HOW AND WHY ARE KINDERGARTEN THROUGH TWELFTH

GRADE PUBLIC SCHOOL TEACHERS USING SOCIAL MEDIA

FOR PROFESSIONAL DEVELOPMENT?

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DEDICATION

I would like to dedicate this work to my Lord and Savior without whom this would not have been possible.

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VITA

Sherry Kerr Huckaby was born in Columbus, Georgia. After completing high school in Columbus, Georgia in May 1991, she enrolled in Columbus State University. She received a Bachelor's of Science degree in Early Childhood Education in May 1999. During the following years, she was employed as a first grade teacher for the Russell County School District in Phenix City, Alabama. After six and a half years of teaching first grade, she became a Reading Coach for the Russell County School District. In August of 2007, she entered the graduate program at Troy University in Phenix City, Alabama. She obtained a Master's of Science degree in Early Childhood Education in May of 2008. After serving as a Reading Coach for the Russell County School District for seven and a half years, she reentered the classroom as a first grade teacher for the next three years. She entered into the Education Doctoral program at Columbus State University in January of 2010. This dissertation completes the requirements she needs to graduate in May 2016 from Columbus State University with a Doctor of Education Degree in Curriculum and Leadership.

ABSTRACT

Social media has revolutionized technologies used today. While social media was originally developed for personal use, it has also permeated the professional world. Teachers are among those who are embracing social media for professional purposes. The purpose of this mixed methods study was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development. The participants were 78 teachers from a rural school district in the southeastern United States. All participants completed a social media questionnaire, and the researcher conducted fifteen individual interviews and a focus group interview for follow-up.

Data analysis revealed 96% (n=75) of the participants used social media for professional development. A majority of participants, 88% (n=66), used social media websites as their preferred application to meet professional development needs. Participants indicated they were using social media: to seek out new instructional strategies and ideas, 88% (n=70); obtain resources for the classroom, 87% (n=68); further professional knowledge, 76% (n=59); deliver instructional content, 63% (n=49); and collaborate with other teachers, 50% (n=39). In addition, a major finding from the study was a majority of participants, 56% (n=34), rely solely on their personal judgment to assess the credibility of information obtained through social media sources.

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CHAPTER 1

INTRODUCTION

The use of social media has become a common thread within our society revolutionizing our personal and professional lives (Harris & Rea, 2009; Pereira, Baranauskas, & Silva, 2013). Social media was once an area thought to be dominated by high school and college students (Aydin, 2012). However, over the past several years there has been tremendous growth in social media consumption among the older adult population (Purrcell, Heaps, Buchanan, & Friedrich, 2013). According to Duggan & Smith (2014), 73% of adult online users are using social media applications regularly in some form or fashion. In addition, the Nielson 2012 report on social media revealed that, "the average American now owns four digital devices and spends an average of 60 hours a week consuming content across the devices" (p.1).

Today, professionals such as teachers have also joined the social media uprising. Purrcell et al. (2013) report that 78% of teachers, principals, and librarians claim to be actively connecting to at least one social media site such as Facebook, MySpace, Twitter, blogs, wikis, or interactive websites on a daily basis. Due to the appeal of using technology in the classroom, it is not surprising that inventive methods are being undertaken to incorporate the use of social media into the classroom (Helsper & Eynon, 2010). The use of social media within the classroom has been enticing to teachers who have hopes of engaging learners as a large portion of the population of social media users is in fact students (Aydin, 2012).

Today, teachers are embracing social media for purposes beyond delivering content and engaging learners. Just as quickly as the Internet evolved to provide opportunities for

connectivity, teachers' usage of these technologies in pursuit of professional knowledge has

evolved as well. Purrcell et al. (2013) explain how over 80% of the teachers surveyed expressed

how the use of digital tools such as social media have played an integral role in classroom preparation and acquisition of professional knowledge. Ranieri, Manca, & Fini (2012) found that teachers are using Facebook to exchange pedagogical information, share classroom ideas and projects, connect with like-minded professionals to cope with physical isolation, and share resources.

Background

As with most professions, time is a valuable resource and teaching is no exception. Due to the nature of teachers' isolated work with students for considerable periods of time during the workday, finding the time for improving one's professional knowledge can be difficult. The work day often begins only a short period before the school day begins and is often finished just after students leave. With limited amounts of time with no supervisory responsibilities during the school day, teachers are constrained by small windows of opportunities and limited proximity to seek opportunities that would result in acquiring additional pedagogical knowledge (Lohman, 2006). Additional afterschool duties, instructional preparation, and faculty meetings often hinder the amount of free time that teachers have available to participate in activities that could potentially yield new pedagogical information. Jurasaite-Harbison (2009) refers to this restrictive phenomenon in schools as "architectural inconvenience" (p. 307). This "architectural inconvenience" phenomenon is a contributing factor that creates an isolating environment for many teachers (Hou, 2012). In fact, due to limited resources and funds, many schools are unable to staff extracurricular instructional services such as music, art, and computer education classes that in the past have afforded the added benefit of additional planning or preparation time for the classroom teacher.

According to Comas-Quinn, Mardomingo, & Valentine (2009), "new technologies" have

created "a more flexible learning environment" for teachers to seek out knowledge or

information based on their own individual and classroom needs (p.109). For many teachers the

only free time available to seek out additional knowledge is at home in front of their own

computers. Because informal learning can transpire when collaborating with others,

collaboration is an essential part of a professional development for many teachers (Boud, 1999).

The ease of the accessibility and convenience the Internet has provided have given teachers the

opportunity to share and collaborate with other teachers outside of the school walls at the touch

of a button. For many teachers, due to the ease of accessibility and instant connectivity, seeking

others with whom to collaborate professionally has replaced traditional forms of collaboration

with colleagues from within one's own school (Francis-Poscente & Jacobsen, 2013). Therefore,

with a lack of time during the school day for improving one's professional knowledge, many

teachers are turning to social media to satisfy their professional development needs.

Traditionally professional development training opportunities that teachers have been

afforded have been limited and brief leaving teachers on their own to seek out additional

information (Jaquith, Mindich, Wei, & Darling-Hammond, 2010). Some traditional professional

development opportunities for teachers have been a one size fits all, not tailored to meet

individual needs and often not a result of choice. According to Park, Heo, & Lee (2011), due to

"the increasing and diversified demands of society, lifelong learning has been considered not

something extra but something required and essential" (p.150). Therefore, teachers cannot

afford to rely on learning opportunities that will be provided for them; they may need to actively

seek out additional knowledge on their own. Fortunately, due to advances in technology, many

teachers are embracing the tools they have readily available to them through social media

sources such as Facebook, teacher blogs, wikis, and interactive websites in pursuit of the

knowledge they are seeking. According to Hou, Sung, & Chang (2009), consulting other teachers' social networking sites "may help teachers build up their instructional knowledge base" through the interaction with other community members that have similar goals (p. 326).

The third element essential in understanding the usage of social media by teachers for professional developmental purposes is the credibility and quality of the information as well as the sources from which information is obtained. According to Winter & Kramer (2014), due to the abundance of information available on the Internet, consumers can get lulled into a false sense of security with regards to the credibility of information being viewed or obtained. Lucassen, Muilwijk, Noordzij, & Schraagen (2013) suggest the responsibility of credibility evaluation falls to the consumer of the desired content. Because anyone can make information available online, teachers should display caution when gathering information from the Internet (Lucassen et al., 2013).

According to Harris & Rea (2009) because the use of social media is spreading throughout our lives and becoming common practice, it should be addressed and studied so that teachers and school leaders can determine if there are benefits associated with its usage in the field of education. Ryan, Magro, & Sharp (2011) report that how teachers are using social media is still an area that has not been researched thoroughly due to the rapid evolution of applications available on the Internet today. With the usage of social media becoming such a salient issue within our society, it is important to understand not only how teachers are using social media for professional developmental purposes, but why they feel the need to do so as well. The lack of literature reveals a clear need for further research regarding the uses and applications of social media within the field of education.

Statement of the Problem

There are three problems associated with teachers using social media for professional developmental purposes. The lack of time during the school day leading many teachers to rely on Internet resources such as social media to meet their professional development needs, how traditionally provided professional development opportunities have been unable to meet the needs of all teachers, and whether or not teachers are assessing the credibility of the information being obtained from social media sites are the three problematic elements underpinning this study.

The first problem associated with teacher use of social media for professional development is the lack of time teachers have during the school day to attend professional development opportunities. Even though Dash, de Kramer, O'Dwyer, Masters, & Russell (2012) claim that professional learning has been deemed necessary for improving teacher quality and practices, the architectural design of most school schedules does not afford teachers the time to participate in professional learning activities. Collaborating with other teachers is one of the methods many teachers employ to acquire professional knowledge (Riveros, 2012). However, even onsite collaboration can be challenging within the teaching profession due to the isolating nature of a teacher's work with students for considerable periods of time during the work day. Because of the ease and access of connectivity with web 2.0 capabilities, collaboration among peers has been shifting from the traditional face to face method to online interactions (Francis-Poscente & Jacobsen, 2013). Collaboration can "foster teacher learning and transform teaching practices" (Riveros, 2012, p. 605), but what is unclear at this point, is how these informal online collaboration efforts via social media are informing instructional practices within the classroom (Mackey & Evans, 2011).

Another problem emerging from teacher usage of social media is the seeking out of

additional knowledge as a result of unsatisfactory professional development opportunities or insufficient access. According to Jaquith et al. (2010), traditional professional development training opportunities that teachers have been afforded are limited and brief, leaving many teachers on their own to seek out additional information they desire to improve their craft. As a result of uninspiring professional development trainings, turning to social media to satisfy a quest for additional pedagogical knowledge is emerging in the field of education (Bodell & Hook, 2011). However, because interactive applications available online, such as social media, are growing at such an alarming rate, the research regarding use of these applications has been unable to stay as current. Therefore, investigating how and why teachers are using social media for professional development purposes will add to the current body of research and enlighten school leaders on the gaps in professional development opportunities currently available to teachers.

Additionally, there was a need to investigate if classroom teachers are aware of or try to determine the quality and credibility of the information they are obtaining from social media sources. The capability of today's technology allows anyone the opportunity to post information online regardless of authenticity (Lucassen et al., 2013). Even though creators of online material may give the impression of possessing the credentials necessary to offer advice regarding the topic, it is critical that teachers obtain sound advice from persons with the required expertise to do so. Therefore, further investigation regarding the quality and credibility of the social media sources that teachers are using to obtain professional knowledge, as well as teachers' awareness and perceptions of the quality and credibility of the social media sources they are accessing was warranted (Cook & Pachler, 2012).

Purpose of the Study

The purpose of this mixed methods study was to investigate how and why teachers are using social media for professional development purposes. Open-and-closed ended questions on a questionnaire, during interviews, and during a focus group were used to obtain rich insight of the participants' perspectives regarding social media usage for professional development. This study provided insight into the ways teachers were using social media for professional development such as obtaining additional resources, collaborating with colleagues online, supplementing professional development opportunities, or accessing pedagogical content. This study also delved into the possible reasons why teachers were using social media for professional development such as a lack of time during the school day, ease and convenience of social media through the Internet, preference, or shortcomings of traditional professional development opportunities afforded. Finally, this study investigated if and how teachers determined the quality of the information found on social media sites.

Significance of Study

Determining the type of information teachers are seeking on social media, whether it be content knowledge, advice on implementation, or collaboration, is beneficial for curriculum leaders in an effort to streamline the process of cultivating highly effective teachers fully equipped with the essential skills to maximize their instructional potential. Facilitating the acquisition of the knowledge or information that teachers are seeking by linking them with readily available, quality content via social networking sites such as Facebook, blogs, or wikis could be an efficient means to improve instruction. However, it is also important to understand the negative aspects that may be associated with teacher usage of social media for professional

development purposes. If teachers are not displaying caution when consulting social media sources, then there could be transference of incorrect information. Because existing studies regarding teacher usage of social media have focused on using social networking sites such as Facebook, Twitter, and MySpace to deliver content (Aydin, 2012; Al-Mukhaini, Al-Qayoudhi, & Al-Badi, 2014; Baran, 2010; Cain & Policastri, 2011; Jong, Lai, Hsia, Lin, & Liao, 2014; Lui, 2010; Mazman & Usluel, 2010; Ranieri, Manca, & Fini, 2012; Razak, Saeed, & Ahmad, 2013; Ryan, Magro, & Sharp, 2011; Selwyn, 2007; Shih, 2011) rather than its use for professional development opportunities, this study will strengthen and add to the current body of literature on how teachers are using social media.

Research Questions

Because the role of social media in the educational arena is fairly new (Razak, Saeed, & Ahmad, 2013), a scholarly study was needed to investigate how and why kindergarten through twelfth grade teachers are using social media for professional development purposes. The guiding research questions included:

1. How are kindergarten through twelfth grade public school teachers using social media for professional development?

2. Why are kindergarten through twelfth grade public school teachers using social media for professional development?

3. What types of social media applications are kindergarten through twelfth grade public school teachers using social media for professional development?

4. How are teachers assessing the credibility of the information obtained from social media sources?

Summary

Social media has been growing in popularity over the past ten years, especially in the field of education (Harris & Rea, 2009; Razak, Saeed, & Ahmad , 2013). The instant connectivity and accessibility the Internet provides has allowed many teachers the opportunity to have access to resources and colleagues virtually anytime and anywhere, making the use of social media to improve pedagogical knowledge extremely appealing. Because teachers are often faced with limited windows of time during a typical school day to collaborate with colleagues in an effort to improve professional knowledge, the use of social media among teachers has increased (Ranieri, Manca, & Fini, 2012). In addition, even though research has clearly documented the benefits of effective professional development with increased professional knowledge, not all teachers have equal access to quality professional development (Hirsh & Killion, 2009; Desimone, 2011).

It is evident that the role of social media within the field of education is a trending topic. While much of the current research on social media in the field of education has focused on the use of social media to deliver content and engage today's technology savvy learners, how social media is being utilized by teachers for professional development purposes is an area that remains underexplored (Harris & Rea, 2009; Mazman & Usluel, 2010). Therefore, the purpose of this mixed methods study was to investigate how and why teachers were using social media for professional development purposes. This study could assist school and curriculum leaders with information regarding how and why teachers are using social media to access professional development which could be helpful in planning professional development opportunities, streamlining the process of matching teachers with effective professional development opportunities, and understanding the professional development needs of teachers.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The purpose of this exploratory mixed methods study was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional purposes. The review of literature focuses on the following concepts: 1) informal learning, 2) online learning, 3) traditional professional development, 4) effective professional development, 5) online professional development, 6) Web 2.0 and the Internet, 7) social media, 8) social media as a learning environment, and 9) the disadvantages of using social media.

The enhanced interactive capabilities of today's version of the Internet, has attracted millions of users (Boyd & Ellison, 2008).   The use of the Internet is prevalent in our personal as well as professional lives. Advanced digital technologies and Internet access have altered many aspects of our daily lives, especially in the areas of communication and learning (Burden, 2010; Clough, Jones, McAndrew, & Scanlon, 2008; Comas-Quinn, Mardomingo, & Valentine, 2009: Imperatore, 2009) and have become a standard practice in today's classroom (Imperatore, 2009). Applications for the use of technology have evolved from read-and-write-only access to an interactive, collaborative environment transforming teaching and learning (Cormode & Krishnamurthy, 2008). One application fairly new in the area of technology that has captured the attention of millions of users and transformed how we communicate and interact with the world around us is social media (Ranieri, Manca, & Fini, 2012).

Social media burst onto the scene over a decade ago, but its saturation into the instructional arena has been far more recent (Razak, Saeed, & Ahmad , 2013). As this global

phenomenon spread, social media began to encroach its way into the educational arena due to the interactive learning applications and promises of engagement from today's digital learners. Today as the use of social media continues to increase, teachers are embracing social media for many more purposes other than delivering content (Ranieri, Manca, & Fini, 2012).   Social media is now being used by teachers as a means to improve educational pedagogy and instructional strategies in an effort to improve student achievement.

Informal Learning

Informal learning is "at the heart of adult education because of its learner-centered focus" (Marsick & Watkins, 2001, p.25) and according to McLoughlin and Lee (2007) has become a hallmark of the 21st-century lifestyle in virtually every profession and walk of life.   Marsick & Watkins (2001) state that informal learning is often incidental and usually takes place outside of a formal or structured learning environment. Dabbagh & Kitsantas (2012) elaborate by adding, for most adults, this type of learning often takes place outside of formal educational contexts because individuals are continuously seeking out information to solve problems, answer questions, or to satisfy curiosity regarding the world around them. Cain & Policastri (2011) note that informal learning can often be more engaging because it lacks the constraints of time often associated with the traditional learning environment. Marsick and Watkins (2001) propose that informal and incidental learning can transpire when people want to learn, are motivated to learn, and have the opportunity to learn. Furthermore, Livingstone (2001) adds this type of learning is so embedded in our everyday lives that it often goes unrecognized and suggests that most people would far underestimate the amount and degree of learning that transpires during these times because it is simply not apparent to the learner that learning is actually taking place.

Richter, Kunter, Klusmann, Ludtke, & Baumert (2011) note that there are various kinds of informal learning opportunities that could be utilized by teachers for professional development, including peer-to-peer collaboration, self-directed readings, casual interactions with colleagues, mentor observations, and even trial-and-error. Such approaches as these offer teachers an abundance of learning opportunities that could be difficult to come by in formalized settings (Dabbagh & Kitsantas, 2012). Furthermore, Berg & Chyung (2008) note that opportunities such as these encounters are essential because "80 percent of workplace learning occurs through informal means" (p. 230). Fortunately today, the Internet has opened doors that permeate geographical lines supplying teachers with a world-wide workplace of colleagues and resources. Khalid, Joyes, Ellison, & Karim (2013) study revealed that informal workplace learning can be achieved through online collaboration and sharing. Khalid et al. (2013) elaborate by adding this type of global workplace informal learning allows teachers assistance with implementing skills that they have learned in formal settings.

For many of today's adult learners, the Internet has become an essential tool in a quest to acquire knowledge and expand the opportunities for informal and incidental learning (Marsick & Watkins, 2001). The interaction capabilities that Web 2.0 has afforded have offered a learning platform in which Selwyn (2007) states has led to enhanced learning outcomes. According to Comas-Quinn, Mardomingo, & Valentine, (2009) these advanced new technological tools have not only increased our access to information, but are also facilitating informal learning opportunities. To investigate if mobile devices owners are likely to participate in informal learning activities, Clough, Jones, McAndrew, & Scanlon (2008) recruited participants for a web-based survey through web-forums from which members shared a specific interest in mobile devices. The survey consisted of both quantitative and qualitative questions. The quantitative

items consisted of demographic information and questions regarding mobile devices and social media usage using Likert scaled questions. Participants were also asked to provide qualitative information regarding mobile device usage in an effort to provide greater insight into the phenomenon. Based on the responses of 154 collected surveys, Clough et al. (2008) concluded that the participants not only develop informal learning interests as a result of owning a mobile device due to the ease and convenience, the participants were able to convert opportunistic moments into informal learning occurrences as a result of social media usage on their mobile device.

While learning opportunities using these new and advanced technologies was once focused on the younger generation, there is evidence to support the rise of learning opportunities using social media with all age levels (Dabbagh & Kitsantas, 2012; Helpser & Eynon, 2010). Interestingly, Berg & Chyung (2008) revealed as "age increased so did the tendency to learn by searching the web" (p.238). However, Dabbagh & Kitsantas (2012) noted due to its popularity and appeal, college students have been embracing social media more and more for informal learning experiences as well. However, Selwyn (2007) contents there is evidence to support how social media is playing an integral and exciting part of learning, especially informal learning, for learners of all ages.

