

Running head: IS SOCIAL MEDIA BENEFICIAL FOR TEACHERS?

**IS SOCIAL MEDIA, AS A PROFESSIONAL LEARNING DEVELOPMENT
TOOL, BENEFICIAL FOR TEACHERS?**

A Doctoral Capstone Project

Submitted to the School of Graduate Studies and Research

Department of Secondary Education and Administrative Leadership

In Partial Fulfillment of the
Requirements for the Degree of
Doctor of Education

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August 2020

IS SOCIAL MEDIA BENEFICIAL FOR TEACHERS?

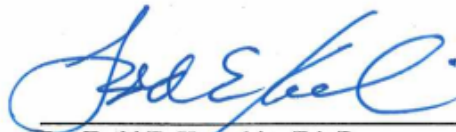
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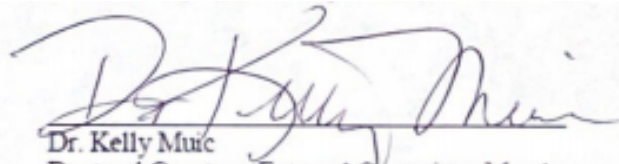
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TABLE OF CONTENTS

| | |
|--|-----------|
| List of Tables | vi |
| List of Figures | vii |
| Abstract | viii |
| CHAPTER I: INTRODUCTION | 1 |
| 1.1 NEED FOR EFFECTIVE PROFESSIONAL DEVELOPMENT | 1 |
| 1.2 BACKGROUND | 2 |
| 1.2.1 Reflection | 2 |
| 1.2.2 Educational Experience | 3 |
| 1.3 OUTCOMES DESIRED | 4 |
| 1.4 FINANCIAL IMPLICATION | 4 |
| CHAPTER II: LITERATURE REVIEW | 6 |
| 2.1 INTRODUCTION | 6 |
| 2.2 THE CALL FOR PROFESSIONAL DEVELOPMENT | 7 |
| 2.3 THE HISTORY OF PROFESSIONAL DEVELOPMENT | 9 |
| 2.4 CURRENT TRENDS IN PROFESSIONAL DEVELOPMENT | 13 |
| 2.5 EFFECTIVE PROFESSIONAL DEVELOPMENT | 17 |
| 2.6 PROFESSIONAL LEARNING COMMUNITIES | 20 |
| 2.7 HISTORY OF SOCIAL MEDIA | 28 |
| 2.8 TWITTER AS A PROFESSIONAL LEARNING COMMUNITY | 29 |
| CHAPTER III: METHODOLOGY | 34 |
| 3.1 INTRODUCTION | 34 |

| | |
|---|-----------|
| 3.2 PURPOSE | 35 |
| 3.3 SETTING AND PARTICIPANTS | 36 |
| 3.4 INTERVENTION and RESEARCH PLAN | 42 |
| 3.5 RESEARCH DESIGN, METHODS and DATA COLLECTION | 45 |
| 3.6 VALIDITY | 48 |
| 3.7 SUMMARY / TRANSITION | 50 |
| CHAPTER IV: DATA ANALYSIS AND RESULTS | 53 |
| 4.1 INTRODUCTION | 53 |
| 4.2 DATA ANALYSIS | 54 |
| 4.3 RESULTS | 57 |
| 4.4 DISCUSSION | 69 |
| 4.5 SUMMARY / TRANSITION | 71 |
| CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS | 73 |
| 5.1 INTRODUCTION | 73 |
| 5.2 CONCLUSIONS | 75 |
| 5.3 FUTURE DIRECTIONS FOR RESEARCH | 82 |
| 5.4 SUMMARY / CONCLUDING STATEMENT | 85 |
| DEFINITION OF TERMS | 88 |
| REFERENCES | 90 |
| Appendix A Consent Form | 102 |
| Appendix B Institutional Review Board Approval | 104 |
| Appendix C Survey Instrument | 106 |

List of Tables

| | | |
|----------------|--|----|
| Table 1 | Gender and Years of Service of Staff Members | 48 |
| Table 2 | Demographic Data of Survey Teachers | 49 |
| Table 3 | Teachers with No Use of Twitter | 62 |
| Table 4 | Teachers with Use of Twitter | 63 |
| Table 5 | Twitter Frequency | 59 |

