.680**	1										
6. Activity participation	0.262	0.148	1									
7. Activities promoted	.367**	.543**	.367**	1								
8. Activity Recognition	0.250	.553**	0.111	.637**	1							
9. Academic recognition	.462**	.531**	0.281	.527**	.809**	1						
10. Activity information	.594**	.509**	0.258	.467**	.513**	.620**	1					
11. Class information	.427**	0.283	0.138	0.188	.456**	.530**	.710**	1				
12. Connect classmates	0.056	-0.004	0.251	0.200	.292*	.327*	0.223	.377**	1			
13. School leader access	.464**	0.223	.311*	.354*	0.149	.314*	.503**	.622**	.369**	1		
14. More communication	.700**	.564**	0.225	.390**	.426**	.565**	.502**	.398**	0.189	.571**	1	
15. School leaders care about me	0.160	.377**	0.202	0.167	0.169	.375**	0.085	-0.038	-0.002	-0.038	.341*	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Likewise, Table 4 displays descriptive statistics of questions 4 through 15. The means of many of the questions are discussed in Chapter 4, but Table 4 provides an overview where means of each survey question are easily compared.

Table 4

Student Reports of Twitter and Facebook Interactions with School Leaders Variables: Descriptive Statistics (N=66)

	Mean	Std. Deviation	N
4. Read/Post w/school leaders	2.67	0.852	57
5. Twitter/FB feel belonging	2.76	0.790	51
6. Activity participation	1.47	0.696	53
7. Activities promoted	3.22	0.769	54
8. Activity Recognition	3.04	0.868	54
9. Academic recognition	2.75	0.821	55
10. Activity information	2.81	0.915	57
11. Class information	2.26	0.782	54
12. Connect classmates	3.10	0.736	59
13. School leader access	2.70	0.822	53
14. More communication	2.47	0.775	53
15. School leaders care about me	3.18	0.646	61

School Connectedness

School connectedness, based on students' use of social media to communicate with school leaders, was the main focus of this study. In order to determine if there was a connection as well as the strength of that connection, descriptive statistics were utilized as well as Pearson's Correlation Coefficient. Data items analyzed included survey questions 4, 5, 13, 14, and 15. Item 4, *when on Twitter or Facebook, I read school leaders (teachers, principals, coaches, superintendent) posts and/or post comments to school leaders*, was one of the primary indicators of school connectedness via social media. This item recorded a mean of 2.67 with a standard deviation of .852. Likewise, 10.5 percent of participants strongly agreed, 59.6 percent agreed

while 15.8 percent disagreed and 14 percent strongly disagreed with the statement. The solid

agreement percentage indicated that students have made a connection with school leaders via

Twitter or Facebook. Figure 3 illustrated these results.
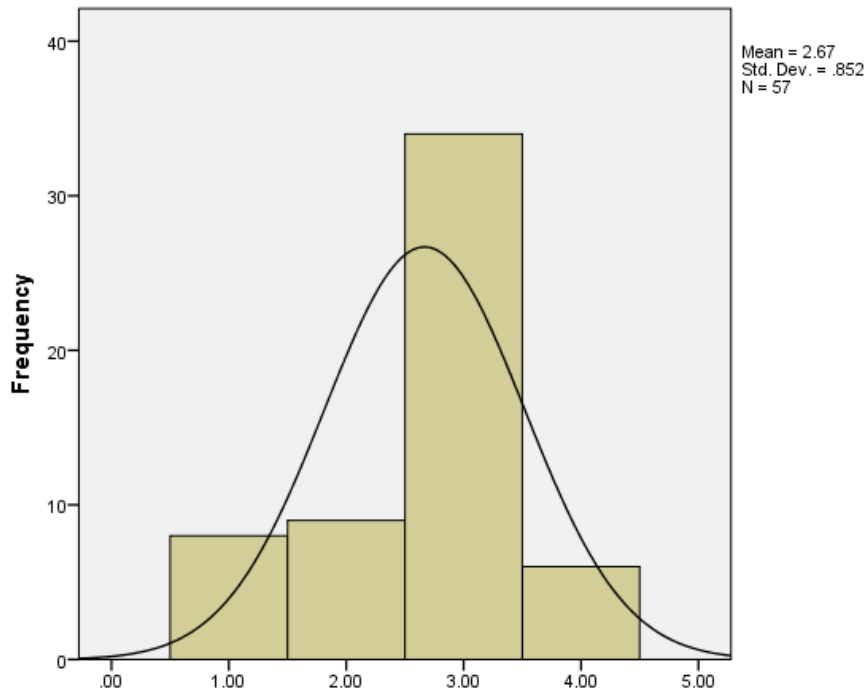
Students Read and Post with School Leaders

Figure 3

Distribution of Responses from Students Read and Post with School Leaders on

Twitter/Facebook

The principal indicator for school connectedness via social media was item 5,

communicating (reading and/or posting) with school leaders on Twitter or Facebook makes me

feel like I belong at school. Item 5 displayed a mean of 2.76 with a standard deviation of .79.

Correspondingly, 11.8 percent of participants strongly agreed, 62.7 percent agreed while 15.7

percent disagreed and 9.8 percent strongly disagreed with the statement. The combined *Strongly*

Agree and *Agree* categories equal 74.5 percent, which suggests that those students who use

Twitter or Facebook to communicate with school leaders feel like they belong at school. The

results of Item 5 are illustrated in Figure 5 below.
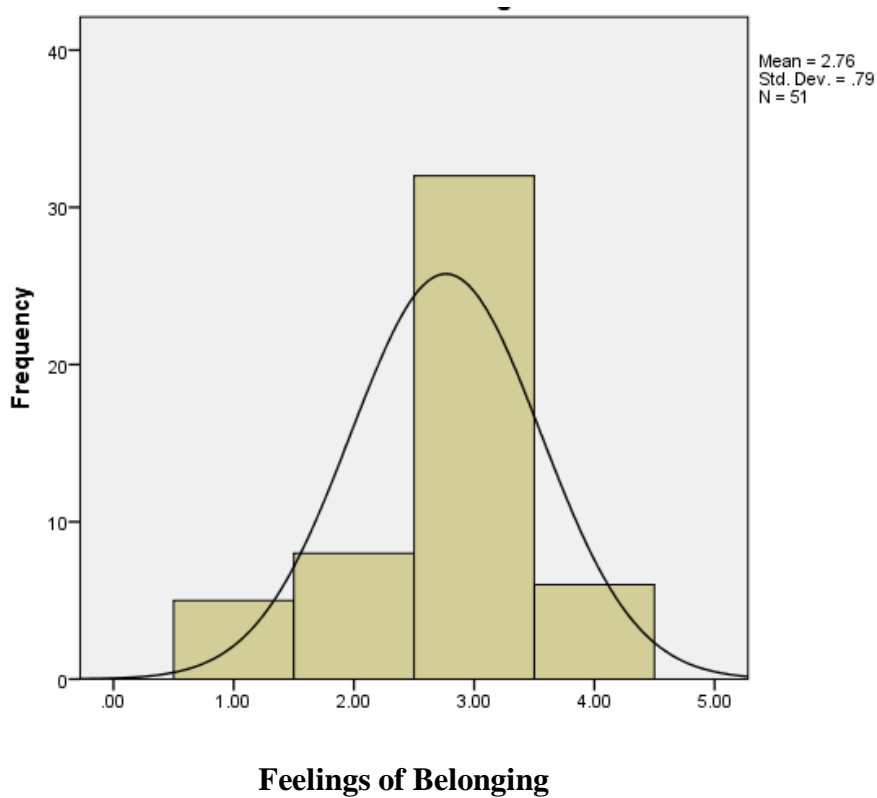

Feelings of Belonging

Figure 4

Distribution of Responses of Communicating with School Leaders on Twitter/Facebook Makes

Me Feel Like I Belong at School

Accordingly, one of the most substantial correlations of the study is that of items 4 and 5.

The correlation between reading/posting with school leaders (4) and feelings of belonging (5)

was found to be statistically significant, $r(48)= .680, p < .01$. This suggests that there is indeed a relationship between school leaders using social media to communicate with students and students' feelings of school connectedness. Furthermore, the strong positive correlation indicates the strength of that relationship. Figure 5 displays the correlation.
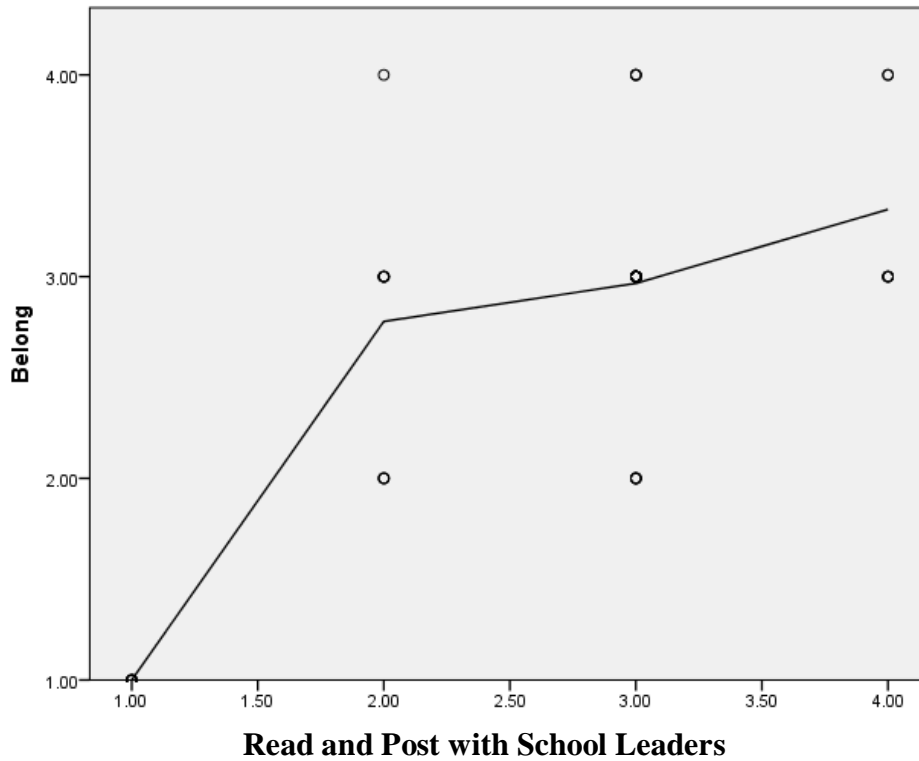

Figure 5

Correlation of Use of Twitter/Facebook to Communicate with School Leaders and School Connectedness

Item 13 was also used as a measurement for school connectedness. *School leaders (teachers, principals, coaches, superintendent) are more accessible because of Twitter and/or Facebook* presented a mean of 2.70 and a standard deviation of .822. Distributions included 13.2 percent of participants strongly agreed, 52.8 percent agreed while 24.5 percent disagreed and 9.4 percent strongly disagreed with the statement. Generally, students felt positively that school

leaders were more accessible because they were reachable on Twitter or Facebook. Figure 6

illustrates these results.