As copious amounts of learners continue to embrace the advances of technology and actively connect with social media sources regularly (Neilson, 2012), there is no surprise that social media is increasingly being utilized more and more every day by all age levels as an environment for informal learning to occur (Dabbagh & Kitsantas, 2012). Due to increasing expectations of teachers and rigorous assessments, new learning and professional development needs have occurred, "learning needs that are often met by engaging in informal learning"

available through today's advanced technologies (Lohman, 2006, p. 142).   This study

investigated if using social media as an informal learning platform to obtain professional

developmental knowledge was in fact a viable method for teachers to improve their knowledge

and skills and if teachers.

Online Learning

Since its inception in 1993 when Graziadie delivered a classroom lecture online, using

the Internet for online learning has continued to draw large numbers of consumers every year

(Wang, Shannon, & Ross, 2013). According to Allen & Seaman (2011), over 6.1 million adults

were enrolled in online classes during 2010 and almost "thirty percent of higher education

students now take at least one class online" (p. 2).   In fact, Shin & Lee (2009) claim that over 70

percent of all colleges are now offering some type of online learning.

Anderson (2008) defines online learning as:

the use of the Internet to access learning materials; to interact with content, instructors,

and other learners; and to obtain support during the learning process in order to acquire

knowledge, to construct personal meaning and to grow from the learning experience (p.

5).

Online learning has grown in popularity over the past decade due to the flexibility and

convenience that it affords the learner (Cornelius, Gordon, & Ackland, 2011; Heath & White,

2013; Palloff & Pratt, 2001). For most adult learners, the allure of online learning stems from

the complexity of everyday life and the desire to be an independent learner (Allen & Seaman,

2011; Herbold, 2012). According to Herbold (2012) adult learners "prefer making their own

choices" (p.118) regarding their learning needs, as well as, times for their learning to occur

amidst a hectic schedule. Herbold's (2012) study found that over 62% of the online learners

surveyed found the ability to select one's own learning activities as an essential component not only for their success, but as an essential component for the desire to seek out online learning opportunities. In addition, Levenberg & Caspi (2010) revealed that online learners perceived their learning higher than their counterparts in the same class that was given in the traditional face-to-face method.

Knowles, Holton, & Swanson (2005) succinctly summarize the adult learner's learning needs with four words: "time, place, style, and pace" (p.40). Furthermore, Knowles, Holton, & Swanson (2005) describe an adult learner as someone who is "motivated to learn as they experience needs and interests that only learning will satisfy" (p. 39). Because most online learners are volunteering to seek knowledge in this manner, Herbold (2012) and Wang, Shannon, & Ross (2013) largely attribute online learner's success with the fact that online learners are self-regulated over their learning needs. However, Wang, Shannon, & Ross (2013) also indicated that previous online learning experience is a positive predicator of online learning success.

Many studies have documented the positive effects that online learning have had for adult learners (Allen & Seaman, 2011; Herbold, 2012; Wang, Shannon, & Ross, 2013; Ziegler, Paulus, Woodside, 2014). Despite the documented studies of the benefits of online learning, research regarding the use of current online learning environments for teachers to strengthen their pedagogical knowledge and obtain additional knowledge is an area that has been underexplored (Aydin, 2012; Masters, de Kramer, O'Dwyer, Dash, & Russell, 2010; Ryan, Margo, & Sharp, 2011). In addition, even though online learning appears to be a dynamic solution to time and geographical challenges, Shin & Lee (2009) stated online learning opportunities are ultimately poor substitutes for quality instruction that learners would receive in a traditional classroom setting.

As with most things, along with the positive aspects, online learning has also received negative criticism due to the challenges that some online learners encounter. Chen, Pedersen, & Murphy (2011) noted some learners chose online learning in order to avoid the perceived rigors of the traditional classroom. Also due to the fact that online learning requires a great deal of self-regulation and discipline, some online learners set themselves up for failure from the beginning. According to Chen, Pedersen, & Murphy (2011) another challenge for online learners is information overload. Many online learners are simply not prepared for the volume of information that will be disseminated and sometimes are unable to process the information in a timely manner without having face-to-face interaction with the professor and/or peers (Hassan, Abiddin, & Yew, 2014). Hassan, Abiddin, & Yew (2014) elaborate further by noting many online environments allow for interaction; however some online students may miss out on the acquisition of key learning skills such as active listening, participating in articulate dialogue, and receiving immediate constructive feedback. Shin & Lee (2009) also claim that some colleges are taking the opportunity to capitalize on the popularity and demand of online learning opportunities to increase revenue at the expense of quality instruction. Chen, Perdersen, & Murphy (2011) elaborate by adding that many colleges and universities have made hast in taking advantage of the online learning movement without having completely solidified their online learning models. Many colleges simply take the content from the traditional face-to-face class and try to deliver it in the same method in an online version (Murphy, 2011).

Despite the shortcomings that some studies have exposed of some online learning models or opportunities, Shin & Lee (2009) state due to its appeal, flexibility, and ease of access, online learning appears to be a trend that is gaining in popularity and is here to stay. This study was seeking to strengthen the current body of research surrounding social media as an online learning

environment by exploring how and why kindergarten through twelfth grade teachers were using social media for professional development purposes.

Traditional Professional Development

Growing and learning as a teacher is critical for making effective instructional decisions to meet the dynamic needs of the 21st century student (Masters et al., 2010). In order for teachers to implement teaching practices that are current and researched based, lifelong learning through some form of professional development is crucial in preparing our students for success in today's modern society (Kabilan, Adlina, & Embi, 2011; Smith & Sivo, 2012; Vu, Cao, Vu, & Cepero, 2014). Because society is evolving just as rapidly as technology, the needs of our students are no longer the same as they have been in previous years (Vu, Cao, Vu, & Cepero, 2014). As the needs of the learners continue to become more and more diverse, staying current on teaching practices and content knowledge becomes vital for all teachers (Gess-Newsome, Blocher, Clark, Menasco, & Willis, 2003; Hao, 2010; Vu, et al., 2014). Vu et al. (2014) define professional development as "the process of learning and keeping up-to-date in one's area of expertise both for personal development and for career advancement" (p.121). Gess-Newsome et al. (2003) elaborated on the definition of professional development by adding that the goal of professional development is to assist teachers in expanding their knowledge base and facilitate their efforts of making effective instructional decisions that will have a positive effect on student achievement.

In the past, professional developmental training has consisted of attending an offsite training session. This conventional means of professional development is often "sit and listen" or "make and take" with teachers having little input into the design of activities presented (Francis-Poscente & Jacobsen, 2013; Ostashewki, Moisey, & Reid, 2011). This mass approach

is typically a "one size fits" all delivery method with little individualization for the attendees. According to Kabilan, Adlina, & Embi (2011) research clearly shows that these traditional or conventional forms of professional development are fragmented and have failed to yield significant carry over into classroom practices. Whether it be uncertainty on implementation or lack of time, more often than not teachers simply do not apply or employ new information from traditional forms of professional development. In addition, "increasing demands on teachers' time" and responsibilities discourage many teachers from leaving the classroom to attend professional development trainings for extended periods of time (Hao, 2010; Ostashewski, Moisey, & Reid, 2011).

Despite the reported need for teachers to improve their skills through professional development means, another factor contributing to the ineffectiveness of traditional professional methods has been budget cuts (Masters et al., 2010). Even though many school systems allocate monies for professional development, Hirsh & Killion (2009) claim that most systems only dedicate approximately two percent of their total budget for professional learning. In addition, Hirsh & Killion (2009) report that most schools rely on external expertise to provide professional development, which typically comes with substantial cost and only leaves room for a few professional development opportunities. In this age of accountability, policy makers and stakeholders have been requesting more substantial evidence of the benefits of their professional development dollars, actually creating a trend of a decrease in the amount of funds being allocated for professional development because of the unimpressive results that have resulted from traditional professional development trainings (Hirsh & Killion, 2009; Masters et al., 2010).

Due to the shortcomings of traditional professional development for many teachers, it was critical to investigate alternative methods of providing professional development trainings.

This study will add to the body of literature regarding professional development by examining how teachers are using social media for professional development.

Effective Professional Development

Despite published works on the pitfalls of traditional professional development, Public Law 107-110 under the No Child Left Behind Act stipulates that any local education agency that receives Title I, Part A, funds must provide their teachers with high-quality professional development leaving many schools with no option but to have their teachers attend professional development trainings (Borko, 2004; Dash, de Kramer, O'Dwyer, Masters, & Russell, 2012). Hochberg & Desimone (2010) report that pressure being placed on school leaders by policy makers to provide teachers with high quality professional development, has yielded teacher trainings that are inconsistent across school districts and unfortunately, has often produced unimpressive results with little to no carry over to the classroom.

Even though finding high quality professional development opportunities can be challenging, several studies have shown that attending high quality professional development is essential in improving teacher knowledge and teacher quality (Hochberg & Desimone, 2010; Jenkins & Agamba, 2013; Smith & Sivo, 2012). Masters et al. (2010) report that the "most effective method to improving student achievement is to improve teacher quality" through high quality professional development opportunities (p.356). Furthermore, professional development must foster some form of change in a teacher's teaching practice or knowledge that ultimately result in improved student achievement, otherwise the effort was in vain (Hochberg & Desimone, 2010; Jenkins & Agamba, 2013).

Kabilan, Adlina, & Embi (2011) and Hou (2012) posit that for professional development to have an impact on classroom practice it must be meaningful, and personalized to meet the

needs of the individual teacher. It is critical that professional development opportunities provided for teachers be presented in a manner that clearly demonstrates the relevance to the teacher in order for the teacher to make meaningful connections that will facilitate carry over to the classroom (Francis-Poscente & Jacobsen, 2013; Kabilan, Adlina, & Embi, 2011; Smith & Sivo, 2012). Desimone (2011) and Killion & Hirsh (2013) convey that effective professional development should be content specific for the individual teacher, or small group of teachers and not one size fits all approach. As Hochberg & Desimone (2010) discuss, teachers are like today's student; they come from diverse backgrounds, are at different stages in their career, and require varied levels of support with knowledge creation.

According to Mizell, Hord, Killion, & Hirsh (2011) and Jenkins & Agamba (2013) effective professional development should be sustainable, requiring more than attending a one or two day workshop. Desimone (2011) recommends a minimum of 20 hours of training over the course of a school year whereas Mizell, Hord, Killion, & Hirsh (2011) suggest that 50 or more hours of training is necessary to produce positive change in a teacher's instructional practice. However, to combat too much front loading or after the fact training, Hirsh & Killion (2009) recommend embedded training that occurs at least "three to four hours weekly" (p.12). Not only does sustainable professional development facilitate the creation of new knowledge, it builds connections with current pedagogy revealing strengths and weaknesses within one's own skill set in an effort to deepen self-reflection, making the learner an active receiver of information rather than a passive receiver (Francis-Poscente & Jacobsen, 2013).   Providing this embedded training over time facilitates the implementation of new teacher practices or pedagogy through continued support and affords the teacher time to experiment and experience success with new methods (Garet, Porter, Desimone, Birman, & Yoon, 2001).

Another aspect of effective professional development is being actively engaged in the learning process. Just like our students, when teachers are actively engaged in learning activities there is a greater chance of retention and carry over into instructional practices (Garet et al., 2001; Hochberg & Desimone, 2010; Jenkins & Agamba, 2013). Even though the act of knowledge construction is an active process, Burden (2010) suggests that active engagement can also refer to the social nature of learning. According to Hanraets, Hulesebosch, & De Laat (2011) "people use their networks as a social infrastructure to gain access to what it is they are looking for whether it is products/materials, knowledge, or resources" (p. 85). These social connections often require a level of participation on the member's part, establishing a rapport and line of communication. Being part of a community or network of professional social relations encourages members to share and provide feedback facilitating knowledge construction. Hirsh & Killion (2009), posit that "when teachers apply shared knowledge" students in those particular teachers' classrooms benefit not just from their own teacher's knowledge, but from the expertise of all of the teachers sharing within that teacher's social community or network (p.469).

In addition to the other components of effective professional development described, Borko, (2004), Garet at al., (2001), and Hochberg & Desimone (2010) emphasize the importance of teacher training being aligned with the current standards and assessments. Without having a clear focus on how to improve instructional practices regarding the standards and assessments, some teachers are unable to make connections that bridge content and instructional practice. Hochberg & Desimone (2010) report professional development that targets how to improve instructional strategies and content knowledge focused on the standards encourages teachers to think critically about how to improve student achievement on assessments.

Several studies have noted the importance of teachers attending professional development trainings to strengthen their skills and knowledge (Hochberg & Desimone, 2010; Jenkins & Agamba, 2013; Smith & Sivo, 2012). This study investigated how and why teachers are using social media as a means for professional development. This is important because the use of social media as a means for professional development can possibly be individualized to meet teachers' individualized needs, be content specific, sustainable, offer active engagement, and be focused on the standards, all characteristics of effective professional development (Borko, 2004; Desimone, 2011; Killion & Hirsh, 2013; Hou, 2012; Kabilan, Adlina, & Embi, 2011). Therefore, further investigation was warranted to understand if there were benefits for teachers in using social media as a means for professional development.

Online Professional Development

The capability of today's technology is now affording teachers the opportunity to seek out and share pedagogical knowledge over the internet (Holmes, 2013). The evolution of the Internet from Web 1.0 to the social interaction capabilities of Web 2.0 over the past decade have provided opportunities for professional development to occur online, no longer limiting teachers to time, space, and place (Ostashewski, Moisey, & Reid, 2011). Because Web 2.0 promotes interaction through the utilization of social media applications such as interactive websites, blogs, and wikis, participating in online professional development has become a persuasive and engaging part of the work environment for teachers (Hou, Chang, & Sung, 2010; Ostashewski, Moisey, & Reid, 2011). These new social media capabilities have provided an alternative means of accessing professional development that allow teachers the flexibility and independence regarding the type of information they are seeking and control over the space and place for the

training (Ostashewski, Moisey, & Reid, 2011). As Purcell, Heaps, Buchanan, & Friedrich (2013) revealed, 99% of the 2, 462 teachers they surveyed use the Internet on a regular basis "to do research or work for their job" (p. 5). This indicates what an integral role the Internet has become in teachers' personal and professional lives.

The convenient 24-hour availability of access to online resources with no additional expenses, have made online learning environments an attractive alternative replacing traditional professional development for many teachers (Reese, 2010). Because traditional forms of professional development can be costly for school systems, online professional development provides a cost efficient manner of obtaining professional development (Anderson, L. & Anderson, T., 2009; Masters et al., 2010). Online professional development requires no additional travel cost or large conference attendance fee (Reese, 2010). In addition, to being cost efficient, attending online professional development opportunities minimizes a teacher's time away from the classroom (Anderson, L. & Anderson, T., 2009; Masters et al., 2010).   However, one of the most appealing factors of online professional development for teachers is the flexibility it offers professionals with busy lives (Dash et al., 2012; Gess-Newsome et al., 2003; Reese, 2010; Russell, Cary, Kleiman, & Venable, 2009; Vu et al., 2014).

Another positive element of online professional development is the access and ability to share ideas with other teachers from all over the world (Reese, 2010). The advances in today's technology have afforded teachers the luxury of having access to other teachers that would have otherwise been unlikely before the connectivity capabilities of the Internet (Gess-Nesome et al. 2003). According to Smith & Sivo (2012) teachers can benefit from the opportunity to share and exchange information and construct knowledge in a collaborative online setting that the Internet provides. Francis-Poscente & Jacobsen (2013) revealed that participating in synchronous online

collaborative activities can promote learning and "collective knowledge building" through engagement and conversation with other participants (p. 336). Making and sharing these connections with other teachers around the world in collaborative online environments helps to bring different perspectives, an appreciation for other cultures, and construction of new knowledge otherwise impossible (Russell et al., 2009). In addition, having a common goal and sharing with like-minded professionals, online professional development can facilitate participants' engagement and "fostered conversations about fostering this kind of learning" for their own students (Francis-Poscente & Jacobsen, 2013, p. 336).

In addition to offering a flexible, cost efficient, collaborative learning environment, online professional development also offers a variety of modes for professional development delivery (Dash et al., 2012; Reese, 2010; Vu et al., 2014). Teachers can access different types of professional development formats such as podcasts, webinars, interactive websites, social media applications, videos and more, giving teachers a wealth of choices to choose from to meet their own individual learning needs (Russell et al., 2009). An additional benefit of having these professional development options online is the archiving ability (Anderson, L. & Anderson, T., 2009). Typically once a product is placed online, it is there to stay and can be accessed as often as one would like. Therefore, if a teacher finds information or material online worthy of sharing with colleagues, the information can be obtained first hand by the other teacher as well (Gess-Newsome et al., 2003).

There is clear evidence that teachers can find professional development opportunities online. However, currently there is a lack of evidence in the body of literature regarding the use of social media as a platform for online professional development for teachers (Greenhow, Robelia, & Hughes, 2009; Masters et al., 2010; Pereira, Baranauskas, & da Silva, 2013; Ryan,

Magro, & Sharp, 2011). This study will add to the body of literature regarding social media as a

potential environment for professional development in an online learning platform.

Web 2.0 and the Internet

Prior to the capabilities of the Web as we know it today, most users relied on the previous

version of the Web as a resource to read, seek information, or surf through websites (Cormode &

Krishnamurthy, 2008). Selwyn (2007) elaborates further describing the original version of the

Internet as applications with a "passive delivery of top-down content generated for a mass

audience and then broadcast from one-to-many" (p. 2).   Atta (2012) describes the previous

version of the Web, commonly referred to today as Web 1.0 to "differentiate between the two

manifestations of the Web" in this era, as mere static pages with the intent to disseminate

information (p. 625). The Web has transformed from mostly being utilized as a tool for

extracting information to an interactive environment that is equipped with new and improved

social capabilities (Greenhow, Robelia, & Hughes, 2009).   The unique networking capabilities

inherent to the Internet of today and its expansion, have contributed to why many people now

refer to the Internet as Web 2.0, a term that was coined around 2004 (Cormode &

Krishnamurthy, 2008).

An integral feature of Web 2.0 is the capability for interaction or connectivity among

people through networks. The opportunity for the connectivity through the use of social

software tools is a key feature of Web 2.0 which began emerging in late 2003 (Atta 2012; Boyd

& Ellison, 2008; Cormode& Krishnamurthy, 2008; Imperatore, 2009). This interactive feature

was not a feature of the original version of the Web. Examples of social software tools available

through Web 2.0 are blogs, wikis, and interactive web pages that make social connections visible

such as Facebook and My Space (Cormode & Krishnamurthy, 2008). These social software

tools provide teachers with a means to collaborate synchronously and asynchronously with teachers from virtually anywhere in the world at any hour of the day (Boyd & Ellison, 2008; LeNoue, Hall, & Eighmy, 2011). In addition to social software tools, there are a plethora of websites on the Internet created by teachers, for teachers with extensive amounts of resources and professional information regarding instructional practices, pedagogy, and teaching materials for almost any grade level and concentration area. These Internet resources are available for teachers to access and communicate with other teachers at their own leisure, making it an appealing method of collaboration with peers and colleagues to receive the most current information and techniques regarding the teaching profession (Imperatore, 2009).

The anonymity the Internet may provide is feature of online environments which may be appealing to teachers. This cloak of obscurity may offer an incentive for some teachers to seek out knowledge and collaborate with other teachers. According to Jurasaite-Harbison (2009) online environments may "prevent their professional identity from any possible damage" (p.304). Depending on the school culture, some teachers may feel more comfortable by seeking advice or ideas from other teachers with whom they have no personal or professional connection. According to Jurasaite-Harbison (2009) some school cultures force "teachers to try to conceal their uniqueness to fit in the general tone to avoid standing out, otherwise they risked being negatively judged" (p. 312). Other teachers may consult teacher online sources as a result of a competitive school culture. As a result of a competitive school culture, teachers may seek out knowledge or information online rather than seeming less capable in front of their peers or possibly even to appear more prepared, equipped, advanced, creative, or even more educated. Therefore, it was definitely worth investigating the extent to which kindergarten through twelfth grade public school teachers are relying on social media to obtain information or participant in

collaboration through Internet resources as a means to improve pedagogical knowledge and skills.