List of Figures

| | | |
|-----------------|---|----|
| Figure 1 | Teaching Experience | 46 |
| Figure 2 | Teacher Age Range | 46 |
| Figure 3 | Years with Twitter Account | 48 |
| Figure 4 | District Costs for Professional Development | 52 |
| Figure 5 | Engagement Usage of Twitter | 53 |
| Figure 6 | Teaching Experience at the High School | 61 |
| Figure 7 | High School Teachers Age Range | 61 |
| Figure 8 | Teachers with No Use | 62 |
| Figure 9 | Teaching with Twitter | 63 |

Abstract

The purpose of this research project was to investigate a method for a small rural school district to provide fiscally responsible, effective, and personalized professional development to all of its staff members. The use of social media, such as Twitter, has allowed teachers the ability to connect with other educators, develop professional learning networks, share ideas, and seek out teaching strategies that would allow teachers to connect with all students at little to no cost. This research study investigated how teachers in a small, rural, southwestern Pennsylvania high school utilized social media as a means to grow professionally, connect with other professionals, and collaborate with other professionals around the world. The researcher surveyed a population of 28 high school teachers with various years of service. Teachers were surveyed on their use of Twitter and how the app has impacted their professional development. This research also addressed how Twitter has impacted the teachers' professional development and how they utilized it with other professionals. During the study, the teachers were asked how Twitter allowed them to connect with other teachers, professionals, and new content. The research also investigated whether or not Twitter had the ability to change teachers' knowledge of content, and if it allowed teachers to grow professionally. Finally, the research conducted a finding of the finance of professional development and compares the costs associated with the professional learning communities to the costs of using social media for the development of professionals.

CHAPTER I

Introduction

The Need for Effective Professional Development

Professional development remains a financial problem for small, rural school districts. Districts that are limited with their budgets have a difficult time finding ways to provide meaningful professional development to all staff. They provide professional development that may be cheap, unorganized, and in a manner that is presented ineffectively. The professional development that is presented to their staff may be irrelevant to certain content and subject areas, and therefore ineffective to many classroom teachers. Professional development may be repetitive over time or it may be a state mandate that the presenter feels uncomfortable with the topic.

Districts are always looking for ways to save money and cut expenditures from their budget. Effective personalized learning and cheap professional development is always a demand for leaders in districts that are financially strapped. Districts look for effective and innovative ways to obtain a successful school of high standards and high student achievement. With today's need-to-know-now technology, is social media as a professional learning development tool beneficial for teachers within small, rural districts?

Reflection

Smaller districts that do not have the financial support and resources that larger districts have access to are forced to find creative ways to be resourceful. This focus has resulted from collecting data from small, rural schools. Districts that are financially strapped look for ways to save on spending and to reduce costs in order to cut professional development opportunities that do not produce effective results. The need for schools to look for current trends and to connect with other professionals can now be done at a minimal cost through the use of social media.

The use of social media in small districts has allowed teachers to connect with other teachers and professionals across the globe. Teachers have been able to collaborate with others and seek out answers to questions that may improve student achievement and allow them to grow their professional learning communities. Through professional learning communities within social media platforms, teachers are able to research teaching strategies, explore new teaching methods, ask questions, and follow professionals that produce effective results.

These attributes of professional learning communities and the use of social media come with a very small price tag. Most social media applications that are used by teachers, such as Twitter, Facebook, and Instagram, are free and are used by professionals to share ideas and gain answers to problems. Teachers can create profiles on Twitter, connect with other colleagues, professional groups, and seek out educational adventures with no costs at all. Teachers may also be able to connect with others on their own time and seek immediate answers as needed. This function of Twitter has allowed districts the ability to provide professional learning opportunities at no cost to the district

and provide professional development hours to teachers without sending them out of their classrooms.

The ability to effectively use Twitter as a tool for professional development opportunities have led to questions for district leaders. Leaders want to know how a tool such as social media can impact teachers, and how social media can replace the traditional lecture style of professional development. These questions have led to the following lead questions for this research:

1. How has social media impacted professional development at Frazier High School?
2. What are the impacts (if any) of using social media on teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions?
3. What professional growth changes have occurred as a result of using social media as a teacher?