Mean = 2.70
Std. Dev. = .822
N = 53
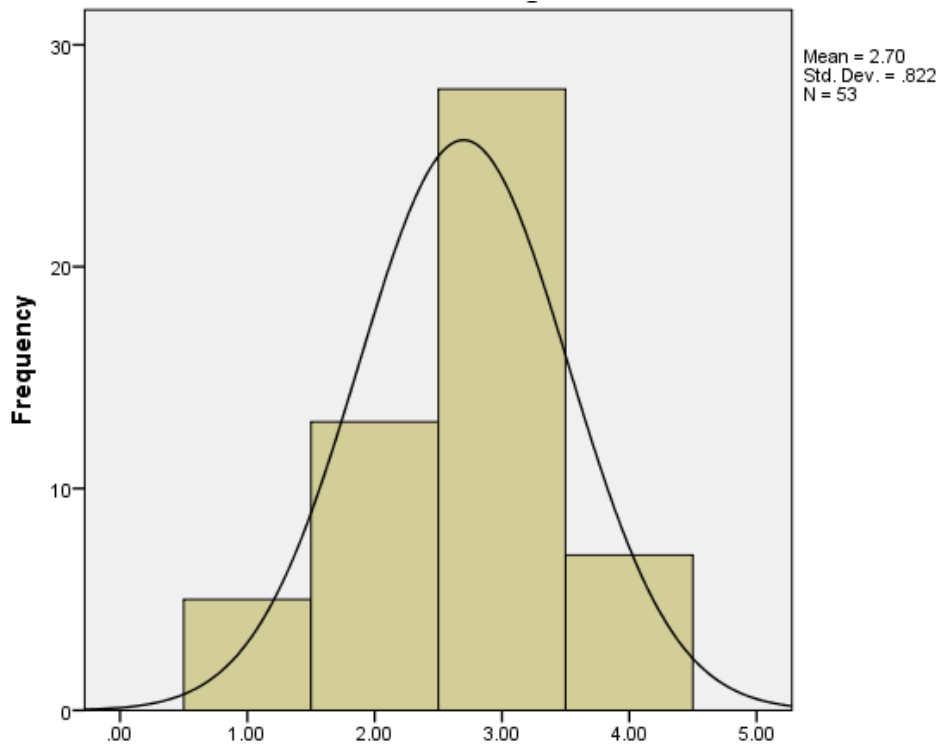
School Leader Accessibility on Twitter/Facebook

Figure 6

Distribution of Responses for School Leaders Accessibility on Twitter/Facebook

Another item used to analyze school connectedness was Item 14. Item 14, *I communicate*

with school leaders (teachers, principals, coaches, superintendent) more often because of social

media, presented a mean of 2.47 and a standard deviation of .775. Similarly, 5.7 percent of

participants strongly agreed, 47.2 percent agreed while 35.8 percent disagreed and 11.3 percent

strongly disagreed with the statement. While the positive responses were slightly greater than

the negative responses, the responses were distributed almost equally suggesting per this item

that communication with school leaders may only be slightly greater because of social media.

Figure 7 illustrates these results.

Communicate More Often with School Leaders
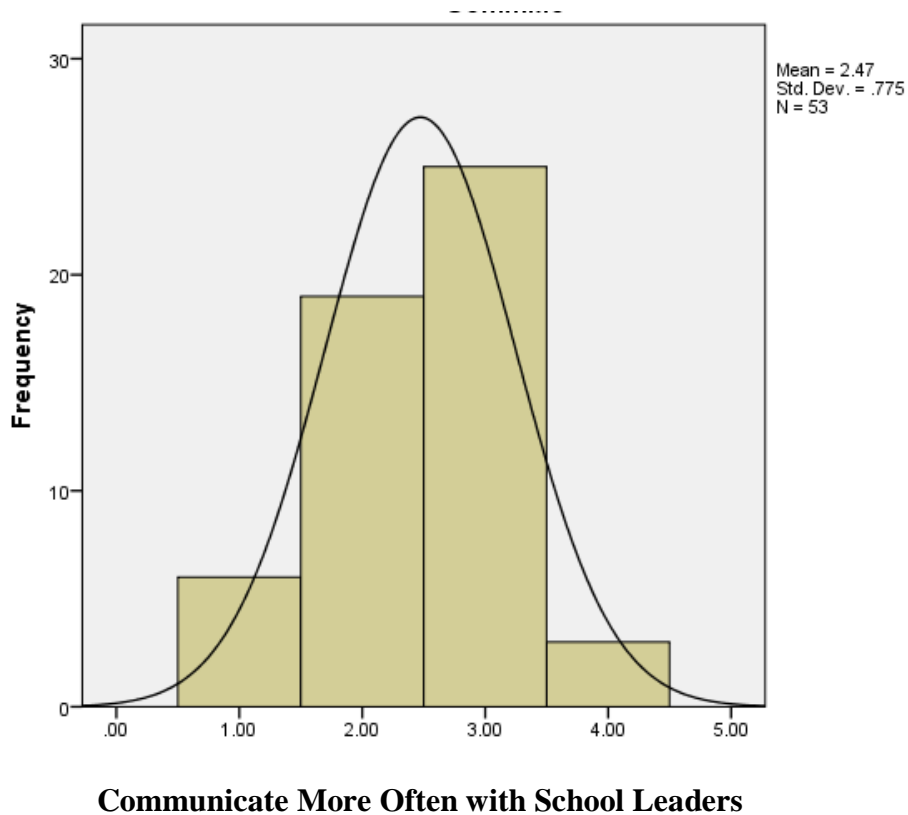
Figure 7

Distribution of Responses for Communicating with School Leaders More Often on

Twitter/Facebook

Item 15 was used as well in analysis of school connectedness. Item 15, *I believe that*

school leaders (teachers, principals, coaches, superintendent) care about me as a person,

recorded a mean of 3.18 with a standard deviation of .646. Likewise, 27.9 percent of participants

strongly agreed, 65.6 percent agreed while 3.3 percent disagreed and 3.3 percent also strongly

disagreed with the statement. The enormous positive response to this item denoted that students

in the building felt cared for by school leaders, which is one of the tenets of school

connectedness. Figure 8 displays the results for Item 15.

School Leaders Care About Me
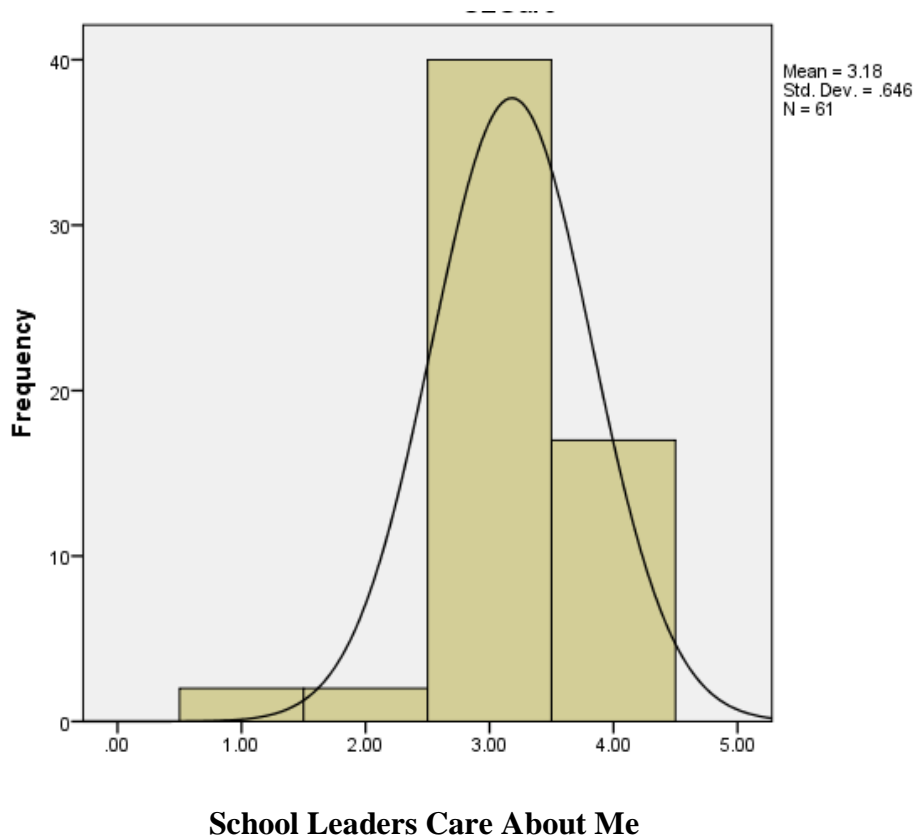
Figure 8

Distribution of Responses for School Leaders Care About Me

Other notable correlations were also established. The correlation between

reading/posting with school leaders (4) and communicating more with school leaders (14) was

found to be statistically significant, *r(50)= .700, p < .01*. This indicated a strong positive

correlation between communicating more often with school leaders and school leaders being on

Twitter and Facebook, meaning that the social media mediums allowed students to communicate

more frequently with school leaders. Correspondingly, the sum of items 4 and 5 correlated with

item 14 also presented a positive correlation. The correlation between the sum of

reading/posting with school leaders (4) and feelings of belonging (5) and communicating more

with school leaders (14) was found to be statistically significant, *r(48)= .568, p < .01.* This

suggests that the students' ability to communicate with school leaders more often via Twitter and