Social Media

One particular feature of Web 2.0 growing exponentially is social media. The convenience and allure of social media applications have prompted millions of users to integrate social media practices into their daily lives (Boyd & Ellison, 2008). Unlike other forms of electronic media, social media is dynamic and ever changing and has been evolving to meet the demands of the consumers (Harris & Rea, 2009). According to Mazman & Usluel (2010) the original purpose behind many popular social media applications was actually to share photos, personal information, videos, and conversation as a method of social interaction or communication. However, today the uses of social media applications have become as varied and are still evolving just as the users themselves.

The terms social media, social networks, social networking, social applications, and social software tools are often interchanged. However, because Merriam-Webster (2015) defines social media as any form of electronic communication; the term social media would be an umbrella from which all other terms related to social media would fall under. The term social media is often utilized as a representation for the term social networking, social networks, or social network sites. Boyd & Ellison (2008) define social network sites as:

Web-based service that allow individuals to 1) construct a public or semi-public profile within a bound system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system (p. 211).

The usage of these social network sites is called social networking. According to Boyd & Ellison (2008) what makes social networking so unique is not only the ability to connect and interact with strangers, but also that all of one's social connections are made visible and public based on the user's settings. In 2014, Duggan & Smith reported that over 73% of online adults were participating in the social networking phenomenon and employing at least two or more social networking sites for interaction and communication on a daily basis.

One of the most popular and widely used social networking sites is Facebook. First launched in 2004 by Harvard student Mark Zuckerberg and his college roommates, Facebook was initially designed to be utilized by students attending Harvard and then for the Ivy League colleges as a means for interaction and communication (Mezrich, 2010). While Facebook continues to be the most popular social networking site with over 1.3 billion registered users as of June 2014, it actually displayed little change in growth from 2013 to 2014 (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015). Duggan et al. (2015) reported that even though Facebook displayed minimal growth over the past year, social networking sites such as Twitter, Instagram, Pinterest, and Linkedin displayed a significant increase in users over the past two years. Social networking sites are only one of the possible platforms available for electronic communication, i.e. social media. Other forms of social media include but are not limited to blogs, wikis, podcasts, and virtual worlds.

Social media has a rather broad-based appeal mainly due to the varied functions available applications are able to provide (Smith, 2011). Poushter, Bell, & Oates (2015) and Smith (2011) report the primary utilization of social networking sites has been to socialize with friends and family by a reported 86% of social networking users. However, other applications of social networking sites have been employed such as gathering information by over 47% and utilization

for career and commerce by over 35% of social networking users (Poushter, Bell, & Oates, 2015). Another powerful application of social networking sites that has been employed recently and making significant growth is the use of social networking sites as a marketing tool (Berthon, Pitt, Plangger, & Shapiro, 2012). As a marketing tool, social media has proven to be highly effective due to its popularity, cost effectiveness, and world-wide access to consumers (Berthon et al., 2012).

Due to its popularity, ease of use, and convenience, alternative usages of social media are being implemented daily. This research investigated to what extent educators were using social media to obtain knowledge and skills for professional developmental purposes. This will add to the current body of research on how social media is being utilized, especially in the educational arena.

Social Media as a Learning Environment

Due to changes in our life styles and increasing demands on our time, teachers are turning to more convenient and flexible methods for acquiring knowledge (Anderson, L. & Anderson, T., 2009; Dash et al., 2012; Masters et al., 2010; Park, Heo, & Lee, 2011; Reese, 2010; Russell et al., 2009). Therefore, "participating in online knowledge construction and sharing" has become a necessity for teachers wanting to learn and grow with little time to do so through traditional professional development methodologies (Hou, Sung, & Chang, 2009, p. 325). According to Hao (2010), "blogging, has become a popular online activity across all ages, races, and countries" (p.136). Hou, Chang & Sung (2010), claim that blogs "can be used for teacher professional development to promote interaction among teachers" and as an efficient means to disseminate information due to the ease and convenience it affords (p. 963). Even though the function of a blog can vary, most blogs capitalize on an interactive ability to exchange

knowledge and synchronous collaborative communication options (Hou, Chang, & Sung, 2010; Park, Heo, & Lee, 2011). According to Avci & Askar (2012) the use of social media applications such as blogs and wikis have come to the forefront of social media software as a means for learning opportunities. A blog, "abbreviated from weblog" is essentially a web-based journal used as a means for posting and sharing information which usually appears in reverse chronological order and is typically the work of a single author (Atta, 2012, p.195). Most blogs are interactive allowing readers the opportunity to leave comments on the page (Atta, 2012; Hou, Sung, & Chang, 2009). A Wiki, which literally means "work together in Hawaiian" (Martinez & Jagannathan, 2010, p. 75) is different from a blog in that multiple users can work together synchronously to add, modify, or delete the contents of the webpage (Atta, 2012). Because of their collaborative nature and flexibility, blogs and wikis have become popular features of the social media applications of Web 2.0 technologies being embraced by teachers for online learning opportunities to exchange professional ideas and construct professional knowledge. (Avci & Askar, 2012).

"To understand the process of teachers' interaction" and knowledge construction while using blogs, Hou, Sung, & Chang, (2009), created a blog environment in which 470 teachers from Taiwan joined to form a teacher community (p.328). At the end of 85 days, the interactions among the teachers were analyzed using a coding system to determine the type of content that was being shared among the teachers using the blogs. According to Hou, Sung, & Chang (2009) 88% of the interactions that were transpiring among members were comprised of the sharing and comparing of professional information. These results reveal that when connected, teachers will share relevant information regarding their profession with one another online in an effort to continue growing as a teacher and improving student achievement.

In 2010, Hou, Chang, & Sung elaborated on their 2009 research regarding blogging and informal learning opportunities. Hou, Chang, & Sung (2010) developed a blog environment for 495 primary and secondary teachers from Taiwan. The teachers participated in interactive conversations with the other teacher blog members for 89 days. Analyses on the blog contents were conducted that "focused on the knowledge aspects of the teachers' discussions" (Hou, Chang, & Sung, 2010, p. 964). The discussions were analyzed using a coding schema to categorize the blog entry contents. The data revealed "that the teachers mostly shared descriptive, subject content-related knowledge" when they interacted online (Hou, Chang, & Sung, 2010, p. 965). Using the same participants and data from the blogging entries of the 495 teachers, Hou, Sung, & Chang (2009) performed a "lag sequential analysis to further examine the relationship between each discussion" thread on the blog entries (p. 103). This extension of the previous research indicated that behaviors exhibited in the discussion threads such as "proposing and clarifying questions and propose solutions or related information are closely connected" accounted for over 90% of the total behaviors that transpired between the teachers (p. 106). The data revealed that through online discussions between teachers via the blogging environment, teachers' problem solving skills improved.

Hao (2010) found similar results regarding using a blogging environment for learning. The study was comprised of 155 pre-service teachers from a university in Taiwan who were enrolled in a course integrated with the use of blogs throughout the semester (Hao, 2010). Data were collected and analyzed from interviews and surveys that focused on the participants' attitude toward blogs. According to Hao (2010), results from the study revealed more than 75% of the participants indicated that blogging facilitated their ability to reflect on the course content and exchange ideas with the other participants. The participants indicated the value of receiving

"feedback from their peers" through the synchronous form of collaboration and having the support of community with the same goal in mind were contributing factors for the success of the learning that transpired through their blogging activities (Hao, 2010).

Park, Heo, & Lee (2011) also conducted a study on how blogs were being used by teachers. For their study, Park, Heo, & Lee (2011) conducted an online survey that contained qualitative and quantitative items and, to which 70 Korean teachers responded. Because the interest of the study focused on informal learning that was transpiring during blog usage, Park, Heo, & Lee (2011) chose to exclude participants that were enrolled in formal educational programs in an effort to focus on informal learning opportunities. Based on their analysis of the surveys, Park, Heo, & Lee (2011) concluded that 61% of the participants indicated they had used blogs for the purpose of sharing professional information. In addition, 30% of the participants from the study revealed they had used blogs "for developing their own expertise" regarding their profession (Park, Heo, & Lee, 2011, p. 154). Furthermore, additional analysis revealed "the majority of the participants (90%) agreed they experienced some kind of learning through their blogging activities" (p.155).

Another advantage of utilizing blogging for learning that Luehmann & Tinelli (2008) found was the value teachers perceived in the opportunity to read and share elaborate feedback through open-ended responses authored and posted by participants on a blog designed and monitored by a college professor. Their study consisted of 15 secondary science teachers enrolled in a graduate level course at a university. Blog posts authored by the participants were analyzed for content using a coding schema and surveys were conducted regarding the participants value of blogging. According to Luehmann & Tinelli (2008), analysis of the blog contents revealed the interactive communication in the blog environment provided facilitated

learning opportunities among the participants. In addition, 80% of participants in the study

revealed they valued the blogging experience with like-minded professionals and valued the

support from the other blogging community members (Luehmann & Tinelli, 2008).

Disadvantages of Social Media Usage

While there is research to support the advantages of using social media such as the ease,

convenience, flexibility, and cost effectiveness as means of communication between parties,

according to Erjavec (2013) and Huffman (2013), there are disadvantages to using social media

as well. Livingstone & Brake (2010) succinctly report that new opportunities with these

advanced technologies such as social media also ring forth new risks that must be investigated.

Huffman (2013) added that the same benefits that can be derived from using social media can

quickly turn into a determent if left unaddressed. Friesen & Lowe (2011) noted that due to the

fact that social media was not originally developed as an educational tool it lacks a number of

critical components necessary for the creation of a true learning community.

Receiving considerable attention among the opponents of social media in education is the

concern of declining grammar skills or conventional communication. Thurlow (2006) contends

that the use of Internet for communication and education has essentially prompted many users to

participate in what apparently is a new form of shorthand online language. Grosseck &

Holotescu (2012) refer to this online shorthand as artificial communication because it often lacks

the sincerity and expression as traditional oral or written communication. Herring (2007) reports

this "netspeak the use of abbreviated and nonstandard spelling" are giving rise to a decay in

conventional language skills of our youth (p. 5). While there is much concern over the decline of

standardized or conventional grammar while communicating through technology, Thurlow

(2006) contends research and policies must work expeditiously to evolve as rapidly as these

advanced technologies in an effort to thoroughly understand and manage the potential effects on our language skills.

Certainly one of the most concerning perceived disadvantages of social media usage is the possibilities of harmful effects. Livingstone & Brake (2010) note that participation in online communication activities has the potential to put people from all age levels in touch with harmful contact or content. According to Grosseck & Holotescu (2012) and Huffman (2013) examples of the potential harmful effects that could transpire as a result of social media usage are: 1) cyberbullying, 2) loss of privacy, 3) security breaches, and 4) exposure to inappropriate content.

Interestingly though, adults are not the only persons with apprehensions surrounding social media usage in the educational arena. Jones, Backey, Fitzgibbon, & Chew (2010) found through a series of interviews with college students that as a result of negative feelings regarding their traditional educational experience, many college students were unwilling to combine the platforms. Furthermore, Jones et al. (2010) study revealed many college students wanted to maintain separate environments for learning and socialization. Another growing concern from college students revealed in Jones et al. (2010) study was the reluctance to engage in academic discourse on social networking sites for fear of plagiarism concerns. Jones et al. (2010) noted that higher education's emphasis on academic conduct has left many students to fear disciplinary action in cases of inadequate or improper citation. In addition, college students in Jones et al. (2010) study also revealed that participation in classes through social media platforms required assignments that were both time consuming and cumbersome. For these reasons, some college instructors have sometimes had a difficult time convincing students to participate in social learning forums, even when there is a grade involved (Jones et al., 2010).

Despite the growing awareness of potential harmful effects of social media usage, its popularity continues to gain momentum. As with most topics of interest, advantages and disadvantages can be found depending on the lens of observation. This study also investigated whether the participants believed there were any advantages or disadvantages for using social media for professional development purposes.

Summary

Learning through informal means "is at the heart of adult education" because the quest to seek knowledge to improve one's craft or profession is important for many adults (Marsick & Watkins, 2001). Informal learning occurs in many different environments. Due to advances in today's technologies, many teachers are able to use the Internet as a platform for informal learning opportunities through its resources and connectivity. In addition, the social capabilities of Web 2.0 have yielded opportunities for teachers to interact with other teachers using social media sites through synchronous and asynchronous means. With their convenience and ease of use, informal learning environments have become popular among teachers as a means of professional development and informal learning through the sharing and receiving of knowledge by interacting with others.

Because professional development is a crucial component of evolving as a teacher (Masters et al., 2010), understanding teachers' preferences for participating in professional development activities could be valuable information for school and district leaders in an effort to streamline access to quality training in a highly efficient manner. Utilizing social media as a means for professional development could be an extremely cost efficient method for disseminating information to teachers. In addition, with numerous studies available that illuminate the shortcomings of traditional professional development trainings, it was necessary to

seek out alternative means of professional development that will provide teachers with quality professional development in a manner that is self-directed, productive, and beneficial is important.

The act of accessing social media sources to seek out additional information and resources is completely self-motivated. Therefore, control over one's own learning could potentially be a contributing factor in improving student achievement and teacher motivation. If teachers are able to access quality information they feel can benefit their students' academic achievement, connecting to other teachers social media sites could again be a highly efficient means of improving student achievement through improving teacher pedagogy.

Social media is a global phenomenon that is revolutionizing many aspects of our lives, especially in teaching and learning. However, in the current body of research there are few studies available that address the role of social media in professional development for teachers (Aydin, 2012; Razak, Saeed, & Ahmad, 2013; Ryan, Magro, & Sharp, 2011). This study attempts to add to the body of research regarding teachers' usage of social media for professional development purposes. A large portion in the current body of research on social media within the field of education has focused on the use of social media for teachers to deliver content (Al-Mukhaini, Al-Qayoudhi, & Al-Badi, 2014; Avci & Askar, 2012; Cain & Policastri, 2011; Heo & Lee, 2013; Jong, Lai, Hsia, Lin, & Liao, 2014; Shim & Guo, 2009; Sie, Pataraia, Boursinou, Rajagopal, Margaryan, Falconer, Bitter-Rijpkema, Littlejohn, & Sloep, 2013). Furthermore, current studies available on the role of social media for professional development purposes have focused specifically on Facebook and blogging (Avci & Askar, 2012; Hao, 2010; Huang, Y., Jeng, & Huang, T., 2009; Jong et al., 2014). This study will not focus on one specific social media application as many studies have previously. This study investigated two critical aspects

that previous studies have not, how teachers were using social media for professional development purposes and why teachers were using social media for professional development purposes. Understanding how and why teachers are using social media for professional development purposes could possibly assist school leaders in making decisions regarding the professional development needs of teachers. Because great sums of money are invested each year on professional development trainings for teachers, this study was definitely warranted and critical in the educational arena.

CHAPTER 3

METHODOLGY

Social media is a trending topic in the world today. Social media usage was once limited to our personal lives. However, now it has now traversed from personal usage to become an integral part of our professional lives as well (Comas-Quinn, Mardomingo, & Valentine, 2009). According to Erstad (2012), not only are people using these new technologies for many different purposes than originally intended, but they have opened doors to more resources, information, and networking capabilities than ever before. Clough, Jones, & Scanlon (2008) go on to elaborate that social media users are now seizing the opportunities afforded by these new technologies to pursue professional knowledge.

Purpose

The purpose of this mixed methods study was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development purposes. Because a large portion of the body of literature on teachers and social media focused on the use of social media in higher education, there was a need for a scholarly study to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development (Al-Mukhaini, Al-Qayoudhi, & Al-Badi, 2014; Avci & Askar, 2012; Cain & Policastri, 2011; Heo & Lee, 2013; Jong, Lai, Hsia, Lin, & Liao, 2014; Shim & Guo, 2009; Sie, Pataraia, Boursinou, Rajagopal, Margaryan, Falconer, Bitter-Rijpkema, Littlejohn, & Sloep, 2013). In addition, a considerable amount of the literature surrounding social media has also focused on how teachers were utilizing it to deliver content

(Al-Mukhaini, Al-Qayoudhi, & Al-Badi, 2014; Avci & Askar, 2012; Cain & Policastri, 2011;

Heo & Lee, 2013; Jong, Lai, Hsia, Lin, & Liao, 2014; Shim & Guo, 2009; Sie, Pataraia,

Boursinou, Rajagopal, Margaryan, Falconer, Bitter-Rijpkema, Littlejohn, & Sloep, 2013). This

study sought to gain insight into the ways teachers were using social media for professional

development. In addition, this study investigated possible reasons for teachers' use of social

media for professional development purposes, as well as which social media applications were

used for professional development and the frequency of usage.   This chapter includes discussion

of the design of the study, a description of the population included in the study, an explanation of

the research instruments, and a description of procedures that were used to collect and analyze

the data.

Problem Statement

One of the problems associated with this phenomenon is the lack of time that teachers have

to attend traditional face-to-face professional development trainings (Lohman, 2006). Because

teachers have limited time off from supervisory duties during a school day, teachers are now

among professionals taking advantage of resources that social media has to offer (Purrcell et al.,

2013). Another problem associated with this occurrence is the lackluster results that traditional

professional development opportunities have provided teachers in the past. As a result of

uninspiring professional development trainings, turning to social media to satisfy a quest for

additional pedagogical knowledge is emerging in the field of education (Bodell & Hook, 2011).

Finally, with the use of social media for professional development, potential hazards are bound

to exist. The fact that anyone that has access to the Internet can post information regardless of

authenticity creates the possibility of inaccurate information being available to access (Lucassen

et al., 2013). Therefore, investigation is warranted to determine how teachers are assessing the

credibility of the information being accessed through social media sources.

Research Questions

Because the use of social media within the field of education is fairly recent, a scholarly study was needed to investigate how and why kindergarten through twelfth grade teachers were using social media for professional development purposes (Razak, Saeed, & Ahmad, 2013). The research questions for this study included:

1. How do kindergarten through twelfth grade public school teachers use social media for professional development?

2. Why are kindergarten through twelfth grade public school teachers using social media for professional development?

3. What type of social media applications are kindergarten through twelfth grade public school teachers using for professional development?

4. How do teachers assess the credibility of the information found in social media sources?

A grounded theory method was utilized for the design of this study because the focus was on the process of generating theory based on themes emerging from the data collected from a sample of teachers immersed in the phenomenon rather than to test theory or hypotheses (Patton, 2002).

Research Design

This study was conducted as a mixed methods study in an effort to fully investigate the research questions. According to Creswell (2015), "an advantage of this design is that it combines the advantages from each form of data" (p. 544). In particular, this study employed a descriptive exploratory design involving quantitative and qualitative data collection in an attempt to explain how teachers were using social media for professional development as well as why teachers were using social media for professional development. The researcher chose to utilize

qualitative data to allow participants the opportunity to elaborate on their experiences with social media rather than being limited to predetermined answer choices. Furthermore, the researcher also chose to collect quantitative data to perform correlation analyses to reveal relationships among the demographic data collected in an effort to better understand the participants and their reasons for using social media for professional development.

Population

The prevalent use of social media was first apparent with college students (Aydin, 2012). Currently a large portion of the literature available on social media usage has focused on how it is being used in the higher education setting (Al-Mukhaini, Al-Qayoudhi, & Al-Badi, 2014; Avci & Askar, 2012; Heo & Lee, 2013). Therefore, due to the void in the literature, the researcher chose to purposefully conduct this study with public school teachers teaching in kindergarten through twelfth grades.