Educational Experience

During the time this research was occurring, the researcher was the high school principal of a small rural school district, approximately 30 miles south of Pittsburgh. The district had 1100 students and operated one high school, one middle school, and one elementary school. There were 80.5 teachers within the district, and 25 of the teachers were full-time teachers at the high school. There were 350 students enrolled at the high school in grades 9-12. There were eight Advanced Placement courses, dual enrollment opportunities through two local colleges, and a local career and technical center that students in grades 10-12 attended. The district operated on a seventeen-million-dollar budget and has consistently raised taxes each year since 2014.

The researcher studied the impact of social media, specifically Twitter, on the 25 high school teachers, as well as three teachers that were shared between the middle school and high school. All 28 teachers were given access to the same study and all teachers had the same opportunity throughout the study to participate or decline.

Outcomes Desired

If the research proved that social media as a professional learning development tool was beneficial for teachers in small rural schools, this would have a potential major impact on how professional development was provided to teachers. The research could save the district thousands of dollars and provide effective professional development that was specific to the teacher's content-area. The outcome from this study would allow teachers to gain professional learning at their convenience and would be specific to the content area they were teaching. The outcome would also allow teachers to research specific learning strategies as needed for their classroom to help all students reach their learning outcomes.

Financial Implication

The financial implication of this study would save the district in expenditures for professional development. By implementing and utilizing a free social media platform, teachers would be able to connect with other professionals on their own time to improve their pedagogy and help the achievement of all students. The district would benefit financially from the free sources of a social media platform and save on the costs of professional development. Expenses from the study would occur from the presentation of social media as a professional learning development tool, with the majority of the budget expense being within the first year. After the first year of training, the district

would have minimal expenses in the form of training teachers for the use of professional development and would know how to properly and effectively use this resource to benefit the teacher when growing professionally.

CHAPTER II

Literature Review

Introduction

The scope of this research is to identify the benefit of social media as a professional learning community (PLC) for teachers in small rural schools. Professional development opportunities and learning networks where educators have exchanged ideas, acquired new knowledge, and received feedback have existed almost since the beginnings of education itself (Kabilan, Adlina, and Embi, 2011; Killion, 2011). PLCs have been an opportunity for educators to gather and receive new ideas and strategies for their classrooms.

Educators have always been able to ask questions and they always try to seek out the answers. This review looks at literature relevant to the research of PLCs and integrates information gained from professional development within a PLC. Additionally, this review examines the use of social media, specifically Twitter, by educators in small rural schools as a means of professional development. Twitter has become more acceptable by educators in the past decade within their profession. Educators seek opportunities for professional development and are implementing social media platforms for growing their professional networks. The goal of this literature review is to see if the use of social media as a professional learning development tool is beneficial for teachers.

To understand PLCs and professional development for teachers, a study of a review is necessary to determine the current state of research in the field. To search for and identify literature relevant to this research, this researcher utilized EBSCOhost in

ERIC databases. This researcher also performed different searches via Google Scholar and ProQuest (Dissertations and Theses database). During the search process, this researcher looked for subject matter that included: "teachers and professional development," "professional development," "social media," "social media and teachers," "twitter and teachers," and "social media and professional development."

Throughout this research, there were studies conducted on the practice of social media as professional development, however, not many studies were centered on small, rural districts. Many of the studies identified the strengths and weaknesses of social media tools. This researcher looked into the use of social media and the history of professional development. The study also included the history of social media, the impact of professional development, and the importance of professional learning communities for educators.

The Call for Professional Development

Professional development allows teachers the opportunity to grow in their profession. Provided by the school or district, professional development can cover a variety of topics. The main goal of professional development is to assist and prepare teachers by giving them the knowledge and skills they need to prepare all learners and assure that they achieve high standards of learning and growth (U.S. Department of Education, 1996). Effective professional development is key for today's high-stakes educational spotlight. In public schools, professional development is constantly under scrutiny for its effectiveness. Lawmakers and taxpayers are always questioning the use of professional development and any correlation with the achievement of student learning.

Teacher and staff professional development needs to be effective if schools are going to change. Teachers' high-quality professional development and the effects of increased teacher knowledge are observed with student performance across academic settings (Darling-Hammond, 1999). Schools must be willing to accept that teachers are at the center of student achievement. Districts and states are being held to high standards and teachers must be willing to accept the challenge that allows them to build upon their professional backgrounds. Professional development allows teachers to build upon the successes of the school community. The district and schools must create high expectations through comprehensive planning that will lead to achievable goals. In addition, teachers must create a clear understanding of the social, cultural, and economic differences students can bring to the classroom (Fuhrman, 2003).