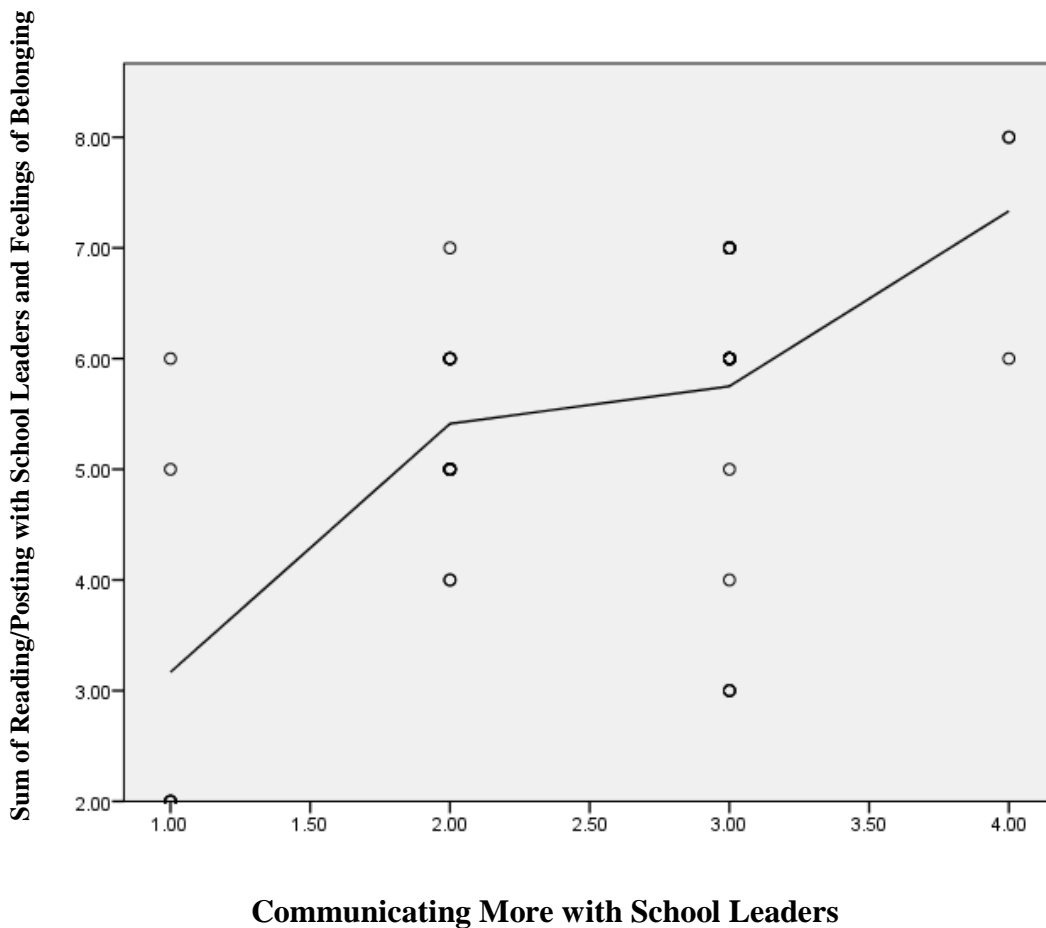Facebook may contribute to school connectedness. This is illustrated in Figure 9 below.

Communicating More with School Leaders

Figure 9

Correlation of Sum of Reading/Posting with School Leaders and Feelings of Belonging with

Communicating More with School Leaders

Another correlation analyzed was the sum of items 4 and 5 and the sum of items 13 and 14. This looked at the use of Twitter/Facebook to communicate with school leaders, feelings of belonging, school leader accessibility on Twitter/Facebook, and students communicating more with school leaders because of Twitter/Facebook, or school connectedness and the ability to communicate more easily and frequently. The correlation between the sum of reading/posting with school leaders (4) combined with feelings of belonging (5) and school leader accessibility on Twitter/Facebook (13) combined with communicating more with school leaders (14) was found to be statistically significant, $r(51) = .416, p < .01$. The results indicate a relationship between frequent communications with accessible school leaders via Twitter/Facebook and school connectedness. This statistically significant correlation provides evidence that students communicating with school leaders via Twitter/Facebook is related to feelings of school connectedness. This is illustrated in Figure 10 below.

Sum of Reading/Posting with School Leaders & Feelings of Belonging
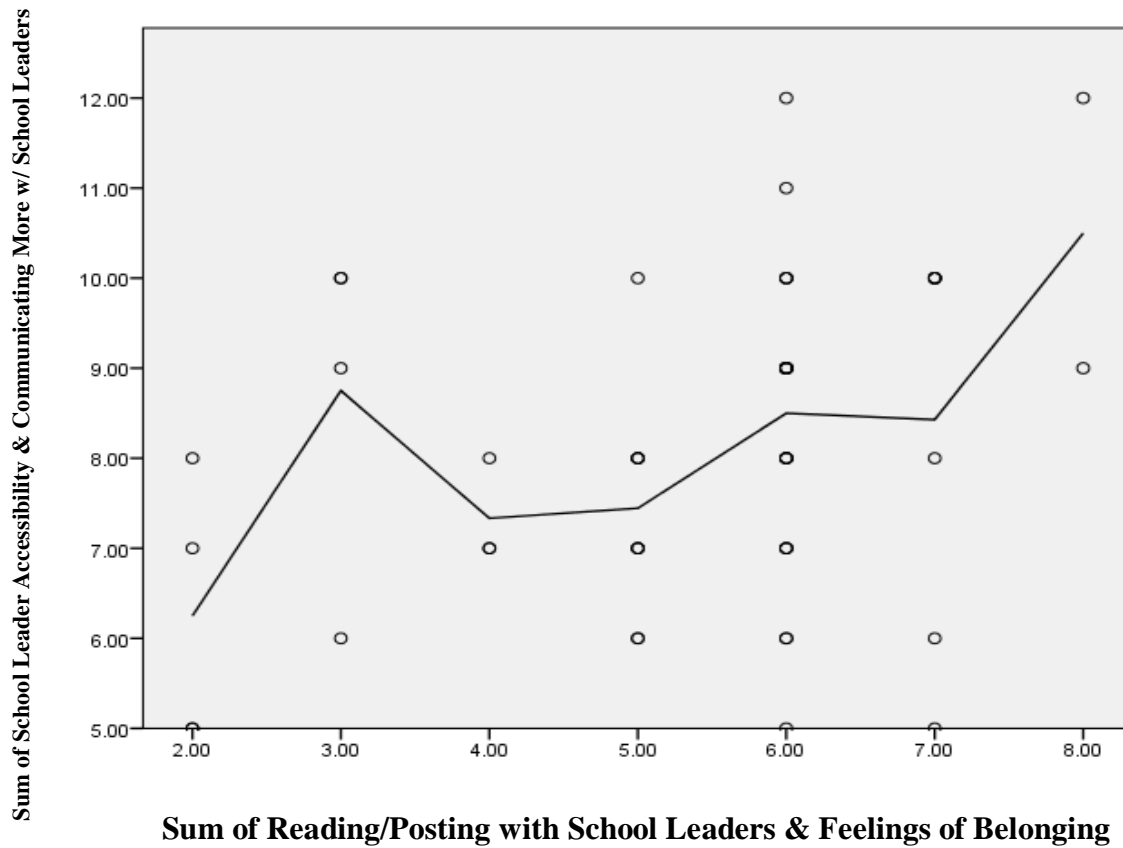
Figure 10

Correlation of the Sum of School Leader Accessibility & Communicating More with School

Leaders and the Sum of Reading/Posting with School Leaders & Feelings of Belonging

Achievement

Student achievement, for the purpose of this study, was defined as student Grade Point

Averages as well as achievements and recognition in activities. When school leaders recognized

student achievements on Twitter or Facebook, students reacted. Data items analyzed included a

self-reported Grade Point Average (GPA) range and responses from survey questions 8 and 9.

Responses for the self-reported GPA are displayed in Table 5 below. The self-reported GPA was

based on a scale and coded accordingly. The scale was recorded as such: 4 = 4.0+, 3 = 3.5 –

3.99, 2 = 3.0-3.49, 1 = 2.5 – 2.99, and 0 = Below 2.5. Zeros were not excluded on this item as

they held value. All 66 participants reported a GPA.

Table 5

Self-reported GPA Frequencies

GPA	Frequency	Percent
Less than 2.5	4	6.1
2.5 - 2.99	11	16.7
3.0-3.49	19	28.8
3.5 – 3.99	23	34.8
4.0 or above	9	13.6
Total	66	100

The mean GPA range was 2.33 with a standard deviation of 1.10. The heaviest

distribution of GPA's was in the "3" category with 23 participants reporting a 3.5 – 3.99.

Comparably, 83.3% of the participants had a GPA of 3.0 or above signifying that the participant

pool consisted of high achievers. Figure 11 displays the distribution of participant GPAs.
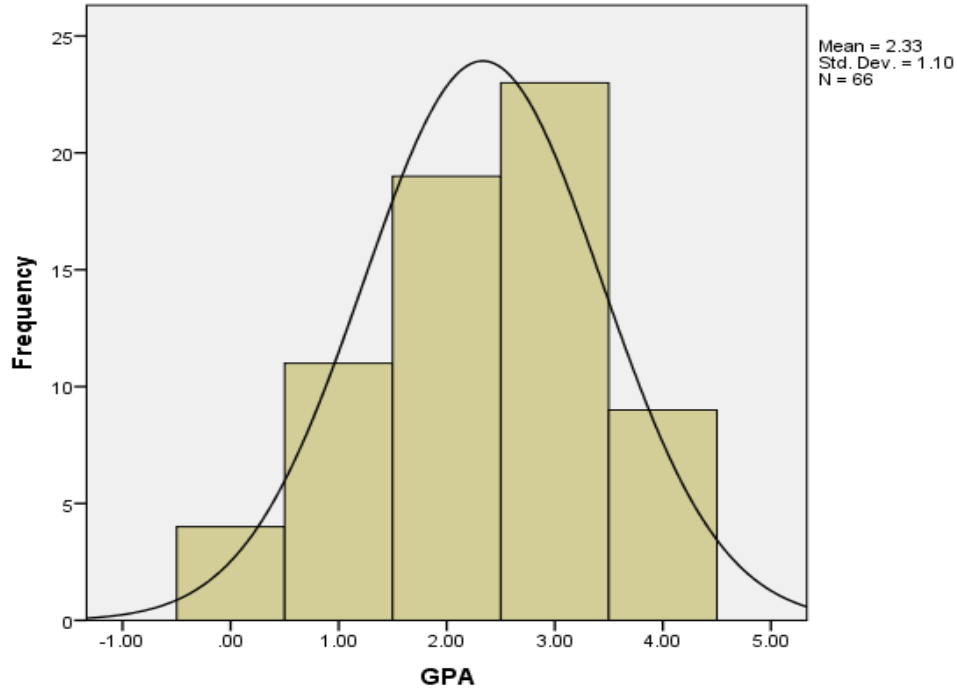
Figure 11