The population chosen for this study was the teachers in a rural school district in the southeastern part of the United States (U.S.). This school district was chosen because it is a research friendly school district and the researcher has access to the population. The school district has five elementary schools, one middle school, and one high school. For this study, 140 teachers from the school district chosen as the research site were invited to participate in the research study by receiving an informed consent form (Appendix A) and social media questionnaire in their teachers' mailbox located at their respective schools. As Creswell (2015) recommends, the researcher chose to prenotify the teachers as to the upcoming distribution of the social media questionnaire during the school district's annual Institute Day in August of 2015. There the researcher spoke with all teachers in attendance regarding the purpose of the study, reported how all data would be kept confidential, and how data would be reported.

Participants

The researcher invited 140 teachers to participant in this study by placing an informed consent form and social media questionnaire in all teacher mailboxes located at their schools. Of the 140 social media questionnaires distributed, 78 informed consent forms and completed questionnaires were returned to the sealed collection box located at their research site for a 56% return rate. Therefore, the participants in this study were 78 kindergarten through twelfth grade public school teachers.

After the researcher sorted, grouped, and analyzed the data from the social media questionnaires, the researcher separated the participants' questionnaire responses into three categories; heavy user (daily usage response), moderate user (weekly usage response), and light social media user (monthly and yearly usage response). Five participants from each of the three categories of social media users were randomly selected for participation in the one-on-one interviews regarding their usage of social media for professional development. The researcher conducted a total of 15 individual interviews. After conducting the individual interviews, two additional participants per social media usage category were randomly selected from the original pool of 78 participants to participate in a focus group.

Response Rate

As Creswell (2015) notes, the higher the return rate the more confidence the researcher will have in creating a stronger claim in answering the research questions for a study. Creswell (2015) also notes that, "leading educational journals report a response rate of 50% or better" (p. 393). Because 78 informed consent forms and social media questionnaires were returned completed to the researcher out of the 140 that were distributed, that makes the return rate for this study 56%.

Instrumentation

Because several previous studies regarding social media in the educational arena have focused on how teachers are using social media to deliver content (Avci & Askar, 2012; Cain & Polcastri, 2011; Huang, T., Jeng, & Huang, T., 2009; Jong, Lai, Hsia, Lin, & Liao, 2014) and communicate or collaborate with other teachers (Gazi, Aksal, & Oztug, 2012; Hou, Sung, & Chang, 2009), questions for the questionnaire (Appendix B), one-on-one interviews (Appendix C), and the focus group (Appendix D) regarding how and why teachers were using social media for professional development were developed by the researcher to provide insight and clarity surrounding the central phenomenon for this study.   In an effort to ensure construct validity, data triangulation was utilized to provide multiple measures of the same phenomenon. Quantitative data were also collected to perform correlation analye. In addition, in order to address and ensure reliability concerns, all steps involved in the interviews and focus group were operationalized to the highest extent by establishing and following an interview protocol (Appendix C) and focus group protocol (Appendix D) (Yin, 2009).

In preparation for the study and in an effort to establish reliability for this study, the researcher conducted a pilot study in June 2014 via an online survey for teachers regarding their social media usage. An email invitation containing the survey was sent to approximately 80 public school teachers in the school district in which the researcher currently worked. The online survey was conducted through Survey Monkey. It consisted of ten questions regarding teacher usage of social media. Basic statistics were utilized to analyze the 56 responses. Based on the 56 responses, the researcher revised the social media usage questions to focus more on the research questions needed for this study. The revised social media questionnaire for teachers was comprised of 16 questions designed to be open and closed ended to better understand and

investigate how and why kindergarten through twelfth grade teachers are using social media for professional developmental purposes.

In order to gather rich, detailed, and useful data for this study and establish reliability, open ended questions for the teacher questionnaire were revised based on the pilot study questions and recrafted in an effort to maximize the opportunity for participants to respond in their own words (Patton, 2002). The revised questionnaire used to study teacher social media usage for professional developmental purposes contains 16 questions (Appendix B). Six of the questions on the social media questionnaire were demographic questions providing the researcher data necessary to make basic comparisons of the participants: years of experience, gender, grade level taught, teaching position, and highest degree obtained. These quantitative data were analyzed to generate frequency tables displaying data from each of the demographic categories. The remaining questions on the social media teacher questionnaire investigated whether or not the participant used social media for job related purposes; social media applications the participant utilized for professional development; methods in which the participant may have had used social media for professional development; reasons why the participant may have used social media for professional development; frequency of social media usage for professional development; how social media applications for professional developmental purposes were obtained or found; the participants' procedure for assessing credibility and/or validity of the social media source or content; whether or not the participants collaborated with other teachers online through social media applications; and how the participants use information being obtained from social media sources. The participants recorded their responses to the open and closed ended questions on the social media questionnaire. Upon completion of the questionnaire, the participants placed the informed

consent form and social media questionnaire in separated envelopes and then placed them into in

a sealed collection box, which the researcher provided at each research site. The researcher

collected the sealed boxes containing the completed informed consent forms and social media

questionnaires and maintained them in a secure filing cabinet when they were not being utilized

for analysis. In an effort to maintain integrity of the study, the researcher gave each participant a

coordinating numbered pair consisting of the informed consent form and social media

questionnaire. At the conclusion of the session, the researcher verified that each consent form

was provided from the participant by matching the informed consent forms and the social media

questionnaires based on the coordinating numbers located at the top right hand corner of each

document.

The questions that constituted the interview protocol for the one-on-one interviews

(Appendix C) were crafted from the June 2014 online pilot study questions and were developed

in an effort to establish reliability and maximize the opportunity for the participants to expand

upon their responses supplied on the initial social media usage questionnaire that were dispersed

during a collective assembly at each of the seven research sites. Questions during the one-on-

one interviews probed deeper into teacher social media usage for professional developmental

purposes investigating nuances regarding their professional development. The one-on-one

teacher interview questions delved further into: whether information the participant had obtained

from social media sources had altered his/her pedagogical knowledge and/or instructional

practices, inquired about perceived, if any, benefits to using social media for professional

developmental purposes; obtained the participants' views concerning effective professional

development, inquired about their recent experiences with face to face professional development,

and collected the participants' views concerning effective methods of collaboration. In addition,

probing questions were asked when necessary to prompt further elaboration of the participants'

responses. The interviews were audio recorded for later transcription and analysis. Data from

the one-on-one interviews were compared with data from the social media teacher questionnaire

in an effort to determine similarities and pattern trends.

Similar to the purpose of the one-on-one interview questions, the purpose of the focus

group questions was to obtain insight and further clarification into the reasons how and why

kindergarten through twelfth grade teachers were using social media for professional

developmental purposes. Focus group members were randomly selected based on their social

media usage response indicated on their social media questionnaire. Focus group questions also

served to stimulate and facilitate participants' verbalization about their social media usage for

professional developmental purposes to share and articulate their reasons for how and why they

are using social media for the group. The focus group protocol (Appendix D) was designed by

the researcher to facilitate a productive meeting. In addition, probing questions were

implemented when necessary to facilitate elaboration of the participants' responses for further

clarification. The focus group session was audio recorded for later transcription and analysis.

Data from the focus group were compared with data from the social media questionnaire and

one-on-one teacher interviews in an effort to determine similarities and pattern trends.

Validity

In an effort to ensure construct validity, a triangulation method of data collection was

utilized to provide multiple measures of the same phenomenon (Patton, 2002). For this study, a

questionnaire was given to participants that consisted of open and closed ended questions that

gathered details from the participants' perspectives on their usage of social media for

professional development, as well as gather demographic data to perform basic statistical

analysis which was used to generate frequency tables and determine if there were any

correlations. Fifteen individual interviews were conducted with participants to gather further

clarity on the same phenomenon, as well as a focus group consisting of six participants. The

researcher also presented the findings to the doctoral committee chair for review and

confirmation of the interpretation of the findings.

Reliability

Before the questionnaire for this study was finalized, a pilot study was conducted in June

2014 in an effort to guide the researcher with developing questions for the social media

questionnaire that would accurately investigate the intended purpose of this study. The pilot

study was conducted through an online survey in June 2014 using SurveyMonkey. Participants

were emailed a link for the survey and asked to complete the survey. Approximately 55

participants completed the online survey. After results were obtained and reviewed, several

experts were consulted to provide feedback on the survey questions. The results from the pilot

study and feedback from the experts were used to craft revised questions for the social media

questionnaire for this study.   Once the questions were revised, the researcher randomly selected

10 participants from the original pool of the June 2014 pilot study's 56 participants to resurvey in

an effort to determine if the instrument was addressing the research questions for this study.

Procedure

After securing permission for the study from the researcher's doctoral committee,

Columbus State University's Institutional Review Board, the school system's superintendent,

and the seven schools' principals chosen as the research sites, the researcher was able to speak to

all of the teachers within the school district at the professional development days in August 2015.

As Creswell (2015) notes, one method to encourage a high response rate "is to prenotify the participants that they will receive a questionnaire" (p. 393). Therefore, the researcher met with the teachers from the school district to explain the purpose of the study, ask volunteers to participate in the study, discuss how the information provided on the social media questionnaire (Appendix B) was to be kept confidential by having the participants place completed consent forms and questionnaires in a sealed box provided and maintained under lock and key with no names ever being reported, and discuss how the data would be analyzed and reported. In addition, the researcher expressed thanks for completing the questionnaire and asked for volunteers to participate in subsequent one-on-one interviews or focus group regarding their social media usage for professional development purposes by asking them to supply their email addresses in the space provided on the consent form (Appendix A). The researcher asked the participants to place the items, in separately sealed envelopes provided (one for the questionnaire and one for the consent form) and then into a sealed collection box left by the researcher at the research site. The informed consent form and the social media usage questionnaire were dispersed to each participant in paired sets containing coordinating numbers so that the researcher was able to pair each participant's informed consent form with their social media usage questionnaire for data analysis. Then the researcher placed the informed consent forms and social media questionnaires in the teacher mailboxes located at the seven research sites. The participants were given two weeks to complete the social media questionnaire and consent form. The researcher returned in two weeks and collected the sealed boxes containing the completed consent forms and social media questionnaires.

Upon collection of the initial informed consent forms and social media usage questionnaires, the researcher first went through and matched completed informed consent forms

with completed social media usage questionnaires by matching the coordinating numbers located on the top right hand corner of each set of documents. The researcher disregarded any questionnaires that were not accompanied with a signed informed consent form. Then the researcher sorted, grouped, and analyzed data supplied on the social media usage questionnaires. The quantitative data collected was compiled into an Excel spreadsheet in an effort to efficiently organize the data for analysis. Using the qualitative data, the researcher organized, sorted, and grouped responses based on patterns from the responses. The researcher then began to assign codes to patterns that emerged from the responses.

The next step in the study was to select the individual interview participants. After sorting the questionnaires based on the frequency of their social media usage, the researcher randomly selected 15 participants (five from each social media usage category). The researcher contacted the interview participants through an email address which they had provided on their initial informed consent form. The primary purpose of the one-on-one interviews was for the researcher to gain further insight regarding teachers' social media usage for professional development purposes and for the researcher to ask further questions to allow the participants the opportunity to elaborate on answers. The researcher began by explaining the purpose of the study; obtained an informed consent form for participation in the one-on-one interview (Appendix C) to be audio recorded and explained how all information from the interview would remain confidential; how the data would be kept secure in a locked filing cabinet; how the data would be analyzed and reported; and how this study contributed to the field of education. Then the researcher followed the interview protocol (Appendix C) containing open ended and probing questions. The interviews were audio recorded and the recordings were later transcribed so that the researcher could analyze the data.

For the next phase of data collection, six participants were randomly selected (two from each social media usage category) from the original pool of 78 to participate in a focus group that was held at a time convenient for all of the volunteer participants. Participants were asked to volunteer for the focus group by indicating their desire to participate on the initial informed consent form. The researcher contacted the participants to establish a convenient time to meet for all participants and set a date, time, and a meeting location to conduct the focus group. The purpose of the focus group was to conduct an interview with more than one individual at a time, increasing confidence in the patterns that emerged from the data (Patton, 2002). Participating in the focus group allowed the other participants to hear each other's point of view or perspective on the central phenomenon and elaborate on others' responses or revise input based on responses being shared (Patton, 2002). During the focus group, the researcher explained the purpose of the study; obtained a consent form for participation in the focus group (Appendix F) and for permission to be audio recorded; explained how all information from the focus group would remain confidential by not revealing any participant names on any report or findings in the study; explained how the data would be kept in a locked filing cabinet; discussed how the data would be reported; and how this study contributed to the field of education. Then the researcher conducted the focus group using the focus group protocol (Appendix D) which contained open ended and probing questions regarding their social media usage for professional development. The focus group was audio recorded so that the proceedings could be transcribed at a later time for analysis.

Timeline for Procedure

Because this research was being conducted as a dissertation, the initial approval for this study came from the researcher's doctoral committee. The researcher's proposal was

successfully defended before the doctoral committee and approved on June 3, 2015. Then an

application to conduct the study was submitted to the Institutional Review Board of the

University for Approval. After obtaining permission to conduct the study from the Institutional

Review Board of the university, approval to conduct research and access to the participants was

sought from the superintendent of the school system selected by the researcher. Finally, the

researcher visited each principal from the seven school sites to seek their permission as well.

See Table 1 for the timeline of the approval process.

Table 1

Timeline of Research Approval Process

Source of approval needed	Submittal Date
Dissertation proposal defense	May 2015
Institutional Review Board application approved	June 2015
School system superintendent approval	June 2015
Onsite principal approval	June 2015

Prior to the approval, the researcher planned and organized a timeline of data collection

and analysis. After consulting with the doctoral committee, the researcher decided to begin to

collect data using the social media questionnaire at the onset of a school year in August. The

schools chosen as the research site held a District Institute Day at which all employees are

present in August, 2015. After obtaining permission from the school district's superintendent,

the researcher discussed the purpose of the study and the procedures that would take place with

all of the school district's teachers on Institute Day. The researcher wanted the participants to be

able to become familiar with the research and researcher before the social media questionnaires

and informed consent forms would be placed in their teacher mailboxes located at their

respective schools. Once the approval process for the study had been completed, data collection

and analysis of the data began. See Table 2 for the timeline of data collection and analysis.

Table 2

Timeline of Data Collection and Analysis

Source of Data	Collection Date
Teacher social media questionnaires	August 2015
One-on-one interviews	September- October 2015
Focus group	October 2015
Recordings transcribed	September – October 2015
Data analysis	September 2015- December 2015
Findings reported	December 2015
Doctoral committee chair review of findings	January- February 2016
Dissertation revisions	February- March 2016
Doctoral committee review	March- April 2016
Dissertation defense	April 2016

Data Collection and Analysis

To strengthen the findings, data source triangulation was utilized to study the same

central phenomenon for this study (Patton, 2002). Data collection for this study included open

and closed ended questions on a questionnaire, one-on-one interviews, and responses from a

focus group representing kindergarten through twelfth grade public school teachers in a rural

county in the southeastern part of the U.S. Participants responded to open and closed ended questions regarding their social media usage for professional developmental purposes on the social media questionnaire (Appendix B). All proceedings from the one-on-one teacher interviews and focus group were audio recorded which was transcribed by the researcher at a later date so that the data could be analyzed. Data were collected from August 2015 until November 2015. The goal was to have volunteer teacher participants complete the social media questionnaire during the month of August 2015, conduct the one-on-one interviews with approximately 15 volunteer participants from September 2015 until October 2015, and conduct a focus group during the month of October 2015.

The social media questionnaire containing open and closed ended questions regarding demographics and social media usage for professional development purposes was distributed to 140 teachers within the school system. The researcher visited each of the seven schools within the school system and placed a questionnaire and informed consent form set in evident teacher mailboxes. Each set contained coordinating numbers so that the researcher would able to match social media questionnaires with informed consent forms for analysis once returned. After the participants completed the social media questionnaire and informed consent form, they were asked to then place them in separately sealed envelopes provided and to deposit them in a sealed collection box provided by the researcher at the research site. After all of the informed consent forms and questionnaires were collected, the researcher first paired coordinating questionnaires with informed consent forms. Any questionnaires that were not accompanied by an informed consent form were disregarded. The researcher then transferred the quantitative data into an Excel spreadsheet (spreadsheet software produced by Microsoft). Then using Excel statistical tools, an analysis of the descriptive statistics was performed in an effort to yield a summary of

the population. The researcher also used the software package Statistical Software for Social Science (SPSS) (version 22) to analyze the closed ended data obtained from the questionnaires to investigate the correlations among the demographic information obtained and frequency of social media usage reported, as well as frequency of social media applications being used. The primary goal of the social media questionnaire was to collect as many responses as possible about how and why teachers are using social media for professional development and investigate the commonalities and themes that emerged from the participants' responses. The researcher distributed 140 social media questionnaires and received a total of 78 completed questionnaires for a return rate of 56%.

The researcher conducted a total of 15 one-on-one interviews. The 15 interview participants were randomly selected based on their social media usage category as determined from the analysis of the data from item 11 on the social media questionnaire. Five participants per social media usage category, heavy, moderate, and light, were selected. The interview participants were contacted via their email addresses to schedule a date, time, and location for the interview. These one-on-one interviews lasted approximately thirty minutes to an hour and were audio recorded. The 15 participants were asked a series of predetermined open and closed-ended questions using the one-on-one interview protocol (Appendix C) regarding their social media usage for professional development purposes. Audio recordings from the one-on-one interviews were transcribed later by the researcher for analysis. The transcriptions were analyzed by assigning codes to patterns observed relative to the research questions. The assigned codes from the one-on-one interview transcriptions were carefully reviewed to identify similarities that signaled reoccurring themes or patterns among the interview data as well as data from the social media questionnaire (Patton, 2002).

A focus group consisting of six participants, two from each social media usage category (heavy, moderate, and light), was conducted to obtain "high quality data in a social context where people can consider their own views in the context of the views of others" (Patton, 2002, p. 386). The focus group participants were identified from the initial consent form on which volunteers had provided their email addresses to be contacted for participation in the focus group. Participants for the focus group were emailed an invitation and a mutual date, time, and location were agreed upon to conduct the focus group. The focus group lasted approximately an hour and was audio recorded. The participants were asked a given set of interview questions using an interview protocol (Appendix C) and probing questions when necessary (Creswell, 2015). The audio recordings of the focus groups were later transcribed for analysis. The transcriptions were analyzed by assigning codes based on emerging trends. The assigned codes of the focus group transcriptions were carefully reviewed to identify reoccurring themes or patterns among all of the data were collected (Patton, 2002).

After the researcher conducted the teacher questionnaires, one-on-one interviews, and focus group, the data were organized and carefully reviewed for initial understanding and then were reviewed again to determine the codes to be assigned to similar words and phrases that appeared in the transcripts (Creswell, 2015). According to Creswell (2015), "coding is the process of segmenting and labeling text to form descriptions and broad themes in the data" (p. 242). After assigning codes to particular words and phrases in the transcriptions, the researcher inductively analyzed the data to determine the themes and patterns that emerged (Creswell, 2015). The findings were reported in a narrative discussion in which the researcher summarized how and why kindergarten through twelfth grade public school teachers were using social media for professional development (Creswell, 2015).

Findings

Basic statistics were performed using the quantitative data which are reported in frequency tables in chapter four. Those tables include frequency of the demographics including number of years of teaching experience, gender, grade level taught, current teaching position, highest degree obtained, and social media applications used. In addition, the researcher used SPSS to perform correlation analyse using the demographic data, social media applications used, and frequency of social media usage. The correlation analyses are displayed in tables in chapter four as well.

The qualitative data obtained through open ended questions on the questionnaire, individual interviews, and the focus group were compiled into separate Excel spreadsheets. After compiling, the researcher reviewed the data to gain insight into the phenomenon, and then coded and analyzed for themes that emerged. The qualitative data are discussed in chapter four of this paper detailing the themes and patterns that emerged from the participants' responses.

Assumptions and Limitations

The first assumption of this study was that conducting a mixed methods study would provide the most insight into studying how and why kindergarten through twelfth grade public school teachers were using social media for professional development. The researcher assumed the use of open and closed ended questions on a questionnaire, one-on-one interviews, and focus group interviews, would yield rich data to assist the researcher with investigating themes and patterns that emerged from the data. The second assumption of this study was that the participants would answer the open and closed ended questions on the questionnaire honestly and that responses given during the one on one interviews and focus group would be honest, as well.

One limitation of the study was the inclusion of only kindergarten through twelfth grade public school teachers in one public school district. Because several previous studies focused on higher education teachers, a population of kindergarten through twelfth grade public school teachers were purposefully selected (Al-Mukhaini, Al-Qayoudhi, & Al-Badhi, 2014; Avci & Askar, 2012; Blankenship, 2011; Cain & Policastri, 2011; Jong et al., 2014). Therefore, the results of this study are not generalizable for private school teachers, teachers in higher education settings, or other K-12 teachers. A second limitation of this study is that it was conducted in a rural school system in the southeastern part of the U. S. The results of this study are not generalizable for teachers in other parts of the country or world. A third limitation of this study is the number of participants. The study included 78 participants. Because the use of social media is a global phenomenon, a more sizable number of participants may be needed to discover more reasons how and why teachers use social media for professional development.

Because the research is limited on how and why public school teachers were using social media for professional development, future research should be conducted to determine how and why teachers in higher education settings are using social media for professional development as well as in the private, K-12 school setting. In addition, future research regarding how and why teachers are using social media for professional development should be conducted in other parts of the country to investigate if there are similar findings.

Subjectivity

Patton (2002) discusses the importance of the researcher recognizing personal goals in the research and suggests acknowledging those personal goals and biases in an effort to establish trustworthiness in the results. Prior to embarking upon this study, this researcher held a position in which providing teachers with quality professional development was a job requirement. That

experience fostered a passion for seeking methods to not only provide quality professional development trainings for teachers, but also to connect teachers with quality professional learning opportunities and resources as well. Furthermore, this researcher is an avid user of social media for professional development and access to educational resources. Therefore, it was critical that this researcher employ triangulation procedures in the data collection methodology as well analyzing the data in an effort to maintain the trustworthiness of the study. In addition, the researcher tried to make every effort to address moderator bias by being cognizant about maintaining control of body language, facial expressions, and voice intonation during the one-on-one interviews and focus group in an effort to remain neutral.

Because this study utilized a convenient population of 78 kindergarten through twelfth grade teachers in one school district willing to participate, there was no bias as to any particular grade level of public school teachers. While the results from this study are not generalizable to the entire kindergarten through twelfth grade public school teacher population, the researcher did make an effort not to be biased as to a particular grade level when selecting participants from this school district for the study. In addition, the doctoral chair reviewed questions on the instruments to ensure no bias was evident that could lead the participants to respond in any intended fashion other than truthful.

Summary

The purpose of this mixed methods study was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development purposes. Data were collected through open and closed ended questions on a social media questionnaire given at seven school sites, during one-on-one interviews conducted with 15 teacher participants, and a focus group consisting of six participants. The quantitative data were

compiled, sorted, and analyzed for frequency utilizing an Excel spreadsheet. Statistical analyses were performed utilizing SPSS to determine correlations among the demographic information, social media applications being used, reasons for using social media, and frequency of usage of social media. The qualitative data were compiled, sorted, and analyzed through inductive methods searching for themes and patterns that emerged from coding all of the transcriptions. The findings generated from the data were reported in a narrative discussion that focused on how and why kindergarten through twelfth grade public school teachers were using social media for professional development purposes.

CHAPTER 4

REPORT OF DATA AND DATA ANALYSIS

The purpose of this mixed methods study was to investigate how and why teachers were using social media for professional development purposes. Open and closed ended questions on a social media questionnaire, during one-on-one interviews, and during a focus group were used in an effort to obtain insight of the participants' perspectives regarding their social media usage for professional development. This study provides insight into how teachers were using social media for professional development such as obtaining additional resources, collaborating with colleagues online, supplementing professional development opportunities, or accessing new or current pedagogical content in an effort to improve student achievement. In addition, in order to obtain how teachers were using social media for professional development, it was necessary to investigate which social media applications teachers were using and the frequency of that usage for correlation analyse. This study also delved into the possible reasons why teachers were using social media for professional development such as a lack of time during the school day, ease and convenience of social media through the Internet, preference, or shortcomings of traditional professional development opportunities. Finally, this study investigated if and how teachers were determining the quality of the information found on social media applications. This was necessary to understand how teachers discern among the plethora of information available via social media resources as what to actually implement within the classroom. This chapter presents results from the data collected for this study and an analysis of the findings.

The following research questions were answered:

1. How are kindergarten through twelfth grade public school teachers using social media for professional development?

2.   Why are kindergarten through twelfth grade public school teachers using social media for professional development?

3.   What types of social media applications are kindergarten through twelfth grade public school teachers using for professional development?

4.   How are teachers assessing the credibility of the information obtained from social media sources?

Research Design

This study was a descriptive exploratory study with a mixed methods design. The participants were kindergarten through twelfth grade public school teachers teaching in a rural county in the southwestern part of the United States (U.S.). The purpose was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development. The central questions of this study were investigated through open and closed ended responses on a questionnaire, during one-on-one interviews, and during a focus group. The quantitative aspect included gathering demographic data from the participants, frequency of their social media usage, and social media applications being used for professional development via closed ended questions for correlation analysis. For qualitative analysis, data were acquired through open ended questions on the social media questionnaire and during the interviews. A grounded theory method was utilized for the design of this study because the focus was on the process of generating theory based on themes emerging from the data collected from teachers immersed in the phenomenon rather than to test theory or hypotheses (Patton, 2002).

Prior to the start of this study, the researcher conducted a pilot study in June 2014 via an online survey for teachers utilizing Survey Monkey. An email invitation containing the social

media usage survey was sent to approximately 80 public school teachers in the school district in which the researcher currently works. It consisted of ten closed ended questions crafted by the researcher regarding teacher usage of social media. The intent was to determine if teachers were utilizing social media for professional development. Basic descriptive statistics were utilized to analyze the 56 online survey responses. Data revealed 88% of teachers were indeed utilizing social media for professional development. However, the researcher needed to revise the survey items to answer the questions for this study and chose to include all social media applications. The social media questionnaire was revised for this study and was comprised of 16 open and closed ended questions.

Data Collection Method

Data for this study were collected utilizing open and closed ended questions in three forms: a social media usage questionnaire, one-on-one interviews with fifteen participants, and a focus group consisting of six participants. Data were collected from August 2015 until November 2015. Participants for the social media questionnaire were recruited at seven approved research sites through distribution of the social media usage questionnaire. Willing participants completed the social media usage questionnaire and informed consent form, placed them in separately sealed envelopes, and deposited the completed forms in a sealed collection box left at each site by the researcher. A total of 78 (n= 78) social media usage questionnaires and consent forms out of the 140 (56%) distributed were returned completed. The social media usage questionnaire contained questions related to demographics, as well as open and closed ended questions regarding frequency of social media usage, social media applications being utilized for professional development, and reasons for social media usage for professional development. In addition, the social media questionnaire also provided a space for participants

to provide an email address to be contacted if they were willing to participant in a one-on-one interview or focus group. Based on answers participants provided on the social media questionnaire on item 11 which inquired as to the frequency of their social media usage, the researcher classified the participants' usage of social media as either a light user, moderate user, or heavy user. Participants that reported daily usage were placed into the heavy social media usage category. Participants that responded weekly usage were placed into the moderate social media usage category, and participants that reported monthly and yearly usage were placed into the light social media usage category. Five participants per social media usage category were then randomly selected from each category to participate in the one-on-one interviews. The participants were contacted by the researcher via email to schedule a time, day, and location for the interview to take place. After the interviews were completed, six additional participants were randomly selected based on their social media usage classification by the researcher to participant in a focus group. Participants for the focus group were contacted by the researcher via email to arrange the time, day, and location of the focus group.

Demographics

The participants for this study were 78 kindergarten through twelfth grade public school teachers in a rural county in the southern part of the United States. Demographics for this study are summarized in Table 3. Of the 78 participants, 92% (n=72) were female and 8% (n=6) were male, making male representativeness out of proportion to the female participants in the population. All ranges of years of experience were well represented in the population. Of the population, 23% (n=18) had been teaching less than five years, 19% (n=15) had been teaching for more than five but less than ten years, 40% (n=31) had been teaching from ten to 19 years, and 18% (n=14) had been teaching for 20 or more years.

Table 3

Demographics of Survey Participants

Years of Experience	Gender	Grade Level	Position	Degree Level
0-5 Years	Female	Elementary	Classroom	Bachelor of Science
18 (23%)	72 (92%)	55 (70%)	61 (78%)	33 (42%)
6 to 10 Years	Male	Middle School	Other Certified	Master of Science
15 (19%)	6 (8%)	9 (12%)	17 (22%)	32 (41%)
10 to 19 Years		High School	Administration	Education Specialist
31 (41%)		14 (18%)	0 (0%)	1 (1%)
20 or More Years				Doctorate
14 (18%)				12 (15%)

Note: For Table 3 (n=78)

While participants for the one-on-one interviews and focus group were from the original pool of 78 participants, the 15 one-on-one interview participants and the six focus group participants were randomly selected based on their willingness to participate and their social media usage classification determined from the participants' responses on the social media questionnaire. From each of three social media usage categories, heavy, moderate, and light, the researcher randomly selected five participants to participate in the one-on-one interviews. Demographics for the interview participants are summarized in Table 4. All of the interview participants were female. Of the fifteen interview participants, one teaches at the high school level, one teaches at the middle school level, and the remaining thirteen participants teach at the elementary level. While this study did not focus on any particular grade level, degree level obtained, number of years of experience, or position held, priority was given to selecting

participates based on social media usage classification. However, demographic information was collected to calculate basic statistical analysis and perform correlation analysis.

Table 4

Demographics of Interview Participants

Years of Experience	Gender	Grade Level	Position	Degree Level
0-5 Years	Female	Elementary	Classroom	Bachelor of Science
0 (0%)	15 (100%)	13 (87%)	14 (93%)	10 (67%)
6 to 10 Years	Male	Middle School	Other Certified	Master of Science
5 (33%)	0 (0%)	1 (7%)	1 (7%)	4 (27%)
10 to 19 Years		High School	Administration	Education Specialist
7 (47%)		1 (7%)	0 (0%)	1 (7%)
20 or More Years				Doctorate
3 (20%)				0 (0%)

Note: For Table 4 (n=15)

Participants for the focus group were randomly selected based on their willingness to participate and their social media usage classification. The researcher determined their social media usage based on their survey responses regarding the frequency of their social media usage. Two participants were selected from each of the social media usage categories, heavy, moderate, and light, for a total of six focus group members in all. The focus group participants were all female and teach at the elementary level. Again, because this study did not focus on any particular grade level or other demographic classification, focus group participants were selected

based on their social media usage classification determined by their survey responses. A

summary of the demographics of the focus group members is presented in table 5.

Table 5

Demographics of Focus Group Participants

Years of Experience	Gender	Grade Level	Position	Degree Level
O to 5 Years	Female	Elementary	Classroom	Bachelor of Science
1 (17%)	6 (100%)	6 (100%)	5 (83%)	1 (17%)
6 to 10 Years	Male	Middle School	Other Certified	Master of Science
0 (0%)	0 (0%)	0 (0%)	1 (17%)	4 (67%)
10 to 19 Years		High School	Administration	Education Specialist
5 (83%)		0 (0%)	0 (0%)	1 (17%)
20 or More Years				Doctorate
0 (0%)				0 (0%)

Note: For Table 5 (n=6)

Based on the pool of participants, the population is comprised of 70% (n=55) elementary

teachers, 12% (n=9) middle school teachers, and 18% (n=14) high school teachers. The school

district has five elementary schools, one middle school, and one high school. Based on the

actual number of teachers teaching at each grade level in the school district, the grade level

representativeness for the study includes, 71% (n=55) of the participants were elementary

teachers, 12% (n=9) were middle school teachers, and 18% (n=14) were high school teachers.

A summary of grade level representativeness of the participants is included in Table 6.

Unfortunately, the high school and middle school levels were not as well represented as the other

grade levels.

Table 6

Grade Level Representativeness

	Respondents	Representativeness
Elementary	55	71%
Middle School	9	12%
High School	14	18%

Note: For Table 6 (n= 78)

Of the total population of participants, 78% (n=61) were classroom teachers, while the other 22% (n=17) were other certified personnel within the schools that included: three school counselors, two speech pathologists, four librarians, five instructional coaches, and three physical education instructors. While other certified personnel were included in the study, the researcher did not invite administrative personnel such as principals and vice principals to participate. In addition, 42% (n=33) of the participants hold a Bachelor of Science degree in Education, 41% (n=32) hold a Master of Science in Education degree, 16% (n=12) hold an Education Specialist degree, and only 1% (n=1) hold a terminal degree in Education.

Findings for Research Question One

In an effort to gather data to answer research question one, "How are kindergarten through twelfth grade public school teachers using social media for professional development?", open and closed ended questions were included on the social media questionnaire, during the one-on-one interviews, and during the focus group. One critical aspect of this study was first to determine if teachers were in fact utilizing social media for professional development. According to the participants' responses, 96% (n=75), use social media for professional development purposes, while 4% (n=3) indicated they do not use social media for professional

development purposes. Table 7 summarizes the percent of the participants using social media

for professional development. If the participants indicated they did not use social media for

purposes related to their job, a subsequent question also asked for a reason why they do not.

However, none of the three participants indicated a reason as to why they do not use social media

for purposes related to their job.

Table 7

Are Teachers Utilizing Social Media for Professional Development Purposes?

	Frequency	Percentage
Participants Utilizing Social Media	75	96%
Participants Not Utilizing Social Media	3	4%

Note: For Table 7 (n=78)

Based on the participants' responses, an overwhelming majority were using social media

for professional development. This finding supported the need for further investigation

regarding how the participants were using social media for professional development. The next

step was to investigate how the teachers were using social media for professional development.

To investigate this question thoroughly, open and closed ended questions were employed on the

social media questionnaire and utilized during the interviews.

After analyzing the data collected, five themes regarding how teachers were using social

media for professional development emerged. Data indicated a majority of the participants were

utilizing social media to search out new teaching strategies, activities, or ideas for use in the

classroom. Of the five themes that were revealed, 90% (n=70) of the responses reported seeking

out new instructional ideas and strategies was the main purpose of their social media usage. The

second largest percentage regarding purpose of social media usage was to obtain resources with

87% (n=68). Social media usage for furthering professional knowledge was next with 76%

(n=59), and 63% (n=49) reporting using social media to deliver instructional content. Data

revealed the lowest percentage of teachers, 50% (n=39), were using social media for

collaboration purposes. This finding is interesting due to of the inherent nature of social media

being the social aspect. Table 8 summarizes in rank order the frequency and percentages of the

five purposes for which the participants indicated usage of social media.

Table 8

Purpose of Social Media Usage for Professional Development

Purpose	Frequency	Percentage
Seek new teaching strategies, activities or ideas	70	90%
Obtain resources for the classroom	68	87%
Further professional knowledge	59	76%
Deliver instructional content	49	63%
Collaboration	39	50%
I do not use social media for my job	3	4%

Note: For Table 8 (n=78) on the social media questionnaire

Data from the interviews revealed slightly contradictory results to data obtained through the

questionnaire. Based on analysis of responses from the interviews, four main purposes for using

social media were reported. According to the survey results the main purpose for using social

media for professional development was to seek out new instructional strategies and ideas.

However, interview results indicated that the main purpose for using social media for

professional development was to obtain additional resources for the classroom with 71% (n=15)

and following closely with 67% (n=14) was seeking out new instructional strategies and ideas.

Corroborating survey data, two additional purposes included collaboration with 24% (n=5) and with 14% (n=3) furthering professional knowledge. Interview participants reported:

- "Seeing how other teachers have taught a skill or invented a new teaching strategy helps me think out of the box and be more creative." (Participant E110)

- "There are so many great teaching ideas on there that I would have never come up with in a million years." (Participant #E102)

- "It just keeps from having to do it all myself. Why reinvent the wheel as the saying goes." (Participant E112)

Because 90% (n=70) of the responses on the questionnaire indicated the main purpose for using social media for professional development was to search for new instructional strategies and ideas, open ended questions provided a method for participants to elaborate on the theme of searching for new instructional strategies and ideas. The participants' reason for seeking out new instructional strategies and ideas were motivated by two main purposes. Of 21 interview participants, ten participants noted their searching for new instructional strategies and ideas revolved around trying to find learning activities for their students that would be engaging and stimulating in an effort to improve student achievement. The same ten participants reported they felt they were able to find more creative and engaging learning activities than they were able to generate on their own. However, the other eleven interview participants expanded on the concept by adding their intent behind searching for new instructional strategies and ideas was to improve student achievement by researching how other teachers were teaching the same skills or content in possibly a more effective manner.

In addition, data revealed there was a nonsignificant correlation of main reason for social

media usage for professional development (to seek our new instructional strategies and ideas) and years of teaching experience by the participants, $r(76) = .17$, $p = .14$. Table 9 summarizes the correlation data. While this is not a strong correlation, this correlation between main reason for social media usage and years of experience corroborate the correlation between the main reasons for social media usage (seeking out new instructional strategies and ideas) and highest degree level held (summarized in Table 10). These teachers have the fewest amounts of years of experience teaching and hold a Bachelor of Science degree in Education, which are the newest generation of teachers.

Table 9

Correlation among Main Reason and Years of Experience

	Main Reason	Years of Experience
Main Reason	---	.17
Years of Experience	.17	---

Note: For Table 9 (n=75)

Data indicated there was a nonsignificant correlation of main reason for social media usage for professional development and degree level held by the participant, $r(76) = .17$, $p = .13$. Again, while there may not be a strong correlation, there is a positive correlation. The correlation among main reason for social media usage (seeking out new instructional strategies and ideas) and highest degree level obtained again supports the correlation made in Table 9 between main reason (to seek out new instructional strategies and ideas) and number of years of teaching experience.

Table 10

Correlation among Main Reason and Degree Level Obtained

	Main Reason	Degree Level Obtained
Main Reason	---	.17
Degree Level Obtained	.17	----

Note: For Table 10 (n=75)

Summary of Research Question One

1. How do kindergarten through twelfth grade public school teachers use social media for professional development?

According to data collected, 96% (n=75) of the participants are using social media for professional development. Unfortunately, the three participants (4%) that indicated that they did not use social media for professional development did not provide a reason. Analysis of the data revealed five methods in which the participants are utilizing social media for professional development. Of the five methods of social media usage, an overwhelming majority of the participants, 90% (n=70), indicated their main purpose of social media usage for professional development was to seek out new instructional strategies and ideas for the classroom. Furthermore, correlation analysis revealed a weak, but positive correlation among the main reason participants are utilizing social media for professional development and the number of years of experience. This indicates that teachers with fewer years of teaching experience are more likely to use social media to seek out instructional strategies and ideas for the classroom than teachers with more years of teaching experience. In addition, correlation analysis revealed weak, but a positive correlation among the main reason participants are utilizing social media for professional development and degree level obtained. This also indicates that teachers who hold a

Bachelor of Science degree in Education are more likely to use social media to seek instructional

strategies and ideas for the classroom than teachers who hold higher degrees.

Findings for Research Question Two

2. Why are kindergarten through twelfth grade public school teachers using social media for

   professional development?