Distribution of GPAs

Item 8, *being recognized on Twitter and/or Facebook has motivated me to do my best in my activities,* displayed a strong positive response. Table 4 illustrates a mean of 3.04 with a standard deviation of .868. Similarly, 31.5 percent of participants strongly agreed, 48.1 percent agreed while 13 percent disagreed and 7.4 percent strongly disagreed with the statement. This suggests that most of the participants like to be recognized on Twitter/Facebook and may be more motivated to do their best in order to be recognized on social media. Figure 8 illustrates these results.
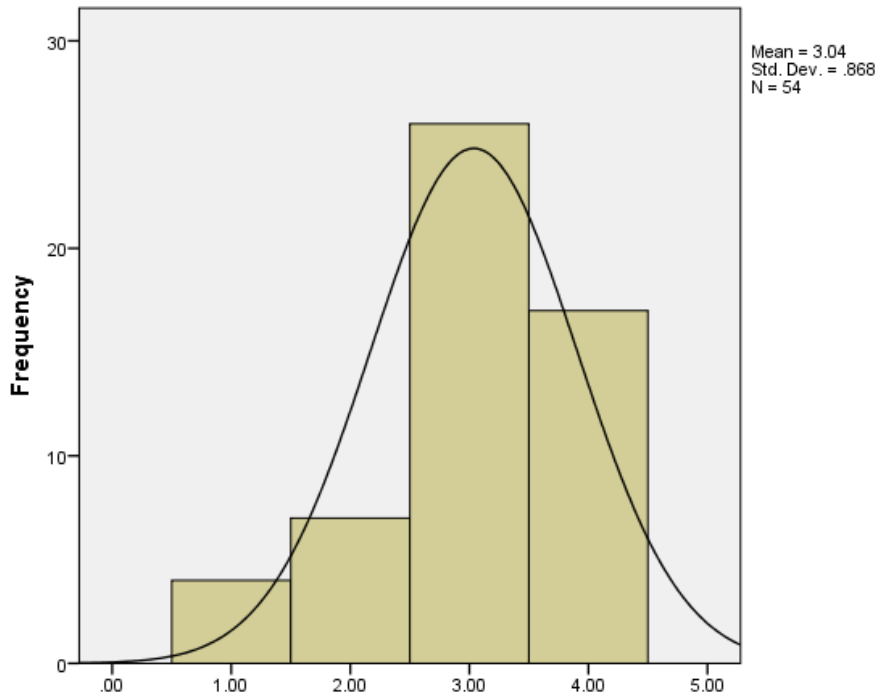
Recognition on Twitter/Facebook Motivates Best Activities Performance

Figure 12

Distribution of Responses for Recognition on Twitter/Facebook Motivates Me to Do my Best in Activities

Pearson's Correlation Coefficient was used to correlate all item responses in Table 3 located at the beginning of this chapter. The correlation between activity recognition (8) and feelings of belonging (5) was found to be statistically significant, *r(43) = .533, p < .01.* This suggests that there is a relationship between students who are recognized on Twitter/Facebook for their accomplishments and increased feelings of belonging, another precept of school connectedness.

Similarly, Item 9, *knowing academics are recognized on Twitter and/or Facebook makes me want to do my best in school,* showed a mean of 2.75 with a standard deviation of .821.

Additionally, 10.9 percent of participants strongly agreed, 65.5 agreed, while 10.9 percent

disagreed and 12.7 percent strongly disagreed with the statement. Figure 13 illustrates these

results.

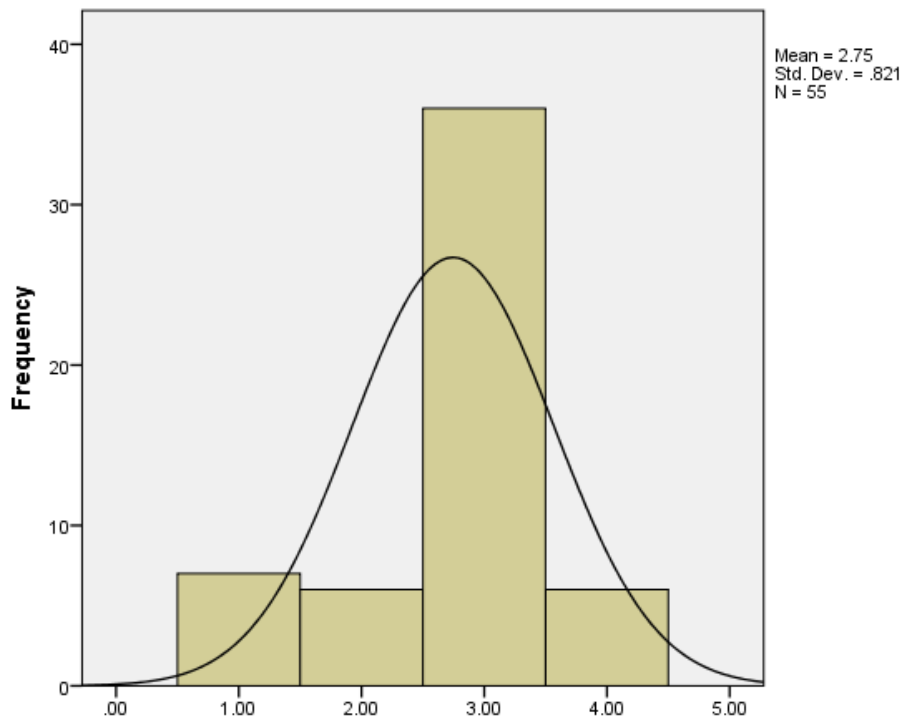**Recognition on Twitter/Facebook Makes Me Do my Best in School**

Figure 13

Distribution of Responses for Recognition on Twitter/Facebook Makes Me Do my Best in

Academics

Pearson's Correlation Coefficient showed a significant correlation between Item 9 and

Item 4. The correlation between academic recognition (9) and reading/posting with school

leaders (4) was found to be statistically significant, *r(51)= .462, p < .01*. While this correlation

was not as strong as others, it still implied that there is a relationship between student

Twitter/Facebook communications with school leaders and student academic efforts.

Moreover, items 8 and 9 presented a strong positive correlation. The correlation between academic recognition (9) and activity recognition (8) was found to be statistically significant, *r(48)= .809, p < .01*. This illustrated that students like to be recognized on Twitter or Facebook for their accomplishments whether academic or in their activities. Figure 14 exhibits the visual for this correlation.
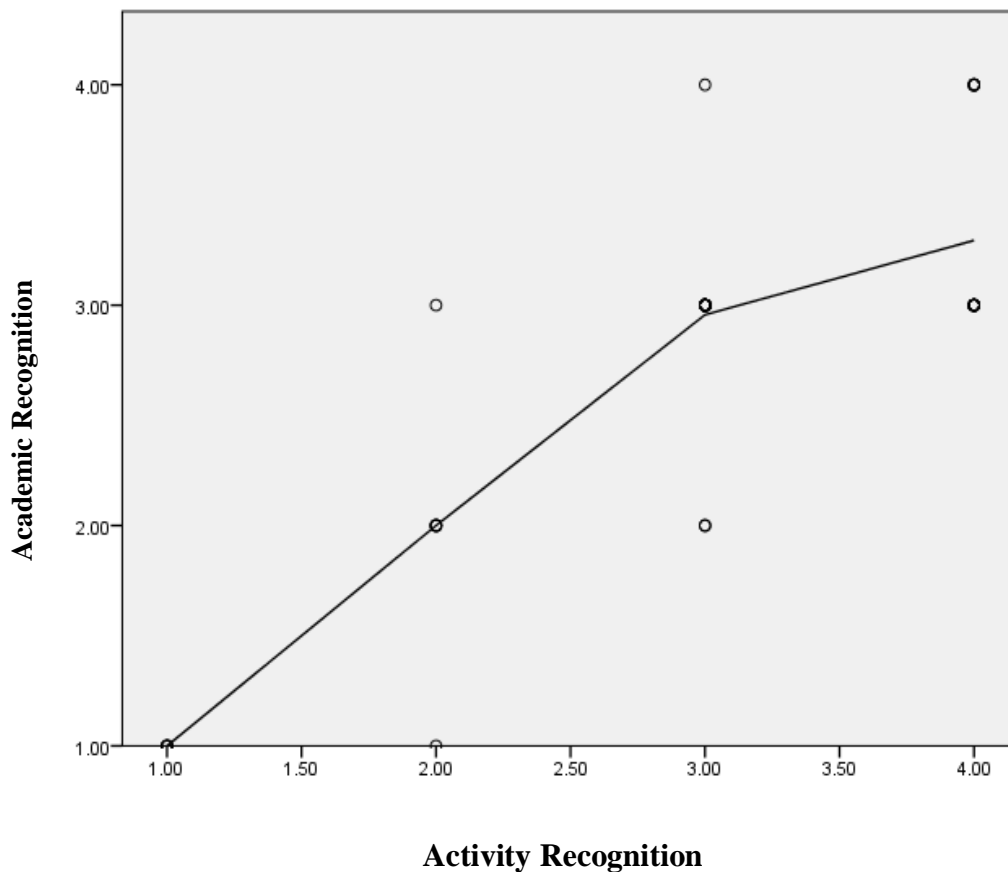
Figure 14

Correlation Between Academic Recognition and Activity Recognition on Social Media

Lastly, items 8 and 9, which surveyed achievement recognized by Twitter and/or Facebook, were combined and correlated with GPA scores. The correlation between recognition

on Twitter/Facebook (8 & 9) and GPA was found to be statistically significant, $r(48)= .335, p <$ $.05$. This correlation demonstrated that there is a relationship, albeit weak, between achievement and students being recognized on Twitter and Facebook for their respective achievements.
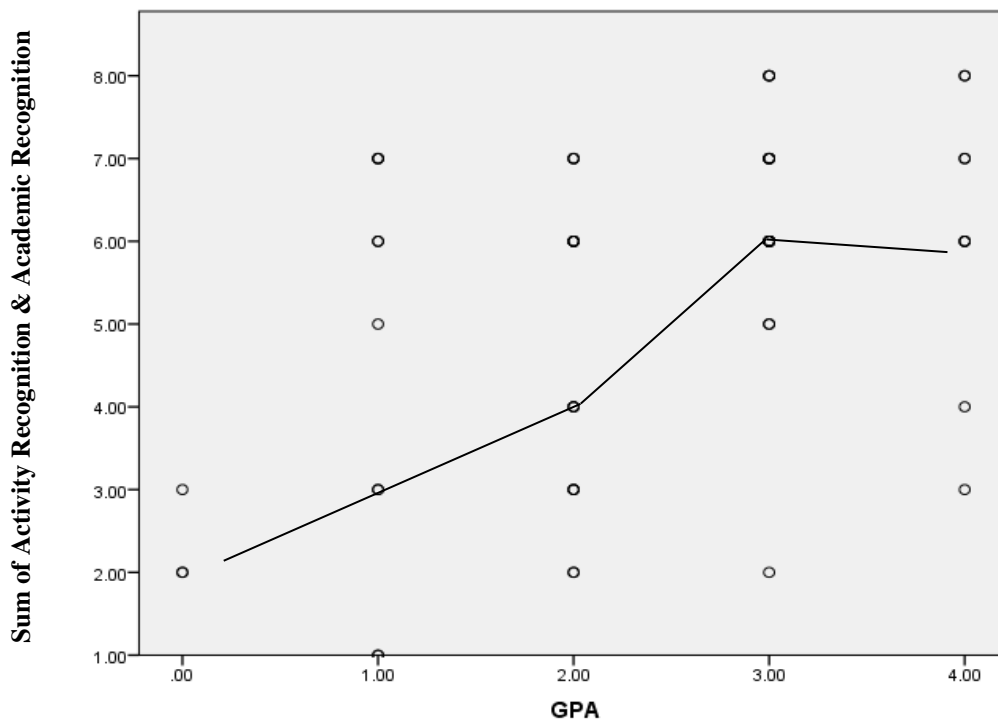
Figure 15