Data from research question one indicated participants are using social media for

professional development purposes. In addition, data revealed the two main reasons for using

social media for professional development were to seek out new instructional strategies and ideas

and obtain additional resources for the classroom. While those reasons could also explain why

teachers are using social media for professional development, the researcher chose to further

investigate research question two, "Why are kindergarten through twelfth grade public school

teachers are using social media for professional development?". To determine why kindergarten

through twelfth grade public school teachers are using social media for professional

development, the participants were asked an open ended question on the social media

questionnaire to explain why they would or would not recommend social media usage to other

teachers for professional development.

Unfortunately, out of the 75 questionnaire respondents that indicated social media usage

for professional development, only 54 provided a response as to why they use social media for

professional development. While not by a large percentage, 33% (n=18), it appears as if one of

the most appealing aspects of social media usage is the abundance of information within reach at

their fingertips instantly.   However, following closely, 26% (n=14) of participants indicated that

the ease and convenience of using social media for professional development was an important

factor for their usage. A summary of the reasons the participants gave for their social media

usage for professional development is provided in Table 11.

Table 11

Reasons Why Participants Use Social Media for Professional Development

	Frequency	Percentage
There is a wealth of information available.	18	33%
It is easy and convenient to use.	14	26%
You can connect with teachers all over.	10	19%
You can do it at your own time and pace.	6	11%
You can stay current on education topics.	6	11%

Note: For Table 11 (n=54)

　　　Interestingly, 19% (n=10) of participants indicated an essential factor for using social

media for professional development purposes was to connect and collaborate with other teachers

from all over the world. This low percentage supports responses the participants gave regarding

use of social media for professional development through collaboration summarized in research

question one.   Utilizing social media for collaboration purposes was ranked fourth, with 50%

(n=39) of the participants indicating collaboration was a way they were using social media for

professional development. This is also slightly contradictory to another questionnaire item.

Number 14a on the questionnaire inquired if social media was used to collaborate with other

teachers. A majority of the respondents 51% (n=40) indicated they do not collaborate with other

teachers via social media. However, while 51% (n=40) was the majority of participants, 49%

(n=38) of the participants responded they do connect with other teachers using social media. The

slight differences in those percentages being reported on different question items indicates

further inquiry is needed to thoroughly investigate social media usage for collaboration.

In an effort to delve further into possible reasons why teachers are using social media for

professional development purposes, an open ended question was crafted for the interviews

inquiring as to whether or not the participants perceived any advantages and disadvantages for

using social media.   Participants reported the perceived benefits of social media usage:

- "You get to collaborate with teachers from all over the world. How would that have been

  possible before?" (Participant # E116)

- "I am able to learn new ways to teach material and see different ideas, and there's no way

  on Earth I would have ever been able to do that before." (Participant # E102)

- "Well, it is a cost effective way to get a wide variety of learning activities. Not to

  mention the time it saves teachers by using what others are sharing." (Participant # E92)

- "There isn't enough time during the school year to do a lot of face to face professional

  development. So social media gives you the opportunity, so to speak, to bring the

  workshops to you." (Participant # E98)

- "The convenience is what is appealing to me. I can do it whenever and wherever I have

  the chance." (Participant # E96)

While 100% (n=21) of the interview participants indicated there were benefits to using

social media for professional development, several of the interview participants also perceived

negative aspects or disadvantages as well.   Five of the interview participants indicated that using

social media meant it was necessary to take precaution and be responsible regarding the type of

information being accessed, how that information is being used, and the effects on student

achievement. Three interview participants felt as though one negative aspect of using social

media for professional development purposes was the potential to come across false information. Participant E92 reported another negative aspect of using social media for professional development was in the impersonal nature in which things are conveyed electronically with the following comment:

- "With face to face professional development I can ask questions and the facilitator could explain and show me in person, but you can't do that through social media."

Interview participant # E69 reported:

- "The only thing I think that would be an issue is if somebody doesn't know or understand the standards they are supposed to be teaching. It might be the same topic but they may not have the same objective as we do. If they don't know what they're looking for or what they may teach the wrong thing."

Another participant indicated that it may be possible for some teachers to become too dependent on using information obtained from social media sources rather than becoming thoroughly familiar with the standards themselves. However, seven of the interview participants revealed they had not yet encountered any negative aspects from their social media usage for professional development purposes, and, at this point, did not perceive any disadvantages to using social media for professional development.

Frequency of collaboration was collected on a specific (open ended) item on the social media questionnaire from participants who indicated using social media to collaborate with other teachers. Data revealed a nonsignificant negative correlation between frequency of collaboration via social media applications and number of years teaching, $r(76) = -.06$, $p = .62$. Table 12 provides a summary of the correlation data among frequency of collaboration and numbers of years of teaching experience. While not at the significant level, this correlation data did reveal a

negative correlation among frequency of social media usage for collaboration and the numbers of

years of experience. This correlation indicates that as the number of years of teaching increases

the frequency of the use of social media for collaboration decreases. This also supports

responses summarized in the research question one section where teachers who had the least

numbers of years of experience were the ones who were utilizing social media the most to search

out new instructional strategies and ideas and obtain additional resources for the classroom.

Furthermore, this correlation also supports the correlation found between degree level and main

reason for using social media for professional development which found teachers who hold a

Bachelor Degree of Science in Education were more likely to use social media to seek out new

instructional strategies and ideas than teachers who hold more advanced degrees.

Table 12

Correlation among Frequency of Collaboration Usage and Years of Experience

	Frequency of Collaboration	Years of Experience
Frequency of Collaboration	---	-.06
Years of Experience	-.06	---

Note: For Table 12 (n=78)

Furthermore, data indicated a nonsignificant negative correlation between frequency of

collaboration via social media applications and degree level obtained by the participants, r(76) =

-.14, p = .24. Table 13 summarizes the correlation data among frequency of social media usage

for collaboration and degree level obtained. This negative correlation between frequency of

collaboration and degree level obtained corroborates the negative correlation between frequency

of collaboration and years of experience because again these are participants with the fewest

years of experience, whom at this point in their career only hold a Bachelor of Science degree in Education.

Table 13

Correlation among Frequency of Collaboration Usage and Degree Level Obtained

	Frequency of Collaboration	Degree Level Obtained
Frequency of Collaboration	---	-.14
Degree Level Obtained	-.14	---

Note: For Table 13 (n=78)

Summary of Research Question Two

Analysis of the data revealed 33% (n=18) of the participants were using social media for professional development due to the abundance of instructional material available through social media applications. The second largest percentage, 26% (n=14), indicated the use of social media applications for professional development because of the convenience and ease of doing so. Correlation analysis revealed a weak, but negative correlation among frequency of collaboration via social media applications and years of teaching experience. This indicates that as the numbers of years of teaching experience increases, the frequency of social media usage for collaboration decreases. Furthermore, additional correlation analysis also revealed a weak, but slightly stronger negative correlation among frequency of collaboration via social media applications and degree level obtained. Therefore, the higher the degree level obtained by the teacher, the lower the frequency of social media usage for collaboration.

Findings for Research Question Three

After investigating how and why kindergarten through twelfth grade public school teachers were using social media for professional development, the next step of this study was to determine which social media applications were being utilized and frequency of usage. Open and closed ended questions were utilized on the questionnaire and during the interviews to examine which social media applications teachers were using for professional development purposes. A summary of the social media applications being utilized by the participants along with the frequencies of use of those applications are summarized in Table 14.

Responses from the questionnaire and the interviews revealed that use of social media websites was the most preferred social media application for professional development. Examples of social media websites participants listed were: Pinterest, TeachersPayTeachers, DonorsChoose, and professional organization websites. The researcher chose to separate social media websites and teacher blogs in an effort to better understand which social media applications teachers were utilizing and frequency of usage of those applications.

Table 14

Frequency of Social Media Applications Being Used

	Frequency	Percentage
Social Media Websites	66	88%
YouTube	65	87%
Teacher Blogs	41	55%
Facebook	19	25%
Linkedin	6	8%
Twitter	6	8%

	Frequency	Percentage
MySpace	0	0%

Note: For Table 14 (n=75)

Responses from the questionnaire indicated participants are employing social media websites more often than other social media applications for professional development purposes, however, results from the interviews produced slightly contradictory results. Data from the interview participants supported results from the questionnaire in which the majority of participants indicated the use of social media websites for professional development purposes. Based on the data from the interviews, 48% (n=10) of the respondents utilize social media websites for professional development. However, the questionnaire respondents preferred YouTube second best to social media websites, and the interview participants preferred Facebook 29% (n=6) second to the use of social media websites. Table 15 summarizes the preferred social media applications among the interview participants.

Table 15

Preferred Social Media Application among Interview Participants

	Frequency	Percentage
Social Media Websites	10	48%
Facebook	6	29%
Teacher Blogs	3	14%
YouTube	1	5%
Instagram	1	5%

Note: For Table 15 (n=21)

According to analysis of the open ended aspect of the questionnaire responses regarding how participants were utilizing social media websites, participants identified five methods for utilizing social media websites. The five methods users specified were to: obtain instructional resources for the classroom, 83% (n=55), seek out new instructional strategies and ideas, 53% (n=35), stay current on topics in education, 23% (n=15), further professional knowledge, 15% (n=10), and for collaboration, 2% (n=1). Table 16 summarizes how the 88% (n=66) of social media websites users used Pinterest, TeachersPayTeachers, DonorsChoose, and professional organization websites.

Table 16

Methods in which Social Media Website Users use Social Media Websites

	Frequency	Percentage
Obtain Instructional Resources	55	83%
Seek New Instructional Strategies and Ideas	35	53%
Stay Current on Educational Topics	15	23%
Further Professional Knowledge	10	15%
Collaboration	1	2%

Note: For Table 16 (n=66)

Data were also obtained on the questionnaire to determine how frequently the participants were using social media for professional development purposes. Frequency of social media usage was utilized to place participants into categories of social media usage for correlation analysis and to aid the researcher in selecting participants for the interviews. Item eleven on the social media usage questionnaire asked participants to indicate the frequency of their social media usage for professional development. This information was used to determine in which

social media usage category (heavy, moderate, or light usage) to place the participants.

Participants selecting "daily usage" were placed in the heavy usage category. Participants that

chose "weekly usage" were placed in the moderate category and participants that indicated

"monthly or yearly usage" were placed in the light usage category. Table 17 depicts the

frequency and percentage of the participants' responses regarding their frequency of social media

usage. Unfortunately, 25% (n=19) of the participants did not respond to that item on the

questionnaire. Therefore, table 17 only reflects 75% (n=56) of the participants. Based on the

researcher's classification of social media usage, results indicate that the largest percentage of

responding participants, 32% (n=18), were moderate (or weekly) users, and 61% (n=34) of

responding participants used social media daily or weekly.

Table 17

Frequency of Social Media Usage for Professional Development

	Frequency	Percentage
Weekly	18	32%
Daily	16	29%
Monthly	14	25%
A Few Times a Year	8	14%

Note: For Table 17 (n=56)

From the responses that were listed, 39% (n=22), of the participants were classified as

light social media users because monthly and a few times a year were combined, 32% (n=18),

were classified as moderate users, and 29% (n=16), were classified as heavy users. While

careful effort was made to select participants for the interviews based on their social media usage

classification as indicated by their responses on the questionnaire, data from the interviews

revealed that many of the participants underestimated their social media usage on the questionnaire.   After comparing data from the participants' social media questionnaire with verbal responses during the interviews, three participants overestimated their social media usage for professional development purposes and eleven of the participants underestimated their social medial usage. However, seven of the participants' responses confirmed the responses originally indicated on questionnaires. It is possible that when the participants completed the questionnaires, many were actually unaware that many of the applications being utilized for professional development were social media applications. During the interaction in the interviews, it is possible that the researcher was able to clarify for many of the participants which applications are social media applications and which were not.

Frequency of social media usage was also used for correlation analysis. The data indicated a nonsignificant correlation of frequency of social media usage and degree level held by the participant, $r(76) = .16$, $p = .15$. A summary of correlation data between frequency of social media usage and degree level held is depicted in table 18. This positive correlation, while not strong, indicates participants that currently hold a Bachelor of Science degree in Education are more frequent users of social media applications for professional development. Interestingly, the positive correlation between frequency of social media usage and degree level obtained is slightly stronger than the positive correlation among frequency of social media usage and number of years of teaching experience.

Table 18
Correlations among Frequency of Social Media Usage and Degree Level Obtained

	Frequency of Social Media Usage	Degree Level Obtained
Frequency of Social Media Usage	---	.16
Degree Level Obtained	.16	---

Furthermore, data revealed there was a nonsignificant correlation of frequency of social media usage and years of teaching experience by the participants, $r(76) = .10$, $p = .41$. While data indicated a weak positive correlation, these results suggest as the years of teaching experience increase the less frequent social media is used for professional development. A summary of the correlation data regarding frequency of social media usage and years of teaching experience in depicted in table 19.

Table 19
Correlations among Frequency of Social Media Usage and Years of Teaching Experience

	Frequency of Social Media Usage	Years of Experience
Frequency of Social Media Usage	---	.10
Years of Experience	.10	---

Summary of Research Question Three

Data depicted a majority, 88% (n=66), of the participants are utilizing social media websites for professional development. Further investigation revealed five ways social media websites were being used for professional development. According to data, the majority of social media website usage, 83% (n=55), is dedicated to seeking out additional resources for the

classroom. Data were also collected to determine the frequency of social media usage. Results indicated the largest percentage, 32% (n=18), of social media users are moderate (or weekly) users. Correlation analysis revealed a weak, but positive correlation between frequency of social media usage and degree level obtained, as well as, a weak but positive correlation among frequency of social media usage and number of years of teaching experience.

Findings for Research Question Four

To answer research question four, "How are teachers assessing the credibility of the information obtained from social media sources?", open ended questions were employed on the social media questionnaire and the interviews. Based on the qualitative data obtained from questionnaire, a majority of the participants, 56% (n=34), felt confident in their own personal abilities to discern what constitutes quality or accurate information being provided through social media applications. However, 30% (n=18), of participants contend that they do research on the author or creator of the material or website to verify credibility. Table 20 summarizes data from the questionnaire regarding frequency and percentage of how teachers are assessing the credibility of the content from social media sources. Unfortunately, 19% (n=14) of the participants did not respond to how they assess they credibility of the content they are accessing via social media applications.

Table 20

How Teachers are assessing the Credibility of the Content on Social Media Sources

	Frequency	Percentage
Use personal judgment	34	56%

	Frequency	Percentage
Do research on author of content	18	30%
Compare information with state standards	5	8%
I only use sources I know and trust.	3	5%
Only use sites that colleagues recommend	1	2%

Note: For Table 20 (n=61)

Further inquiry regarding how teachers are assessing the credibility of information they are obtaining through social media application, was made during the interviews. Data revealed 100% (n=21) of the interview participants at first responded that they use personal judgment to determine credibility or validity of the content being accessed via social media applications. However, when asked to elaborate, 100% (n=21) of the interview participants followed up their responses with using their personal judgment about the content based on what they know about teaching and the standards that they are responsible for teaching. Four interview participants went on to add:

- "I have been teaching long enough that I kind of have an idea when I see something online whether or not it is credible in the arena of education or not. Fortunately for us veteran teachers, most topics in education come back around eventually. " (Participant # 103)

- "It does get hard these days to determine credibility because everyone loves to throw around the word research-based. Who has time to actually look through all of the research and see if they are telling the truth?" (Participant # 118)

- "Well I think most of the time it is not an issue of being accurate information. It's not like there is a lot of new content knowledge we don't know. It is really more about it being

useable information. Then you just have to try it and see if it works for you." (Participant #E17)

- "I compare the information from the site to what I know about the standards and objectives I am teaching and see if it aligns with what I am teaching and what it says about that particular standard or objective in the Alabama Course of Study Guidelines book for my grade level." (Participant # 202)

Analysis indicated a nonsignificant correlation between method of assessing credibility of social media content and number of years teaching, r(76) = .12,p = .29. According to these data, teachers with the fewest number of years teaching are the teachers who were using their own personal judgment to evaluate the credibility of the content being accessed through social media applications. Table 21 summarizes the correlation data among method of assessing credibility of social media content and number of years teaching.

Table 21

Correlation among Method of Assessing Credibility and Years of Teaching Experience

	Method of Assessing Credibility	Years of Experience
Method of Assessing Credibility	---	.12
Years of Experience	.12	---

Furthermore, data revealed a nonsignificant correlation between method of assessing credibility of social media content and degree level obtained by the participant, r(.76) = .17,p = .14. This correlation appears to be slightly stronger than the correlation among method of assessing credibility of social media content and number of years of teaching experience. Analysis revealed a slightly stronger correlation among method of assessing credibility and

degree level obtained. Analysis indicates there is a correlation among participants who hold a

Bachelor of Science degree in Education and use of one's own personal judgment to evaluate the

credibility of the information being accessed through social media applications. A summary of

correlation data among method of assessing credibility of social media content and highest

degree level held are shown in Table 22.

Table 22

Correlation among Method of Assessing Credibility and Degree Level Obtained

	Method of Assessing Credibility	Degree Level
Method of Assessing Credibility	---	.17
Degree Level	.17	---

Summary of Research Question Four

According to data collected to answer question four, a majority of the participants, 56%

(n=34), are relying solely on their own personal judgment to determine the credibility of the

information being accessed through social media applications. Furthermore, correlation analysis

revealed weak, but positive correlation between the use of one's own personal judgment to

determine credibility of the content being accessed through social media applications and

number of years teaching. As well as, a weak but positive correlation among the use of one's

own personal judgment to determine credibility of the content being accessed through social

media applications and highest degree level held.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this mixed methods study was to investigate how and why teachers were using social media for professional development. In addition, due to the current void in the body of literature surrounding social media usage for professional development, this research will add to and strengthen what is currently available. This information will also provide school and district curriculum leaders with information regarding how and why teachers are using social media for professional development. The participants were from a rural school district in the southern part of the U.S. A total of 140 questionnaires were distributed among the seven research sites. The return rate of the questionnaire was 56% (n=78). Demographic information was collected in an effort to calculate basic statistics and perform correlation analyse. Qualitative data were collected through open ended questions on the survey as well as during fifteen one-on-one interviews and a focus group consisting of six members. Based on the participants' social media frequency response, the researcher placed each participant into one of three social media usage categories, heavy usage (daily user), moderate usage (weekly user), or light usage (monthly or yearly user). The researcher then randomly selected five participants from each of the three social media usage categories to participate in the one-on-one interviews and two from each category to participate in a focus group. Qualitative responses were analyzed in an effort to determine what themes would emerge that could answer the research questions for this study. Descriptive statistics were calculated in an effort to better understand details of the

participants. In addition, frequency of social media usage, as well as social media applications

reported, were used to conduct correlation analyses with the demographic data

Analysis of Research Findings

Data collected were analyzed to answer the following research questions:

1. How are kindergarten through twelfth grade public school teachers using social media for professional development?

2. Why are kindergarten through twelfth grade public school teachers using social media for professional development?

3. What types of social media applications are kindergarten through twelfth grade public school teachers using social media for professional development?

4. How are teachers assessing the credibility of the information obtained from social media sources?

The initial inquiry was to determine if teachers were using social media for professional development. Results revealed, 96% (n=75), of the participants do use social media for professional development. Further investigation indicated five ways for which participants are utilizing social media for professional development: seek out new instructional strategies and ideas, 90% (n=70), obtain resources for the classroom, 87% (n=68), further professional knowledge, 76% (n=59), deliver instructional content, 63% (n=49), and collaborate with other teachers, 50% (n=39). Data from the interviews supported these findings with a slight exception. Interview data ranked the top two methods for social media usage in reverse order: obtain resources for the classroom, 71% (n=15), and then seek new instructional strategies and ideas with 67% (n=14). Correlation analysis revealed a weak but positive correlation among the main reason for social media usage, seeking out new instructional strategies and ideas, with teachers with the fewest years of teaching experience. Corroborating that evidence, additional correlation analysis indicated a weak, but positive correlation between the main reason for social media

usage for professional development (seeking out new instructional strategies and ideas) and

teachers who held a Bachelor of Science degree in Education.

Inquiry regarding why teachers are utilizing social media for profession development also

revealed five themes. Teachers indicated, the most frequent reason, with 33% (n=18), they use

social media for professional development is because there are copious amounts of information

available instantly at their fingertips. Following closely behind was the ease of use and

convenience, 26% (n=14), the ability to connect with teachers all over the world, 19% (n=10),

autonomy over time and place of access, 11% (n=6), and the ability to stay current on topics in

education, 11% (n=6). While collaboration was ranked third under reasons why participants are

using social media, when asked specifically about social media for collaboration purposes, 49%

(n=38), of participants indicated usage of social media to collaborate for professional purposes.

However, the percentage of respondents that reported not using social media for professional

collaboration purposes was extremely close with, 51% (n=40), which happened to be slightly

higher.

Further investigation revealed the most frequently used social media applications among

the participants. The most popular social media application was the use of social media

websites, 88% (n=66), such as Pinterest, TeachersPayTeachers, and Donorschoose.

Subsequently, the next most popular applications were YouTube, 87% (n=65), teacher blogs,

55% (n=41), Facebook, 25% (n=19), Linkedin, 8% (n=6), and Twitter/Instagram, 8% (n=6). In

addition to which social media applications were being used, data regarding frequency of social

media usage were also collected. The highest percentage of the participants reported weekly

social media usage, 32% (n=18), while the other respondents indicated daily usage, 29% (n=16),

monthly usage, 25% (n=14), and yearly usage, 14% (n=8). Unfortunately, 25% (n=19) of the

participants did not respond to the frequency of social media usage item on the questionnaire. Correlation analysis discovered a weak, but positive correlation, among frequency of social media usage and degree level obtained. This indicated participants holding a Bachelor of Science degree in Education were the ones using social media more frequently than participants with higher degree levels. While weaker than the correlation among frequency of social media usage and degree level obtained, correlation analysis also revealed a weak, but positive, correlation between frequency of social media usage and number of years of teaching experience. Those participants with the fewest number of years of teaching experience were more frequent users of social media.

The final research question to be answered was "How are teachers assessing the credibility of the information obtained from social media sources?" The findings indicated 56% (n=34) of the participants are simply relying on their personal judgment to determine the credibility or validity of the content being accessed through social media sources. Subsequently thereafter, 30% (n=18) of participants report conducting research on the author of the content in an effort to establish credibility of the source, 8% (n=5) report comparing the information obtained with what they know about state standards, 5% (n=3) indicated only using sources they know and trust, and the other 2% (n=1) reported only using sources that were previously recommended from colleagues. Correlation analysis revealed a weak, but positive correlation between the most popular method of assessing social media source credibility (using personal judgment) with number of years of teaching experience. This indicated a positive correlation among participants with the fewest years of teaching experience and relying on personal judgment to determine credibility of the information being obtained through social media. Supporting that correlation, additional analysis revealed a weak, but positive correlation among

the most popular method of assessing social media source credibility (using personal judgment) with degree level obtained. This correlation was slightly stronger than the correlation between using personal judgment to determine credibility and years of experience. This indicated a positive correlation among participants who use personal judgment to determine credibility of content being obtained through social media source and holding a Bachelor Degree of Science in Education.

Discussion of Research Findings

Before investigating how and why teachers were using social media for professional development, it was necessary to determine if teachers were using social media for those purposes. Therefore, first this study revealed 96% (n= 75) of the participants were using social media for professional development. This confirms results from Lohman (2006) which concluded teachers are embracing current technologies in an effort to engage in informal learning activities. Also supporting results of this research, Purcell et al. (2013) found that 99% of their participants do in fact use the Internet to supplement professional development. As Dabbagh & Kitsantas (2012) noted, professionals will strike out on their own using tools available to them to seek out information either to answer pertinent questions, to solve problems, or to satisfy one's own curiosity. This large percentage of participation in social media usage for professional development could support the claims made by Kabilan, Adlina, & Embi, 2011; Smith & Sivo, 2012; Vu, Cao, Vu, & Cepero, 2014, who reported that educating today's students requires lifelong learning that may sometimes necessitate professional development that extends beyond traditional forms.

Also examined in this study were participant responses regarding how they were utilizing social media for professional development. Data from this study indicated five main reasons for

social media usage for professional development: to seek out new instructional strategies and ideas, 90% (n=70), to obtain resources for the classroom, 87% (n=68), furthering professional knowledge, 76% (n=59), to deliver instructional content, 63% (n=49), and collaboration, 50% (n=39). One of the salient topics in the current body of literature is the use of social media for professional collaboration. With 49% (n=38) of the participants indicating they utilize social media for collaboration purposes, this finding supports results found by Francis-Poscente & Jacobsen (2013); Reese (2010); and Smith & Sivo (2012) who found teachers benefit from the ability to connect with other teachers all over the world to participate in a collective sharing of knowledge. However, this study found collaboration was ranked fifth among the participants as methods for which social media for professional development was being utilized. In addition, Russell et al. (2009) found a major appeal of utilization of social media by teachers was due to the plethora of choices of platforms in which to seek information.

Results from this study indicated contradictory results to Berg & Chyung (2008) who found that correlation analysis between frequency of collaboration via social media applications and years of teaching experience indicated a negative correlation. Berg & Chyung (2008) reported "as age increased so did the tendency to learn by searching the web" (p. 238). The negative correlation in this study indicated quite the opposite of Berg & Chyung (2008)'s findings. Further correlation analysis among frequency of collaboration via social media applications and degree level obtained supported the results which revealed a negative correlation. This negative correlation indicated the higher the degree obtained the less frequent use of social media as a means for professional development.

In addition to how teachers were using social media for professional development, this study also investigated reasons why social media was used. Data revealed five main reasons

why the participants were using social media for professional development purposes: the

abundance of information available, 33% (n=18), ease and convenience of use, 26% (n=14),

connect with teachers all over, 19% (n=10), autonomy over time, place, and pace, 11% (n=6),

and to stay current on education topics, 11% (n=6). These data confirm findings from the

research of Allen & Seaman (2011) and Herbold (2012) in which the participants revealed, while

not being the most critical element for using the Internet for online learning, one essential

component for utilizing the Internet for online learning was the ease and convenience.

Furthermore, Ostashewski, Moisey, & Reid (2011) also reported the ability to control one's own

time, space, and place for learning to take place was a driving force behind the popularity of

social media applications. However, Jurasaite-Harbison (2009) reported having anonymity was

an allure of social media usage among teachers. Data from this study did not indicate anonymity

as a reason for social media usage for professional development.

After examining how and why teachers were using social media for professional

development, the next inquiry focused on which social media applications teachers were using

and the frequency of their usage. According to the data, the most popular social media

application being utilized for professional development was social media websites, 88% (n=66).

Following closely behind social media websites were: YouTube, 87% (n=65), teacher blogs,

55% (n=41), Facebook, 25% (n=19), Linkedin, 8% (n=6), and Twitter/Instagram, 8% (n=6).

Current studies have focused on Facebook and blogs, but to date have not yet thoroughly

examined teacher usage of social media websites (aside from blogs) as a means for professional

development. This study confirms results reported by Hao (2010); Hou, Sung, & Chang (2009);

& Park, Heo, & Lee (2011) in which teachers are utilizing blogs for professional development.

Furthermore, due to its popularity for social reasons, Facebook has also received attention in

many research studies concerning its use a learning platform. With 25% (n=19) of the

participants indicating the use of Facebook for professional development, this study supports

results indicated by Avci & Askar (2012) which reported a marrying of personal and professional

uses of Facebook.

In an effort to perform correlation analysis, data were collected regarding frequency of

social media usage for professional development. Data indicated 32% (n=18) of the participants

were using social media for professional development weekly, 29% (n=16) reported daily usage,

25% (n=14) reported monthly usage, and 14% (n=8) indicated usage as a few times a year.

Unfortunately, 25% (n=19) of the participants did not indicate a response for regarding

frequency of social media usage. However, as Mizell, Hord, Killion, & Hirsh (2011) contend, in

an effort for professional development to be effective it should be sustainable and provided over

a minimum of three to four hours a week. Desimone (2011) goes further and recommends over

20 hours of professional development over the course of a school year. Based on data from this

study, 45% (n=34) of the participants are logging in over 100 hours over the course of a school

year for professional development purposes through the use of social media applications.

Data from this study indicated slightly different results than Duggan & Smith (2013).

Duggan & Smith (2013) reported over 73% of adults are utilizing social media applications on a

daily basis. While this study reported 29% (n=16) of the participants utilizing social media on a

daily basis, perhaps Duggan & Smith (2013) did not distinguish between personal and

professional uses of social media as did this study. Because this study asked specifically for

social media usage for professional development this may explain why this study's percentage of

users was lower than Duggan & Smith (2013).

In addition to investigating how and why teachers are using social media for professional development purposes, this research also delved into examining how teachers are assessing the credibility or validity of the information being obtained from social media sources. Based on the participants' responses, a large percentage of the participants, 56% (n=34), are relying on personal judgment to determine the credibility or validity of the information accessed through social media applications. This large of a percentage of participants relying solely on the use of personal judgment to determine credibility of the content is enough to raise concern. This confirms the Livingstone & Blake (2010) report which states with growing numbers of people turning to the Internet for purposes related to their profession, new risks are possible and should be thoroughly investigated.

Conclusions

The overarching conclusion is that teachers are using social media for professional development. Gess-Newsome et al. (2003) describe the goal of professional development as a method to expand one's knowledge base and facilitate effective instructional decisions. Data from this research indicated the two primary purposes teachers were utilizing social media for professional development to seek out new instructional strategies and ideas and to obtain additional resources for the classroom. Because professional development as defined by Vu et al. (2014) as the practice of acquiring knowledge and staying current in one's area of expertise for career advancement, teachers are utilizing social media for professional development purposes.

While this research revealed five broad themes regarding how teachers are using social media for professional development, the researcher suggests more research should be conducted to reveal more specific methods or trends and patterns in which teachers are using social media

for professional development. As an exploratory study regarding social media for professional development, the results of this study were insightful into this growing phenomenon. Validity of the data was ensured through the use of mixed methods data collection. Qualitative data were collected from the social media questionnaires as well as one-on-one interviews and a focus group. Data from both sources were compared to identify common themes and patterns to validate each set of results. In addition, quantitative data were collected to perform correlation analyses in an effort to substantiate the qualitative data. This triangulation of data collection was purposefully employed in order to ensure the results of this study would be valid and credible.

This research also identified five reasons participants indicated for why they use social media for professional development. Availability of copious amounts of information and ease and convenience of usage were revealed as the primary reasons why teachers use social media for professional development. While availability of a cornucopia of information and ease and convenience of usage are certainly credible and plausible justifications for utilizing social media for professional development, this researcher believes it is possible that there are deeper rooted or more specific reasons why teachers are using social media for professional development. While it can be concluded that teachers are using social media for professional development, what cannot be concluded at this time is whether or not teachers are simply supplementing professional development through social media usage or if social media is being utilized to replace traditional forms of professional development.

Unlike previous research which has focused on one particular social media application, this research allowed for all social media applications to be included. This research did reveal teachers are utilizing several social media applications for professional development including: social media websites, YouTube, blogs, Facebook, Linkedin, and Twitter/Instagram. However,

it cannot be concluded that this is an exhaustive list of social media applications teachers are using for professional development. Furthermore, data from this research did reveal teachers are utilizing these social media applications in different ways.

One of the most profound findings from this study that previous studies to date had not yet investigated was revealing the majority of the participants were relying exclusively on their personal judgment to determine credibility and validity of the content or author of the content being accessed through social media sources. School and district curriculum leaders need to be aware that judgments of credibility and validity are based on teachers' personal judgment which suggests the need to develop and implement training concerning safe guards for the use of social media.

Relationship to Research

This study had two primary domains, professional development and social media as a learning environment. The focus of this research was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development. Findings from this study offer insight into how teachers are capitalizing on professional development opportunities through the use of social media applications.

Technology has evolved and has been integrated into our daily lives at an advancing rate. While technology has grown exponentially over the years, one area of education that has not evolved at the same rate is professional development (Kabilan, Adlina, & Embi, 2011). Perhaps this is because traditional forms of professional development are afforded less often due to increased rigor and accountability, budget cuts, or previous history of inadequate return on the investment (Hirsh & Killion, 2009). However, the need for professional development still exists and is essential to meet the needs of our twenty-first century students. One constant is the desire

by some teachers to strike out on their own in search of pedagogical knowledge in an effort to improve instructional practices. Even though social media was initially conceived to maintain personal connections, the crossover of usage of social media from pleasure into the professional arena appears to have been a seamless. This study took an exploratory mindset to investigate how and why teachers were using social media for professional development. Because the use of social media for professional development has yet to be thoroughly explored, this study will add to the body of literature concerning the professional development domain. Just as our students' needs are evolving, so are the professional development needs of teachers. Therefore, educational leaders should offer teachers information on sound instructional decisions.

In addition to professional development, the other domain on which this research was founded was social media as a learning environment. While the primary utilization of social media remains connecting and communicating for personal reasons, Poushter, Bell, & Oates (2015) reported over 47% of adult online consumers had reported the use of social media for gathering information related to career and commerce. In the education arena, Hou, Chang, & Sung (2009) demonstrated how teachers were also participating in capitalizing on the attributes of social media that allowed the opportunity to connect with professional information through the use of social media applications. This study supports previous findings from Hao (2010). In that 96% (n=75) of participants were utilizing social media for professional development. While much of the research available on social media for professional development typically focuses on one particular social media application over the others, this study yielded data depicting the use of many social media applications for professional development. Furthermore, research such as Luehmann & Tinelli (2008) and Park, Heo, & Lee (2011) focused on how professional learning could transpire through interactive means on social media applications, whereas this study

revealed how participants were also use of social media for professional learning by being consumers. Therefore, this study offers insight in establishing that teachers were using social media for professional development.

Implications

The intent of this research was to investigate how and why kindergarten through twelfth grade public school teachers were using social media for professional development purposes in an effort to equip school and district curriculum leaders with data regarding this phenomenon. Based on data collected, it is clear that teachers are utilizing social media for professional development. In addition, these data could help school and district curriculum leaders with information concerning effective methods to disseminate professional development content or connect teachers with professional development opportunities. Those opportunities could be efficient and a cost effective manner for providing professional development. The study also supplies district and school curriculum leaders with information regarding sources teachers are using to supplement professional development, as well as their why they are utilizing social media for professional development. Also, the frequency with which teachers are using social media for professional development may be of interest to district and school curriculum leaders. Because the majority of the participants were utilizing social media for professional development on a weekly basis social media is an important role in teachers' professional lives. With the number of participants using social media for professional development (96%), further investigation should be considered.

To extend upon this research, additional data could be collected through surveys that delve more deeply into how professional development using social media applications compares to traditional forms of professional development. If social media for professional development is

a wide spread phenomena, as this study suggests, curriculum leaders may want to investigate

popular social media applications to locate quality professional development that could be

offered to teachers. Previously reviewing content being accessed through social media sources

could aid in linking teachers accessing credible material, as well provide more specifics on what

teachers are accessing through social media. Further research should also examine what content

or resources teachers are specifically looking for on social media applications. This would

provide great insight into what might be lacking in current professional development trainings.

As a majority of participants in this study, 96% (n=75) were using social media for

professional development. Unfortunately the use of social media for professional purposes has

the potential to develop possible hazards. According to data, 56% (n=34) of the participants

were relying solely on personal judgment to determine the credibility or validity of the content.

This finding illuminates how school and district curriculum leaders should consider developing

training programs on social media usage safety.

Information from this study may also be useful for higher education institutions with

preservice teacher programs. Because correlation data from this study revealed several positive

correlations among teachers with the fewest years of experience, it is possible that preservice

teacher education programs should consider including training regarding social media usage

safety. Higher education institutions with preservice teacher programs may also find information

regarding which social media applications teachers prefer for professional development.

Understanding which social media applications teachers prefer could assist with providing more

specific training regarding safeguard measures and assessing the credibility of information.

Lastly, because this study revealed teachers are using social media for professional

development, one of the most important aspects surrounding this phenomenon that requires

urgent attention is the effect the use of social media is having on student achievement and teacher performance. Further investigation should include a larger population, with all grade levels represented. Using a larger population to investigate the effects on student achievement would yield a more accurate picture of what is actually occurring. Using pre- and post-tests to compare student achievement before and after altering instructional practice based on professional development accessed through social media sources could provide rich insight. Using surveys to compare teachers' self-efficacy and degree of perceived learning before and after accessing professional development through social media applications could be valuable as well.

Limitations

One limitation of the study was the inclusion of only kindergarten through twelfth grade public school teachers in one public school district. Because several previous studies focused on higher education teachers, a population of kindergarten through twelfth grade public school was teachers were purposefully selected (Al-Mukhaini, Al-Qayoudhi, & Al-Badhi, 2014; Avci & Askar, 2012; Blankenship, 2011; Cain & Policastri, 2011; Jong et al., 2014). Therefore, the results of this study are not generalizable for private school teachers, teachers in higher education settings, or other K-12 teachers. A second limitation is that this study was conducted in a rural school system in the southeastern part of the U. S. Therefore, results of this study are not generalizable for teachers in other parts of the country or world. The size of the population of participants is a third limitation. There were 78 participants in this study. Because the use of social media is a global phenomenon, a more sizable population is needed to undercover all of the reasons how and why teachers use social media for professional development. In addition,

while this study did consist of 78 participants not all grade levels were represented

proportionally. Fewer secondary teachers were represented than the other two grade levels.

Recommendations for Future Study

Because the use of social media in the arena of education is still an area that is

underexplored, there is currently a dearth of research available on how teachers are using social

media for professional development purposes. While this study attempted to investigate how

kindergarten through twelfth grade public school teachers were using social media for

professional development future research should be conducted to investigate how secondary

teachers are using social media for professional development. In addition, because this research

was conducted in a small rural school district in the southern part of the U.S., further research

should be conducted in other parts of the country with a larger population. While the results

from this study did reveal several nonsignificant correlations, it is possible that a larger

population could uncover significant correlations among social media applications being utilized

and frequency of social media usage with demographic information.

Also, for the purposes of this study, all forms of social media were included. However, it

could be valuable to investigate each form of social media application separately in an effort to

investigate how and why teachers are using each individual application independently. This

could provide a more thorough understanding of this phenomenon. In addition, this research did

not investigate if there were any noticeable trends or patterns in regards to the types of

instructional strategies and ideas teachers were seeking out. Furthermore, this study did not

delve into the effects of social media usage for professional development on student

achievement. As Hochberg & Desimone (2010) reported, quality professional development

should foster some form of positive change in teacher practice or knowledge which in turn yields

improved student achievement. Therefore, it is necessary to determine the impact of social media usage for professional development on student achievement.

Future research should also be conducted to investigate the extent to which kindergarten through twelfth grade public school teachers are using social media to deliver content. Data from this study reported 47% (n=37) of the participants were using social media daily to deliver content. Furthermore, 39% (n=30) indicated using social media weekly to deliver content. Because a large portion of current literature available on social media usage for delivering content has focused on implementation in the higher education setting, future research should be conducted to investigate how public school teacher are using social media to deliver content and its impact on student achievement.

One question that still remains is whether or not teachers are simply supplementing professional development through social media usage or if social media is being utilized to replace traditional forms of professional development. Future research could divulge more detailed nuances regarding how the different types of social media applications are being used for professional development. In addition, because findings revealed that the participants were mostly relying on their personal judgment to determine the credibility of the information being assessed through social media sources additional research is needed to determine what effect those decisions are having on student achievement.

Dissemination

Sharing research results can aid in making advancements in a particular field or area. School principals and curriculum leaders will find this research particularly interesting as school leaders are often tasked with organizing, creating, or recommending quality professional development opportunities for their teachers in an effort to improve student achievement.