Correlation Between Student Achievement and Social Media Interactions

Engagement

Student engagement, also linked to school connectedness, was analyzed to determine if school leaders' use of Twitter and Facebook to connect with students demonstrated a relationship to engagement. To measure engagement based on social media interactions, items 7, 10, 12 were analyzed. Item 7, *I like when my extracurricular activities are promoted on Twitter and/or Facebook by school leaders,* scored a mean of 3.22 with a standard deviation of .762. Moreover,

36.4 percent strongly agreed, 54.5 percent agreed while 3.6 percent disagreed, and 5.5 percent

strongly disagreed with the statement. The strong positive response revealed that students not

only enjoyed being recognized for their activities, they also appreciated when their activities

were publicized on social media. These results are displayed in Figure 16.
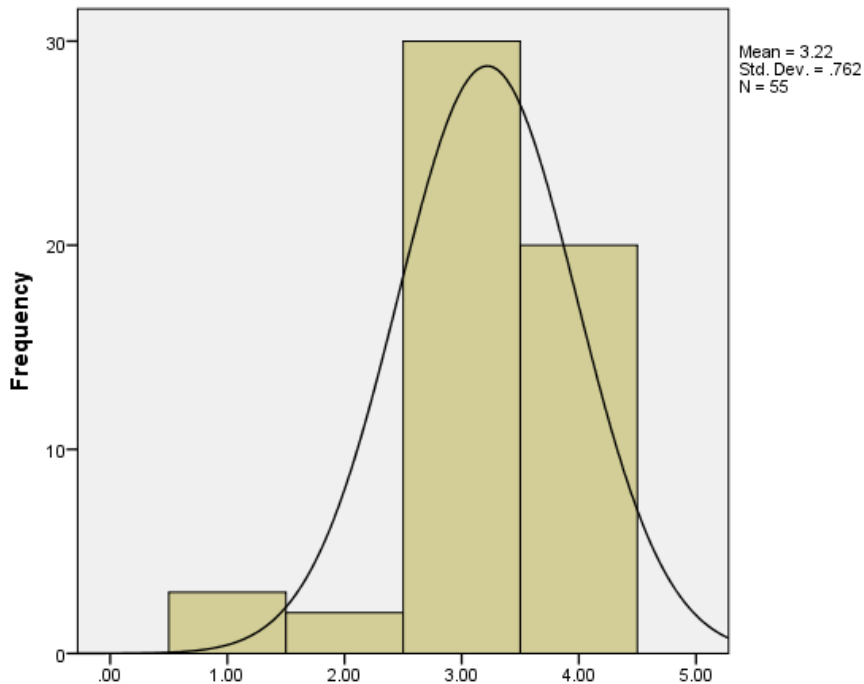
Students Who Like Their Extracurricular Activities Promoted on Twitter/Facebook

Figure 16

Distribution of Responses for Liking Extracurricular Activities Promoted on Twitter/Facebook

Item 10, *I often check my Twitter or Facebook to get information about school activities

and results*, displayed a mean of 2.81 and a standard deviation of .915. Additionally, 19.3

percent strongly agreed, 56.1 percent agreed while 10.5 percent disagreed, and 14 percent

strongly disagreed with the statement. This indicated that the majority of the participants have

checked Twitter or Facebook frequently for information regarding their activities thus using social media as a resource. Figure 17 illustrates these results.
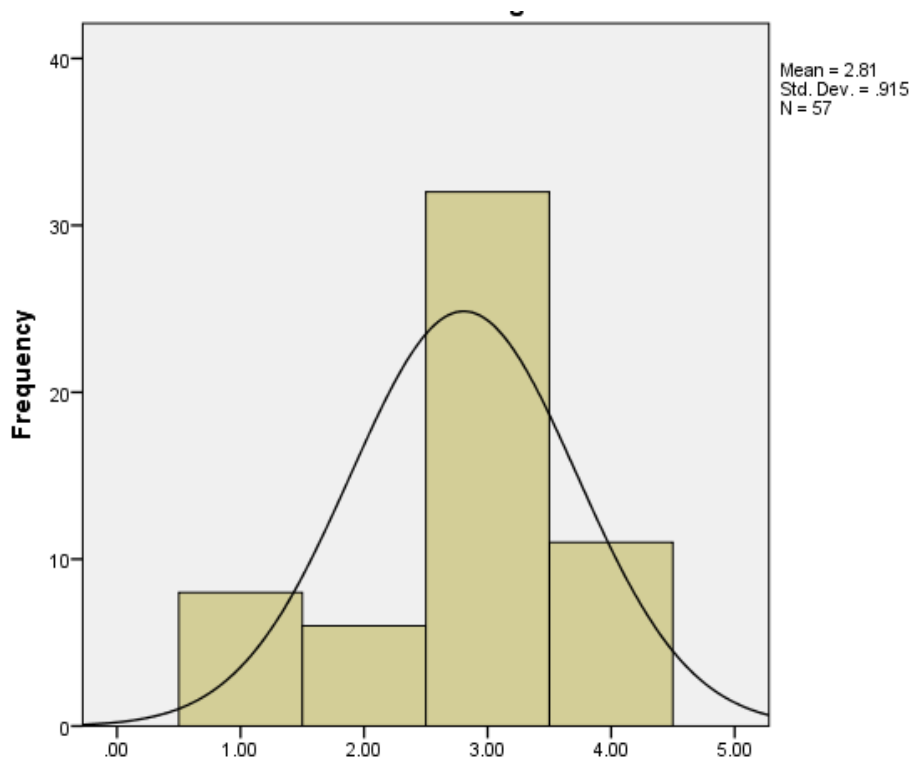
Students Who Check Twitter/Facebook for School Activity Information

Figure 17

Distribution of Responses for Checking Twitter/Facebook for School Activity Information

Item 12, *Twitter and/or Facebook enables me to stay connected to my classmates,* presented a mean of 3.10 with a standard deviation of .736. Furthermore, 27.1 percent strongly agreed, 61 percent agreed while 6.8 percent disagreed, and 5.1 percent strongly disagreed with the statement. The strong positive result indicated that participants used Twitter/Facebook to connect with classmates, which is also a determinant for engagement. These results are presented in Figure 18.
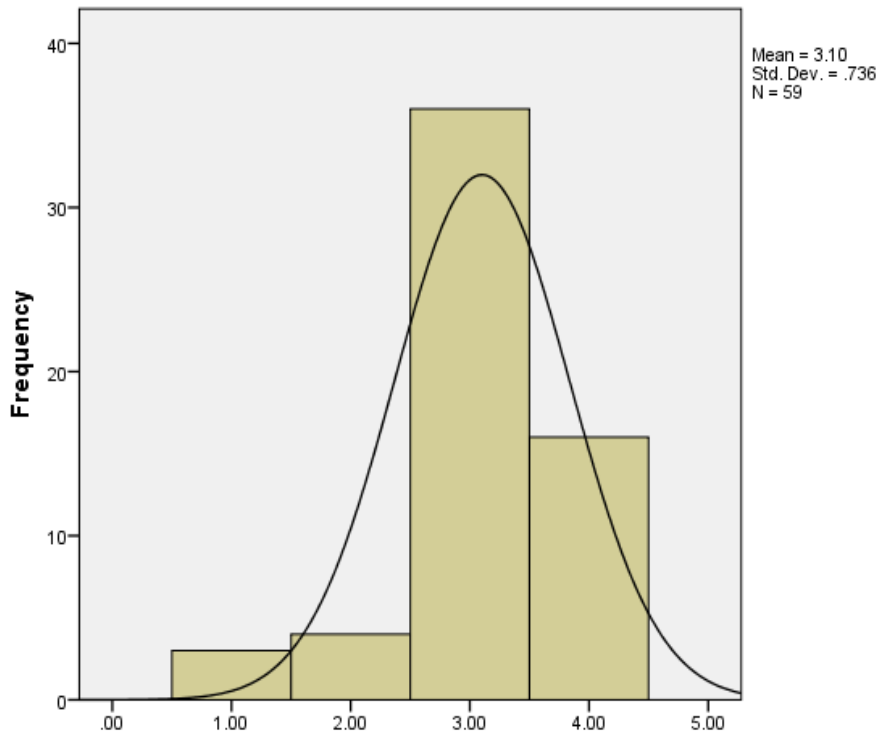
Students Who Stay Connected to Classmates Via Twitter/Facebook

Figure 18

Distribution of Responses for Staying Connected to Classmates via Twitter/Facebook

Pearson's Correlation Coefficient also presented positive correlations from items 7, 10, and 12. The correlation between activity promotion (7) and reading/posting with school leaders (4) was found to be statistically significant, $r(49) = .367, p < .01$. Although the relationship is not strong, the results suggest that students were communicating with school leaders via Twitter/Facebook and engaged with subjects presented on these sites.

Similarly, the correlation between activity promotion (7) and feelings of belonging (5) was found to be statistically significant, $r(45) = .543, p < .01$. This relationship was stronger and suggests a link between students observing their activities promoted on social media and feelings of belonging.

Another notable correlation between activity promotion (7) and activity recognition (8) was found to be statistically significant, $r(46) = .637, p < .01$. This suggests that these students were involved, a precept of engagement, in school as well as liked the publicity and recognition from these activities.

Likewise, Item 10 exhibited a relevant, significant correlation as well. The correlation between activity information (10) and school leader accessibility (13) was found to be statistically significant, $r(50) = .503, p < .01$. The implication of this finding was that students found school leaders, as well as information regarding activities, more easily accessible on Twitter/Facebook.

Item 12 presented two relevant correlations with items 9 and 11. The correlation between connecting with classmates (12) and academic recognition (9) was found to be statistically significant, $r(52) = .327, p < .05$. Similarly, the correlation between connecting with classmates (12) and class information (11) was found to be statistically significant, $r(50) = .377, p < .01$. While neither correlation presented a strong relationship, both relationships suggested that students connect on an academic level via Twitter/Facebook with their classmates.

Finally, items 4 and 5 (connectedness) were combined as were items 7 and 10 (engagement) to test for a relationship. Pearson's Correlation Coefficient was used to run the sum of 4 and 5 and the sum of 7 and 10. A relatively strong, as well as statistically significant, correlation was found between engagement based on activity promotion on social media and school connectedness $r(51) = .709, p < .01$. This indicates a strong relationship between using Twitter/Facebook to promote student activities and students' feelings of school connectedness.
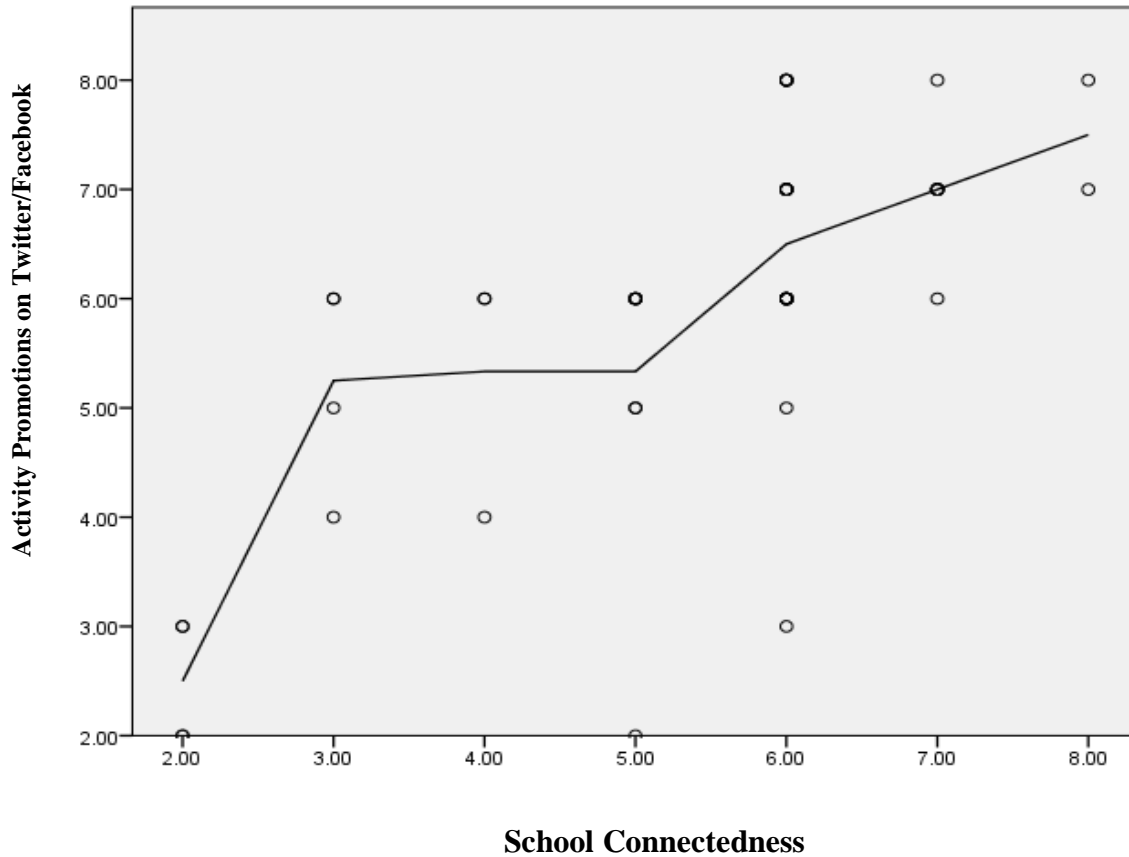
Figure 19

Correlation between Activity Promotion on Twitter/Facebook and School Connectedness

Perception

The final analysis was that of student perception of school leaders who use Twitter and/or Facebook to connect with students. Items examined in the analysis of student perceptions were 13, 14, 15 and 16.   Table 6 displays an overview of three survey items; 13 rated school leader accessibility on Twitter/Facebook, 14 rated if students communicated with school leaders more often because of Twitter/Facebook, and 15 rated if students believed school leaders cared about them.

Table 6

Descriptive Statistics for Items 13, 14, and 15

Variable	Mean	Percent Agree/Strongly Agree	Percent Disagree/Strongly Disagree
School Leader Accessibility	2.70	66	34
Communicate More with School Leaders	2.47	52.9	47.1
School Leaders Care About Me	3.18	93.4	6.6

The most compelling response was to item 15, *school leaders care about me*. This strong positive response suggests that regardless of academics or activities, students in this building feel that school leaders care about them. As this is another precept to school connectedness, it could be inferred that most of these students are at least somewhat connected to school.

More than half of the students also responded that they believed school leaders are more accessible because of Twitter and/or Facebook. With increased accessibility, students are more likely to connect with a school leader. Additionally, 52.9 percent of the students said that they communicate more with school leaders because they are on Twitter and/or Facebook. Greater communication may likely also lead to more connections.

The final survey item allowed participants to check more than one response as more than one may have applied. Item 16, *what do you think about your school leaders using Twitter and/or Facebook,* gave four response choices. The first choice was *it doesn't affect me at all,* the second choice was *it makes me feel connected to school,* the third choice was *I like when they recognize my accomplishments,* and the fourth choice was *it helps me relate to them.* Table 7 presents the responses.

Table 7

Responses to Item 16

Variable	Number of Responses	Percent
It makes me feel connected to school	38	57.5%
I like when they recognize my accomplishments	31	46.9%
It helps me relate to them	20	30.3%
It doesn't affect me at all	23	34.8%

The responses indicated that school leaders using Twitter and/or Facebook to communicate with students does indeed make students feel connected to school. Similarly, students illustrated that they like when they are recognized on Twitter/Facebook for their accomplishments, which corresponds with findings from other survey items. The weakest response was 30.3 percent suggesting that even though school leaders are using Twitter/Facebook, it does not necessarily make them relatable. Finally, 34.8 percent of the participants said that school leaders using Twitter/Facebook didn't affect them at all. Overall, students appear to be receptive to school leaders using Twitter and/or Facebook, and have a positive perception of the concept.

Gender Differences

Independent Samples t-tests were performed on items 4, 5, 7, 9, 14, and 15 to determine if there were significant differences between male and female perspectives. The 5 point Likert Scale consisting of 0 labeled as Does Not Apply to Me, 1 as Strongly Disagree, 2 as Disagree, 3

as Agree and 4 as Strongly Agree was used in full for these tests. In other words, the zeros were

not dropped to keep the number of males and females consistent for all tests. There were no

significant differences presented for any of the items. Table 8 below summarizes the lack of any

statistically significant findings in male and female perception of school leaders using social

media to communicate and feelings of school connectedness.   This suggests that there is not a

notable difference in male and female usage of Twitter and Facebook with school leaders. It also

suggests that there is not a significant difference between males and females enjoying

recognition for achievements on social media. Lastly, it indicates that both males and females

have similar feelings of belonging and school connectedness.

Table 8

Independent Samples t-test of Male and Female Perspectives on School Connectedness via Twitter/Facebook Communications with School Leaders

Survey Question	Male (26)		Female (40)			
	M	*SD*	*M*	*SD*	*t*	*p*
4.Read/Post w/school leaders	1.96	1.31	2.53	1.11	1.88	.065
5. Feelings of belonging	1.88	1.45	2.30	1.29	1.22	.227
7. Activities promoted on Twitter/Facebook	2.54	1.45	2.70	1.44	.445	.658
9. Academic recognition on Twitter/Facebook	2.35	1.35	2.30	1.24	.297	.767
14. Communicate more with school leaders	1.77	1.15	2.09	1.24	1.01	.317
15. School leaders care about me	2.77	1.21	3.05	.932	1.06	.292

*$p < .05$

Summary

Chapter 4 provided a both descriptive and inferential statistical analysis from the data of this cross sectional survey study. Data analysis was broken down by research sub questions and results were structured in the same format. Descriptive statistics were provided for many of the survey questions and Pearson's Correlation Coefficient was utilized as well. Relationships between students using Twitter and/or Facebook to communicate with school leaders and school connectedness were examined for statistical significance. Additionally, Pearson's Correlation Coefficient was used to determine if relationships between students using Twitter and/or Facebook to communicate with school leaders and achievement and engagement existed. Finally, Independent T-tests were used to determine if there was a difference in male and female perceptions of school leader using Twitter and/or Facebook to communicate with students. Chapter 5 discusses the implications and summary of the statistical analyses.

CHAPTER FIVE: DISCUSSION AND SUMMARY

This study examines the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban school district. Additionally, the study assesses the relationship between the feelings of those students who used social media to connect with school leaders and those same students' levels of engagement and achievement. This chapter will interpret the results, connect results to literature and theoretical framework, discuss implications and limitations as well as recommendations for future research.

Research Questions and Implications

The purpose of this study is to examine the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban school district. Past studies presented evidence of community members feeling connected to school districts as well as school administrators through the use of social media (Cox, 2012). However, research on students' feelings of school connectedness when using social media in a school context was lacking. Literature examining students' feelings of school connectedness as a result of progressive school leaders using technology and/or social media to connect and create a sense of community is basically deficient (McLeod & Richardson, 2011). This cross-sectional survey study measured the results of 66 student surveys in order to determine student perspective of using social media to communicate with school leaders. The survey also questioned students regarding their levels of achievement and engagement. The analysis of these surveys (Appendix C) is the basis for the discussion in this chapter.

Discussion of Findings

      Central Question: *What is the relationship between high school students' feelings of school connectedness and their social media interactions with school leaders in a Midwestern suburban district? Additionally, are the social media interactions with school leaders related to those students' engagement and achievement? Finally, are there differences in male and female high school students' use of social media, feelings of connectedness, engagement and achievement?*

Sub Question 1: *What degree of school connectedness exists for students who interact with school leaders on social media?*

      Both Pearson's Correlation Coefficient and descriptive statistics were used to analyze responses. A statistically significant positive correlation was found between students using social media to communicate with school leaders and feelings of belonging at school. This indicates that students who communicated with school leaders via Twitter and/or Facebook felt like they belonged at school. As feelings of belonging are a core piece of school connectedness, this finding is extremely relevant. School connectedness happens when students have a sense of belonging, enjoy school, and believe that school staff are caring and supportive (Blum, 2005).

      Another statistically significant positive correlation was found between frequent communications with accessible school leaders via Twitter/Facebook and school connectedness. This indicates that students communicating with school leaders via Twitter/Facebook is related to feelings of school connectedness. Literature revealed that relationships between students and school staff matter, and the nature and frequency of the contact also matters. Additionally, continued contact strengthened those connections (Kuh, 2003). Likewise, meaningful

relationships built in a school environment were essential to feel a sense of belonging which contributed to students' well-being and feelings of relatedness (Chiessi, Cicognani, & Sonn, 2010). Consequently, the survey results and the literature suggest that frequent communications over social media with accessible school leaders can indeed build school connectedness.

This finding was also related to the strong positive correlation between communicating more often with school leaders and school leaders being on Twitter and Facebook, meaning that the social media mediums allowed students to communicate more frequently with school leaders again indicating that frequency of communication matters.

Students also felt that school leaders cared about them as people. This question presented the highest mean of any of the survey questions at 3.18. Knowing that an adult at school cares about them is another strong piece of school connectedness. Relationships formed between teachers and students are paramount in establishing school connectedness, and the strongest need for relatedness in school was relatedness to teachers (Furrer and Skinner, 2003). Social media usage may contribute to the ability to build and strengthen that connection.