Unfortunately, many traditional professional development opportunities are costly and require teachers to spend time away from the classroom. Utilizing social media for professional development opportunities may provide a solution. This study will also make school leaders aware that teachers are using social media for professional development. Because a majority of the participants indicated relying exclusively on the use of personal judgment to determine credibility and validity of the content from social media sources, school leaders need to be aware that this is occurring. Therefore, this study may be of great interest for principals. Because this research was conducted in a small, rural school district in the southeastern part of the U.S. the school districts located in that particular area may be interested in receiving this research. In addition, the researcher is geographically located in an area which has several school districts. The intent is to email school leaders located within close proximity to the researcher with an abstract of the study, as well as, an Internet web address that would link them to an electronic copy of the study. Hopefully this study will provide principals with awareness of this phenomenon and insight into how and why it is occurring.

In addition to school leaders, district leaders may also be interested in this research. Many district curriculum leaders are also tasked with developing or organizing professional development opportunities. Just as principals need to be aware of the occurrence of social media usage for professional development, district curriculum leaders need to be aware. Because teachers are choosing on their own to use social media to seek out these professional development opportunities district curriculum leaders could capitalize on this method of conducting professional development and begin providing their own professional development through the use of social media applications.

An email will be sent to the district leaders working in school systems within close proximity to the researcher. There are approximately seven school systems located in that region. Therefore, an email would be sent to each one of the seven school systems' district curriculum leaders. Hopefully the awareness of social media usage for professional development will also draw attention to the need for training regarding safe guards and responsibility training concerning social media usage.

Concluding Thoughts

This researcher is and has been very passionate regarding locating and evaluating quality professional development for educators. However, not only was this study important to the researcher, it was also essential in the field of education because as established, teachers are using social media for professional development. How social media is being used for professional development is still an area that has yet to be fully investigated. Because instructional decisions that teachers make have significant consequences on the achievement of our students, any and all methods being utilized for professional development should be meticulously examined to determine not only worthiness, but the impact on student achievement.

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Appendices

Appendix A: Participation in Social Media Usage Questionnaire Consent Form

Appendix B: Social Media Usage Questionnaire

Appendix C: Interview Protocol

Appendix D: Focus Group Protocol

Appendix E: Interview Consent Form

Appendix F: Focus Group Consent Form

Appendix A

Social Media Questionnaire Informed Consent Form

You are being asked to participate in a research project conducted by Sherry Huckaby, a doctoral student in the Educational Leadership program at Columbus State University. The doctoral committee chair for this study is Dr. Jan Burcham.

I. Purpose:

The purpose of this project is to investigate how and why kindergarten through twelfth grade public school teachers in a southeastern part of the United States are using social media for professional development.

II. Procedures:

The first phase of data collection for this study will be carried out in August 2015 and will involve providing volunteer participants with a questionnaire regarding how and why they use social media applications for professional development. This questionnaire will be administered by paper and pencil at each of the seven research site locations. The questionnaire will take approximately fifteen minutes to complete. The second phase of data collection for this study will be carried out between September to October 2015 and involve asking participants volunteer to participate in a one-on-one interview. Participants for the one-on-one interview will be recruited by asking volunteers to provide their email address on the initial consent form. Participants will be asked questions to provide more detail regarding their social media application usage for professional development. The interviews will be held at the participants' respective school site and will last approximately an hour. The sessions will be audio-recorded using a digital recording device and will be transcribed at a later time for analysis. The final data collection phase will be implemented from September until October of 2015 and will involve recruiting volunteers to participate in a focus group regarding their social media usage for professional development. The focus group will take place at a school site agreed upon by all six participants and will last approximately an hour. The sessions will be audio-recorded using a digital recording device and will be transcribed at a later time for analysis.

III. Possible Risks or Discomforts:

There are no anticipated risks of discomforts known at this time for participation in this study. However, some of the questions regarding social media usage for teaching practices may be personally sensitive. This could be distressing for some people. However, you may stop participating in the study at any time. You can also chose not to answer any question that you may feel uncomfortable with during the any phase of data collection

IV. Potential Benefits:

There are no immediate direct benefits for the participants of this study. However, the findings from the study could have an impact on district leaders seek out professional learning opportunities for teachers. The results may be of scientific interest to those interested in the topic.

V. Costs and Compensation:

There is no cost for participation in this study. For participation in the questionnaire, interview, and/or focus group the participants will be served a variety of baked goods thirty minutes prior to the session beginning and for thirty minutes after the session is completed.

VI. Confidentiality:
The data collected in this study will be confidential. Your name or personal information will not be published or linked to any data. The researcher, Sherry Huckaby, will be the only person to see the data from this study. No names or personal information will be reported in the study, findings, or report.

VII. Withdrawal:
Your participation in this research study is voluntary. You may withdraw from the study at any time, and your withdrawal will not involve penalty or loss of benefits.

For additional information about this research project, you may contact the Principal Investigator, Sherry Huckaby at 706-566-5719 or kerr_sherry@columbusstate.edu. If you have questions about your rights as a research participant, you may contact Columbus State University Institutional Review Board at irb@columbusstate.edu.

I have read this informed consent form. If I had any questions, they have been answered. By signing this form, I agree to participate in this research project. [If participation is dependent upon the participant being 18 years of age or older, you must include a statement here confirming the age.]

In addition, by providing my email address I wish to volunteer to be contacted by the researcher to participate in a one-on-one interview or a focus group in relation to this study to be held at a later convenient time.

My email address is: _____

_____   _____
                            Signature of Participant   Date

Appendix B

Teacher Social Media Questionnaire

For the purpose of this study, social media will defined as interactive websites such as the

following (but are not limited to): Facebook, Linkend, MySpace, Twitter, Instagram,

Teacherspayteachers, Donorschose, teacher blogs, and YouTube.

Demographic Section:

1.   How long have you been teaching?

0   0 to 5 years
0   6 to 10 years
0   10 to 19 years
0   20 years or more

2.   What is your gender?

0   Male
0   Female

3.   What grade level do you teach?

0   Elementary
0   Middle School
0   High School

4.   What is your current teaching position?

0   Classroom teacher
0   Other : _____
0   Administration: _____

5.   What is your highest degree level?

0   Bachelor of Science
0   Master of Science
0   Education Specialist
0   Doctorate

6.   Have you ever used social media for purposes related to your job as teacher?

0   Yes

0   No

If no, briefly explain why you do not use social media related to your job as a teacher.

_____

_____

7.   Which of the following social media applications have you used and how have you used

that application in relation to your job as a teacher (check all that apply)?

0   YouTube

How? _____

0   Teacher Blogs/Wikis

How? _____

0   Facebook

How?_____

0   MySpace

How? _____

0   Twitter

How? _____

0   Linkend

How? _____

0   Websites for teachers such as DonorsChoose, Teacherspayteachers, etc.

How? _____

0   Professional organization websites

How? _____

0 Other: _____

How? _____

0 I do not use social media applications in any method related to my job as a teacher.

8. Which describes the purposes in which you use social media applications related to your

job as a teacher? (Check all that apply)

0 seek to gain new learning
0 obtain resources for the classroom
0 collaborate with other teachers
0 seek new teaching strategies, activities, or ideas
0 deliver instructional content to my students
0 Other: _____
0 I do not use social media in any form related to my job as a teacher.

9. What is the main reason you use social media related to your job as a teacher?

_____
_____
_____

10. When are you more likely to access social media applications related to your job as a

teacher?

0 at school
0 at home
0 on the go on your mobile device
0 I do not use social media.

11. How often do you utilize social media applications related to your job as a teacher?

(Check all that apply to you)

Frequency	For Professional Development	For Instruction
Daily		
Weekly		
Monthly		
A few times a year		

0 I do not use social media in any form related to my job as a teacher.

12.   How did you locate the social media application(s) that you are currently using related to

your job as a teacher?

_____

_____

13.   How do you assess the credibility or validity of the content on the social media

application(s) that you are using in your job as a teacher?

_____

_____

14.   Do you collaborate with other teachers online?

0   Yes
0   No
If yes, how often? _____
If yes, through which social media applications do you use to collaborate with other teachers?
_____
If yes, why do you collaborate with other teachers online through social media applications?
_____

_____

15.   Would you recommend using social media applications for professional development

purposes to other teachers?

0   Yes
0   No
If yes, why?

_____

_____

Appendix C

Interview Protocol

Project Title: **How and Why Are Teachers Using Social Media For Professional Development?**

Date of the interview: _____

Location: _____

Start Time: _____   End Time: _____

Number of the interviewee: _____

[Turn on the audio recorder.]

All interview sessions will start with the following message: "Good afternoon and thank you so much for taking the time to participant in this interview. The purpose of this qualitative mixed methods study is to investigate and understand how and why teachers are using social media for professional development. The following applications are examples of social media applications: Facebook, Twitter, MySpace, blogs, wikis, YouTube, interactive websites such as Teacherspayteachers and DonorsChoose.org. If you wish to proceed and choose to volunteer to participate in this study please read over the consent form and sign when you are ready. Please know that you may stop participating in this study at any time." [Stop and allow the participant time to read and sign the consent form. Once the form has been signed and submitted, continue with the interview.] "This session will be audio recorded on a password protected digital recording device so that I can transcribe the data collected at a later time. All data collected will be confidential and at no time will any names be linked to any data or reported in any fashion. "

Probes to be used when more information is needed or wanted:

1. Can you tell me more?

2. Can you explain what you mean?

3. Why?

4. How?

Interview Session # _____

Participant social media usage category: heavy   moderate   light

Research Question	Interview Question & Response
	1.　　You indicated on your survey that you use social media for purposes related to your job, why do you use social media for those purposes?
	2.　　Which application would you say you use the most? Why?
	3.　　Has the use of social media had an impact on your instruction? How?
	4.　　When you say you get ideas and strategies, what do you mean?
	5.　　Do you leave comments on blogs or websites?
	6.　　When do you access social media applications the most? Why?

Research Question	Interview Question & Response
	7. How do you use YouTube? Are those videos for the students? Have you ever used it for professional videos or any other site like Teachertube or professional organization sites for webinars?
	8. Could you estimate the amount of time you spend using social media applications for purposes related to your job?
	9. How much time on average per day would you say you collaborate with your colleagues onsite?
	10. Have you ever used social media for instructional purpose such as to deliver content other than videos?
	11. Do you feel that you have ever gained new knowledge as a result of using a social media application? Can you give me an example? How has that learning impacted your instructional practice?
	12. Could you describe your most recent experience with face to face professional development? Was it effective? Did you ask to go or were you sent?

Research Question	Interview Question & Response
	Did it pertain to you as a teacher?
	13. Which method of professional development would you prefer, face to face or social media? Why?
	14. Is there anything you would like to add regarding your social media usage for professional development purposes?
	15. How do you determine the credibility of the information being assessed through social media applications?

Appendix D

Focus Group Protocol

Project Title: How and Why Are Teachers Using Social Media For Professional Development?

Date of the focus group: _____

Location of the focus group: _____

Start time of the focus group: _____ End time: _____

 [Turn on the audio recorder.]

All of the focus group sessions will start with the following message: "Good afternoon teachers

and thank you so much for taking the time to participant in this focus group. I know your time is

extremely valuable. The purpose of this qualitative mixed methods study is to investigate and

understand how and why teachers are using social media for professional development.

Examples of social media are (but not limited to): Facebook, MySpace, YouTube, Twitter, blogs,

wikis, interactive websites such as DonorsChoose.org, and Teacherspayteachers. Please know

that you may choose to stop participating in this study at any time. If you wish to volunteer to

participate in this study please read over and sign the consent form when you are ready." [Stop

and allow the participants time to read and sign the consent form. Once all of the forms have been signed and submitted, continue with the interview.] "This session will be audio recorded on a password protected digital recording device so that I can transcribe the data collected at a later time. All data collected will be confidential and at no time will any names be linked to any data or reported. Let's start by going around and introducing ourselves. Please tell me your name, grade, subject you teach, and location you teach, and how many years have you been teaching? I will ask each participant the same questions. However, please feel free to engage in responses to each other's answers or statements."

Probes to be used when more information is needed or wanted:

5. Can you tell me more?

6. Can you explain what you mean?

7. Why?

8. How?

Research Question	Interview Question & Response
	1. You indicated on your survey that you use social media for purposes related to your job, why do you use social media for those purposes?
	2. Which application would you say you use the most? Why?
	3. Has the use of social media had an impact on your instruction? How?

Research Question	Interview Question & Response
	4. When you say you get ideas and strategies, what do you mean?
	5. Do you leave comments on blogs or websites?
	6. When do you access social media applications the most? Why?
	7. How do you use YouTube? Are those videos for the students? Have you ever used it for professional videos or any other site like Teachertube or professional organization sites for webinars?
	8. Could you estimate the amount of time you spend using social media applications for purposes related to your job?
	9. How much time on average per day would you say you collaborate with your colleagues onsite?
	10. Have you ever used social media for instructional purpose such as to deliver content other than videos? Could you explain more?
	11. Do you feel that you have ever gained new knowledge as a result of using a social media application? Can you give me an example? How has that learning impacted your instructional practice?

Research Question	Interview Question & Response
	12. Could you describe your most recent experience with face to face professional development? Was it effective? Did you ask to go or were you sent? Did it pertain to you as a teacher?
	13. Which method of professional development would you prefer, face to face or social media? Why?
	14. Is there anything you would like to add regarding your social media usage for professional development purposes?
	15. How do you determine the credibility of the information being assessed through social media applications?

Appendix E

Interview Informed Consent Form

You are being asked to participate in a research project conducted by Sherry Huckaby, a doctoral student in the Educational Leadership program at Columbus State University. The doctoral committee chair for this study is Dr. Jan Burcham.

I. Purpose:

The purpose of this project is to investigate how and why kindergarten through twelfth grade public school teachers in a southeastern part of the United States are using social media for professional development.

II. Procedures:

The first phase of data collection for this study will be carried out in August 2015 and will involve providing volunteer participants with a questionnaire regarding how and why they use social media applications for professional development. This questionnaire will be administered by paper and pencil at each of the seven research site locations. The questionnaire will take approximately fifteen minutes to complete. The second phase of data collection for this study will be carried out between September and October 2015 and involve asking participants volunteer to participate in a one-on-one interview. Participants for the one-on-one interview will be recruited by asking volunteers to provide their email address on the initial consent form.

Participants will be asked questions to provide more detail regarding their social media application usage for professional development. The interviews will be held at the participants' respective school site and will last approximately an hour. The sessions will be audio-recorded using a digital recording device and will be transcribed at a later time for analysis. The final data collection phase will be implemented from September until October of 2015 and will involve recruiting volunteers to participate in a focus group regarding their social media usage for professional development. The focus group will take place at a school site agreed upon by all six participants and will last approximately an hour. The sessions will be audio-recorded using a digital recording device and will be transcribed at a later time for analysis.

III. Possible Risks or Discomforts:
There are no anticipated risks of discomforts known at this time for participation in this study. However, some of the questions regarding social media usage for teaching practices may be personally sensitive. This could be distressing for some people. However, you may stop participating in the study at any time. You can also chose not to answer any question that you may feel uncomfortable with during the any phase of data collection

IV. Potential Benefits:
There are no immediate direct benefits for the participants of this study. However, the findings from the study could have an impact on district leaders seek out professional learning opportunities for teachers. The results may be of scientific interest to those interested in the topic.

V. Costs and Compensation:
There is no cost for participation in this study. For participation in the questionnaire, interview, and/or focus group the participants will be served a variety of baked goods thirty minutes prior to the session beginning and for thirty minutes after the session is completed.

VI. Confidentiality:
The data collected in this study will be confidential. Your name or personal information will not be published or linked to any data. The researcher, Sherry Huckaby, will be the only person to see the data from this study. No names or personal information will be reported in the study, findings, or report.

VII. Withdrawal:
Your participation in this research study is voluntary. You may withdraw from the study at any time, and your withdrawal will not involve penalty or loss of benefits.

For additional information about this research project, you may contact the Principal Investigator, Sherry Huckaby at 706-566-5719 or kerr_sherry@columbusstate.edu. If you have questions about your rights as a research participant, you may contact Columbus State University Institutional Review Board at irb@columbusstate.edu.

I have read this informed consent form. If I had any questions, they have been answered. By signing this form, I agree to participate in this research project. [If participation is dependent upon the participant being 18 years of age or older, you must include a statement here confirming the age.]

In addition, by providing my email address I wish to volunteer to be contacted by the researcher to participate in a one-on-one interview or a focus group in relation to this study to be held at a later convenient time.

My email address is: _____

_____   _____
Signature   Date

Appendix F

Focus Group Informed Consent Form

You are being asked to participate in a research project conducted by Sherry Huckaby, a doctoral student in the Educational Leadership program at Columbus State University. The doctoral committee chair for this study is Dr. Jan Burcham.

I. Purpose:
The purpose of this project is to investigate how and why kindergarten through twelfth grade public school teachers in a southeastern part of the United States are using social media for professional development.

II. Procedures:
The first phase of data collection for this study will be carried out in August 2015 and will involve providing volunteer participants with a questionnaire regarding how and why they use social media applications for professional development. This questionnaire will be administered by paper and pencil at each of the seven research site locations. The questionnaire will take approximately fifteen minutes to complete. The second phase of data collection for this study will be carried out between September and October 2015 and involve asking participants

volunteer to participate in a one-on-one interview. Participants for the one-on-one interview will be recruited by asking volunteers to provide their email address on the initial consent form. Participants will be asked questions to provide more detail regarding their social media application usage for professional development. The interviews will be held at the participants' respective school site and will last approximately an hour. The sessions will be audio-recorded using a digital recording device and will be transcribed at a later time for analysis. The final data collection phase will be implemented from September until October of 2015 and will involve recruiting volunteers to participate in a focus group regarding their social media usage for professional development. The focus group will take place at a school site agreed upon by all six participants and will last approximately an hour. The sessions will be audio-recorded using a digital recording device and will be transcribed at a later time for analysis.

III. Possible Risks or Discomforts:
There are no anticipated risks of discomforts known at this time for participation in this study. However, some of the questions regarding social media usage for teaching practices may be personally sensitive. This could be distressing for some people. However, you may stop participating in the study at any time. You can also chose not to answer any question that you may feel uncomfortable with during the any phase of data collection.

IV. Potential Benefits:
There are no immediate direct benefits for the participants of this study. However, the findings from the study could have an impact on district leaders seek out professional learning opportunities for teachers. The results may be of scientific interest to those interested in the topic.

V. Costs and Compensation:
There is no cost for participation in this study. For participation in the questionnaire, interview, and/or focus group the participants will be served a variety of baked goods thirty minutes prior to the session beginning and for thirty minutes after the session is completed.

VI. Confidentiality:
The data collected in this study will be confidential. Your name or personal information will not be published or linked to any data. The researcher, Sherry Huckaby, will be the only person to see the data from this study. No names or personal information will be reported in the study, findings, or report.

VII. Withdrawal:
Your participation in this research study is voluntary. You may withdraw from the study at any time, and your withdrawal will not involve penalty or loss of benefits.

For additional information about this research project, you may contact the Principal Investigator, Sherry Huckaby at 706-566-5719 or kerr_sherry@columbusstate.edu. If you have questions about your rights as a research participant, you may contact Columbus State University Institutional Review Board at irb@columbusstate.edu.

I have read this informed consent form. If I had any questions, they have been answered. By signing this form, I agree to participate in this research project. [If participation is dependent upon the participant being 18 years of age or older, you must include a statement here confirming the age.]

In addition, by providing my email address I wish to volunteer to be contacted by the researcher to participate in a one-on-one interview or a focus group in relation to this study to be held at a later convenient time.

My email address is: _____

_____   _____

                       Signature of Participant   Date