Sub question 2: *Is student achievement linked to social media interactions with school leaders?*

In this study, Grade Point Averages (GPA) as well as achievements and recognition in activities were used to determine if the use of Twitter and Facebook help promote achievement. Grade point averages were self-reported with only four students reporting a 2.5 or less. Conversely, 51 students reported a 3.0 or higher. Additionally, Pearson's Correlation Coefficient presented a statistically significant correlation between reading and posting with school leaders and academic recognition. Based on these findings, it can be inferred that students like to be recognized on Twitter/Facebook for their academic accomplishments, and there is a relationship

between academic recognition and social media communications. The fact that 83.3% of the survey participants reported a GPA of 3.0 or higher, and 76.4% of the survey participants liked being recognized on Twitter/Facebook for academics adds weight to the inference that social media interactions may be related to academic achievement.

Corresponding with the academic findings, it was not surprising that students also liked to be recognized for their achievements in activities. Students were extremely positive in their response to activity recognition with 79.6% of the participants agreeing that they liked Twitter/Facebook recognition for their activities. Moreover, a statistically significant correlation was found between activity recognition on Twitter/Facebook and feelings of belonging, emphasizing the relationship to school connectedness. Activities such as sports, clubs, and extracurricular activities give students an opportunity to feel a sense of belonging and experience feelings of relatedness. Knowing teammates and friends care about them as well as school leaders meets both affective and academic needs (Blum, 2005). Posting achievements in sports, clubs, and other extracurricular activities on Twitter/Facebook appeared to be related to feelings of belonging, which contribute to school connectedness.

Furthermore, the strong statistically significant correlation between being recognized on Twitter/Facebook for activities and academics indicates that students like to be recognized for their accomplishments on social media. The Midwest suburban school where the research was conducted has a considerable Twitter presence, and does a phenomenal job of recognizing all types of activities and academics. While this could account for the powerful response, it can also be concluded that the use of Twitter for recognition is linked to students' achievements. The strength of the correlation as well as the strength of student response conveyed that the Twitter recognition is acknowledged by students. Likewise, Charles City Community Schools

Superintendent Dan Cox's study noted that the administrators he interviewed believed the communications they had with students were well-received and made a difference. For example, social media communications that included encouraging students before an important exam or advertising a special dress up day strengthened the relationship between administrators and students as well as contributed to a stronger district culture (Cox, 2012). Since the results of the study and the literature were cohesive, it can be reasonably established that student recognition on Twitter and/or Facebook is related to student achievement as well as feelings of school connectedness.

Sub question 3: *Is there evidence from the students' perspectives that school leaders' social media use to connect with the student population is related to student engagement?*

Data regarding students' use of Twitter and/or Facebook to get information concerning extracurricular activities exhibited a positive response indicating that students appreciated the use of social media, specifically Twitter and/or Facebook in this case, to promote their extracurricular activities. School activities and athletics provide social interaction as well as a sense of belonging to a supportive group (Chiessi, Cicognani, & Sonn, 2010; Pretty, Conroy, Dugay, Fowler & Williams, 1996). Since student involvement is an element of engagement, and students were positive about the use of social media to promote their extracurricular activities, it can be determined that using social media to promote student activities is linked to student engagement. Furthermore, Pearson's Correlation Coefficient presented a statistically significant correlation between activity promotion on Twitter and/or Facebook and feelings of belonging. This implied that students who were involved in extracurricular activities not only liked the use

of Twitter and/or Facebook to promote these activities, it is related to their feelings of school connectedness.

This supposition was furthered by a statistically significant correlation between the sum of school leaders using Twitter/Facebook to communicate with students and student feelings of belonging and the sum of activity promotion on Twitter/Facebook and activity information on Twitter/Facebook. A strong positive correlation denoted that activity promotion on Twitter and/or Facebook is related to student engagement and students' feelings of school connectedness. Overall, data analysis indicated that activity and academic recognition on Twitter/Facebook by school leaders is linked to feelings of belonging and school connectedness.

An additional element of engagement is being connected to peers at school. Good quality peer relationships help to produce a sense of community at and belonging to the school which increases a connection to the school (Baker, 1998). Survey results presented that 88.1% of the participants agreed that Twitter and/or Facebook kept them connected to their classmates. Consequently, it can be established that the use of social media by school leaders to connect classes and classmates is related to student engagement. The literature supports this conclusion as well. A study conducted in a college class showed that students who used the social media site, Twitter, as part of their college course also showed both higher levels of engagement and connectedness as well as higher grades than the control group. The study by Evans evaluated the relationship between Twitter usage and student learning experience. A positive correlation was established between Twitter usage and the ability to communicate quickly with both classmates and the tutor (Evans, 2014). Results indicated that the incorporation of social media by school leaders was linked to connecting students to their classmates.

Sub question 4: *How do students perceive school leaders who use social media to communicate and connect with the student body?*

The final sub question addressed student perception of school leaders who use social media to communicate and connect with students. Data showed that more students perceived school leaders as more accessible with the use of Twitter and/or Facebook; however, students were neutral on whether or not they communicated with school leaders more frequently because of Twitter/Facebook access. While students may not communicate more frequently because of Twitter/Facebook, the perception that school leaders are more accessible with the use of Twitter/Facebook links with the pillars of school connectedness. The literature imparts that teacher support as well as being able to have genuine conversations with teachers, and talk to teachers about friends contributed to school connectedness (Libbey, 2004).

Furthermore, student perception of caring school leaders was overwhelmingly positive. Agreement that school leaders cared about students as individuals was 93.4%. In the context of using social media, specifically Twitter and Facebook, to communicate with students, this is a critical finding. The literature states that a fundamental piece to a teenager's complete sense of connectedness and well-being is having an adult that he knows cares about him and whom he can trust (Jose, Ryan, & Pryor, 2012).   If students who communicate with school leaders on Twitter/Facebook felt that strongly that school leaders cared about them, then social media communications between school leaders and students may play a larger part in forging feelings of school connectedness.

Moreover, when asked if school leaders using Twitter and/or Facebook made students feel more connected to school, 57.5% of the students responded affirmatively. This mirrors findings from research at the college-level, so while it is not surprising, it confirms that school

connectedness is related to school leaders' social media use. As the literature disclosed, student

response was positive in regards to using Facebook as a college classroom tool. A sense of

classroom community was developed and allowed students the opportunity of social learning and

a feeling of connectedness (Barczyk & Duncan, 2013). Essentially, school connectedness can be

built and strengthened at any educational level by using social media to connect with students.

Finally, there were no significant differences between male and female perceptions of

school leaders using Twitter and/or Facebook to communicate with students. Neither gender

displayed a higher level of posting with school leaders, feelings of belonging, appreciation of

recognition, or being cared about. Although the findings regarding gender were not significant,

the lack of significance indicates that the communications from school leaders are equally

effective to both females and males.

Implications for School Leaders

Technology is here to stay and continually changes at a rapid pace. In order to stay

relevant and produce students who are college and career ready, K – 12 schools must embrace

technology in all of its forms. Social media is part of that technology, and it has proven to be a

valuable tool in both the classroom and to build school connectedness.

Leaders in education have come to realize that relationships are one of the most important

elements of student success, and relationships are directly linked to school connectedness.

People will connect with other people before they will connect with a place or idea, which makes

the human interactions essential in school connectedness. Connecting both students and parents

to the school community has been successful in districts across the country. Technology, in the

form of social media, has provided an affordable, immediate method of information distribution

and communication. Furthermore, students enjoy this form of communication, and it has proven

to be an effective method in building school connectedness. In a time of budget crunches, busy

schedules, and time shortages, using social media to connect with both students and parents just

makes sense. Schools that are not utilizing these readily available tools are missing opportunities

to connect with their students and stakeholders.

As technology continues to progress, educators will need to progress along with it. Eric

Sheninger transformed his school communication model to social media and engaged more

stakeholders than previous traditional methods had (Sheninger, 2015). Furthermore, when

students discard the school-approved social media formats in favor of new, more relevant social

media models, school districts need to move on with the students. Teachers would not ask

students to get out their Blackberries and log on to My Space in today's classroom because those

technologies are no longer relevant. If students are expected to be twenty-first century,

technologically-relevant graduates, education must keep up with the technology trends. "'In our

world today, what is a student more likely going to need to be able to write: an essay or a blog

post?' This question pushes some people to a place of discomfort" (Couros, 2015, p. 21).

Educators must take substantial steps when it comes to technology and students because small

steps will leave their students behind in a society that demands technological relevance on a

daily basis.

K – 12 school districts that use social media in their day-to-day operations have a

multitude of opportunities to make genuine connections to students and parents. Moreover, these

districts can capitalize on chances to engage their students both in school and outside of school.

Universities and colleges around the country are hiring personnel to promote the school and their

students through social media. If this is the expectation for twenty-first century students, then

K -12 school districts must meet that challenge.

The Relationship of the Results to the Theoretical Framework

When examining the relationship between the results of this study and Self-Determination Theory (SDT), several factors stand out. To begin with, relatedness, the tenet of SDT that is prominent in this study, houses a student's well-being, which is defined as positive psychological or social adjustment for the purpose of this paper (Chu, Saucier, & Hafner, 2010). Moreover, relatedness, the primary psychological need in influencing school connectedness, contributes to feelings of belonging and the belief that the individual is cared about at school (CDC, 2009; Ryan & Deci, 2000). One of the most compelling results of this study was the overwhelmingly positive response that students felt that school leaders cared about them. This directly connects to relatedness and students feeling cared about at school. Furthermore, the significant positive correlation between students using Twitter and/or Facebook to communicate with school leaders and feelings of belonging also links to relatedness with the feelings of belonging.

Engagement and achievement similarly contribute to relatedness. Relatedness is connected to a strengthened feeling of psychological well-being, academic performance, student engagement and positive social behavior (Gillison, Standage, Skevington, 2008). The results presented a strong positive correlation between student recognition on Twitter/Facebook for both academic accomplishment and extracurricular activities. These findings parallel with academic performance and student engagement. Additionally, research shows that children who rate high in relatedness not only display higher levels of engagement, but they also progress more over time (Furrer & Skinner, 2003). Results of this study presented a majority of students who were

involved in school and appreciated social media recognition for their involvement. Additionally, the majority of the student participants displayed a high level of academic performance for which they appreciated recognition. The significant positive correlation between recognition on Twitter and/or Facebook and feelings of belonging effectively connect the results of the study to the concept of relatedness and school connectedness.

Limitations of this Study

One limitation of this study was that it was confined to one high school. While the school where the research was conducted has an extremely large Twitter presence, it only allowed for student perspectives from one building. Furthermore, only juniors and seniors were invited to participate in the study also limiting the possible participant pool. The district and superintendent also have a large Twitter and Facebook presence, but the possible pool was 963 juniors and seniors from one building versus approximately 6000 high school students in the district. Additionally, the small number of participants in the study limited the ability to make solid inferences.

A second limitation was that the survey was distributed on paper. To ensure student privacy and safety, permission to send out an electronic survey via email was not granted. Participants had to take home the survey and have their parents sign the consent form, complete the survey, and then return it to the school. This limited the participant pool to those who were interested enough to take it home, complete the process, and return the survey. Seventy-four students returned the survey completed, and out of the 74 completed surveys, 66 met the criteria. The use of paper surveys was necessary to be able to access a student participant pool, but most likely limited the number of participants.

Finally, participants were included on a volunteer basis. Although all 963 juniors and seniors at the Midwest suburban high school received a copy of the survey and instructions on returning it, the survey was returned by only those who volunteered to participate. One result of this was a homogeneous sample of high-achieving, involved students. Consequently, there could have been students who were very active on Twitter/Facebook with school leaders who were not as involved, but opted not to participate. Likewise, there also could have been students who felt differently than the reported results but did not choose to share their perspective.

Further Research

Research regarding student perspective of K – 12 school leaders using social media to communicate with students is lacking. Richardson, Bathon, Flora and Lewis (2012) reviewed research conducted at the K-12 level regarding school leadership, technology and social media and found this area to be deficient. A search of related literature by McLeod and Richardson addressed this problem stating that there simply is not enough quality literature and research to draw accurate conclusions in regards to students and connectedness (McLeod & Richardson, 2011). The results from this 2017 study on social media and school connectedness only scratch the surface. Further research on student perspectives of school leaders using social media to communicate and related feelings of school connectedness is necessary.

Type of Study

For a quantitative study, a larger sample of participants from more than one building may produce the same results, but would give the original findings more weight. Using a different method of delivery may also garner more participants. A qualitative study interviewing a

carefully selected student panel would allow researcher to acquire a much more in-depth student perspective. While the participant pool may be much smaller, the researcher would have more opportunity to obtain thoughtful responses versus Likert scale responses.

Topics

While school connectedness was the main focus of this study, engagement and achievement were also explored in relation to school connectedness. Future research may evaluate the degree of student involvement in extracurricular activities in relation to their level of school connectedness. Likewise, regarding achievement, research may examine more than a self-reported GPA. With permission, researchers could study actual participant GPA and ACT scores which would present a more accurate academic profile. This could then be compared to the participants' level of school connectedness. An additional topic for exploration is type of social media communication. Is the school leader just disseminating information via social media or is the school leader actually connecting with student by interacting on social media? A tweet with a newsletter may not get the same response as recognition for a high ACT score. A final topic would be to compare levels of school connectedness, achievement, and engagement in students who use social media to communicate with school leaders versus those who do not.

Summary

The purpose of this study was to examine the relationship between high school students' feelings of school connectedness and social media interactions with school leaders in a Midwestern suburban school district. The study also assessed the relationship between the

feelings of those students who used social media to connect with school leaders and those same students' levels of engagement and achievement.

Participants were high school juniors and seniors who spent time communicating with school leaders on Twitter and/or Facebook. All participants volunteered to complete a paper survey that was given to them in their homeroom. Surveys assessed the students' feelings regarding school connectedness, engagement, and achievement in relation to school leaders' use of Twitter/Facebook. While the use of paper surveys may have diminished the pool of volunteers, responses were consistent and appeared genuine.

Results from this study are consistent with those of studies performed at the college level. The use of social media both in and out of classrooms assisted in developing feelings of belonging and consequently, school connectedness. Significant correlations were found between school leaders' use of Twitter and/or Facebook to communicate with students and students' feelings of school connectedness. Additionally, results presented positive student response regarding school leaders' use of social media to connect with students.

This research study supplements the small quantity of research regarding student perspectives of school leaders using social media to connect with their students at the K-12. As research at this level remains lacking, future research should be done. In order to produce twenty-first century graduates, K-12 districts have to keep up with technology trends. In doing so, student perspective must be considered for education to be effective.

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Appendix A: Informed Consent Parent Permission Form

Dear Parent/Guardian:

My name is Julie Kerkman and I am a 7th grade teacher in   Public Schools. Currently, I am writing my dissertation, which involves researching the association between social media use and students feeling connected to their school or district. The data gathered will be a part of my dissertation, which is required to complete my Doctorate of Educational Leadership.

In a continuing effort to serve the   Public Schools students, I am conducting a research study to determine if the Twitter and Facebook communications are effectively reaching our students. The goal of this research is to find out if school leaders using Twitter and Facebook is also an effective method to not only connect with students but also distribute information to students.

I would like to ask for your permission to allow your student to complete this survey. The

        have granted me permission to conduct this study.

No names or identifying information will be used in the study and all information will be kept confidential. Thank you in advance for allowing your student's data to be used in the study. Please indicate on this form if you DO want your student to participate in the survey. If you give your permission, your student may complete the survey attached and return to the box located on the security desk inside the front doors. If you DO NOT wish for your student to participate, you do not need to return this form.

_____ Yes, my student may participate in this survey.

Parent Signature _____

_____ Yes, I would like to participate in this survey

Student signature _____

Appendix B: Instructions for Homeroom Teachers

Teachers

Thank you for taking the time to hand out these surveys! Please read the following instructions to your homeroom students when you hand out the surveys.

"A survey is being conducted in the district to find out how students feel about the Twitter and Facebook posts within the district. If you would like to participate, please take home the envelope, have your parents sign the permission slip, and then you will fill out the survey. The survey can be returned to the "Survey Return Box" located at the security desk by the front doors. Please return the survey by _____."

Appendix C: Participant Survey Questions

Part A – Demographic questions

1. Gender: Male   Female

2. Grade: 11th   12th

3. Approximately how many **hours** do you spend reading and/or posting on Twitter and/or Facebook each day?

0   Less than 1   1 – 2   2 - 4   4 – 6   6 – 8   8 or more

4. My grade point average (GPA) range is:

4.0+   3.5 – 3.99   3.0-3.49   2.5 – 2.99   Below 2.5

Part B – Social media use

4. When on Twitter or Facebook, I read school leaders (teachers, principals, coaches, superintendent) posts and/or post comments to school leaders.

Does Not   Strongly Disagree   Disagree   Agree   Strongly Agree
Apply to me

5. Communicating (reading and/or posting) with school leaders on Twitter or Facebook makes me feel like I belong at school.

Does Not   Strongly Disagree   Disagree   Agree   Strongly Agree
Apply to me

6. I have participated in extra-curricular activities (sports, music, clubs, journalism, theater, etc) at school during this school year (2016-2017).

Does Not   1 -2 activities   3 – 4 activities   5 or more activities
Apply to me

7. I like when my extracurricular activities are promoted on Twitter and/or Facebook by school leaders.

Does Not   Strongly Disagree   Disagree   Agree   Strongly Agree
Apply to me

8. Being recognized on Twitter and/or Facebook has motivated me to do my best in my activities.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

9. Knowing academics are recognized on Twitter and/or Facebook makes me want to do my best in school.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

10. I often check my Twitter or Facebook to get information about school activities and results.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

11. Twitter and/or Facebook helps me stay informed about my classes.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

12. Twitter and/or Facebook enables me to stay connected to my classmates.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

13. School leaders (teachers, principals, coaches, superintendent) are more accessible because of Twitter and/or Facebook.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

14. I communicate (read or post) with school leaders (teachers, principals, coaches, superintendent) more often because of social media.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

15. I believe that school leaders (teachers, principals, coaches, superintendent) care about me as a person.

Does Not Apply to me	Strongly Disagree	Disagree	Agree	Strongly Agree

16. What do you think about your school leaders using Twitter and/or Facebook? Check all that apply

    o   It doesn't affect me at all
    o   It makes me feel connected to school
    o   I like when they recognize my accomplishments
    o   It helps me relate to them

Appendix D: The Rights of Research Participants

THE RIGHTS OF RESEARCH PARTICIPANTS*

AS A RESEARCH PARTICIPANT AT COLLEGE OF SAINT MARY

YOU HAVE THE RIGHT:

1. TO BE TOLD EVERYTHING YOU NEED TO KNOW ABOUT THE RESEARCH BEFORE YOU ARE ASKED TO DECIDE WHETHER OR NOT TO TAKE PART IN THE RESEARCH STUDY. The research will be explained to you in a way that assures you understand enough to decide whether or not to take part.

2. TO FREELY DECIDE WHETHER OR NOT TO TAKE PART IN THE RESEARCH.

3. TO DECIDE NOT TO BE IN THE RESEARCH, OR TO STOP PARTICIPATING IN THE RESEARCH AT ANY TIME. This will not affect your relationship with the investigator or College of Saint Mary.

4. TO ASK QUESTIONS ABOUT THE RESEARCH AT ANY TIME. The investigator will answer your questions honestly and completely.

5. TO KNOW THAT YOUR SAFETY AND WELFARE WILL ALWAYS COME FIRST. The investigator will display the highest possible degree of skill and care throughout this research. Any risks or discomforts will be minimized as much as possible.

6. TO PRIVACY AND CONFIDENTIALITY. The investigator will treat information about you carefully and will respect your privacy.

7. TO KEEP ALL THE LEGAL RIGHTS THAT YOU HAVE NOW. You are not giving up any of your legal rights by taking part in this research study.

8. TO BE TREATED WITH DIGNITY AND RESPECT AT ALL TIMES.

THE INSTITUTIONAL REVIEW BOARD IS RESPONSIBLE FOR ASSURING THAT YOUR RIGHTS AND WELFARE ARE PROTECTED. IF YOU HAVE ANY QUESTIONS ABOUT YOUR RIGHTS, CONTACT THE INSTITUTIONAL REVIEW BOARD CHAIR AT (402) 399-2400. *ADAPTED FROM THE UNIVERSITY OF NEBRASKA MEDICAL CENTER, IRB WITH PERMISSION.

Appendix E: IRB Approval

COLLEGE OF SAINT MARY

March 29, 2017

Dear Ms. Kerkman,

Congratulations! The Institutional Review Board at College of Saint Mary has granted approval of your study titled *School Connectedness with High School Students and School Leaders Using Social Media*. Your CSM research approval number is **CSM 1703**. It is important that you include this research number on all correspondence regarding your study. Approval for your study is effective through April 30, 2018. If your research extends beyond that date, please submit a "Change of Protocol/Extension" form which can be found in Appendix B at the end of the College of Saint Mary Application Guidelines posted on the IRB Community site.

Please submit a closing the study form (Appendix C of the IRB Guidebook) when you have completed your study.

Good luck with your research! If you have any questions or I can assist in any way, please feel free to contact me.

Sincerely,

Vicky Morgan

Dr. Vicky Morgan
Director of Teaching and Learning Center
Chair, Institutional Review Board   *   irb@csm.edu