Professional development must be relevant to every classroom teacher and must be adopted in the curriculum. Effective professional development that is geared towards the success of the students must support the needs of the learners and be current with the skills that will assist students in solving problems. The development of professional programs for teachers should meet the achievement needs of the school community. According to Wagner (2002), change must begin from the context of the classroom and the community and must be aware of the system goals and applicable research.

For students to become today's problem solvers, districts must invest in their teachers and provide training that allows for growth in student achievement. A study by the National Commission on Teaching and America's Future (1996) demonstrated that districts must make investments in teacher knowledge and skills, which will result in a greater increase in student growth than any other distribution of educational funding.

According to the National Research Council (2004), there is a demand for professional development that is relevant to the classroom teacher. This is evident as teachers lack the training to interpret data about their students. From this information, teachers are unable to meet the learning needs for students that are struggling. Teachers may also not have enough additional professional development to know strategies that help them deliver the content of the discipline they are teaching. This lack of professional knowledge may lead to instruction that is lacking the delivery that is both engaging the student and challenging the student to think conceptually. Professional development must be expansive and allow teachers to grow their content knowledge and focus on improving student outcomes and increasing student experiences.

Every teacher has a different teaching technique and methods. Teachers develop differently through age differences, college-experiences, and personal experiences as a student. Just like students, experiences and knowledge bases varied with classroom teachers (Lortie, 1975). According to Cochran-Smith and Lytle (1999), knowledge from experience combined with knowledge generated from teaching episodes leads to implicit and explicit know-how of teaching. Since teaching styles vary and teaching needs are different, teachers should have the ability to seek out professional development that allows the educator to seek interests and needs that will help their students be successful. This style of professional development will allow teachers to network with others that have similar interests with curriculum, instructional delivery, or classroom issues.

The History of Professional Development

According to Corey (1957), in the 19th and early 20th centuries, teachers lacked a good education and were therefore "deficient" in teaching skills. Teacher training that

was presented through in-service education focused on correcting teacher deficiencies by large group instruction at teacher institutes. In-service teacher training was first implemented in the 1850s to assist teachers in improving their instructional practices. This training was to help teachers acquire the techniques necessary to improve on their instructional practices in the classroom. Professional development became the gathering of teachers to discuss and share their knowledge within their schools.

In the 1930s, teacher training shifted towards workshops, which led to the belief that the training programs offered were the main purpose. The training was to help teachers reduce the areas of needs, and to help teachers grow their knowledge. The prior purpose of professional development focused on correcting individual teacher deficiencies, while in-service programs evolved towards generating cooperative, problem-solving approaches to instruction (Corey, 1957).

According to Tyler (1987), twenty men in 1930 decided to form the Society for Curriculum Study. This group began to develop into supervision and eventually merged with the Directors and Supervisors of Instruction group of the National Education Association. Together, they formed the Association for Supervision and Curriculum Development (ASCD), which remains a powerful force in the professional development of teachers (Tyler, 1987). As the growth of educational committees continued through the 1930s, the Work Relief in Education program hired unemployed educators to teach other unemployed adults (Cook, 1977). A study was conducted over eight years that concentrated on transforming secondary education for teachers and students, known as the Progressive Education Association's Eight-Year Study. Additionally, this research

created professional development options for teachers called an "in-service workshop" (Tyack and Cuban, 1995).

During the 1950s, school criticism began caused by fear, memories of difficult times for families, and social turmoil. Historic events such as Sputnik and World War II lead to uncertainty and reform to education in the 1960s. President Lyndon B. Johnson advocated that the field of education pay attention to research on teaching and learning (Tyack and Cuban, 1995). There was a need for mathematics and science as the space race began. Faced with such rapid change, the use of new technology like overhead projectors, tape recorders, films, and television frustrated teachers, as they couldn't effectively utilize the innovation in their profession (Fenstermacher and Berliner, 1985).

In the 1970s, President Nixon's Watergate Scandal caused distrust with the American public. This filtered into other areas as well, including education. According to Tyack and Cuban (1995), there was a continuation of some of the education reforms from the 1960s that carried over to the 1970s. If schools were going to fix the problems with society, then teachers were going to need coaching and professional development for their efforts to be successful. The 1970s became a mass marketing era intended to give solutions to the problems. Professional development was becoming more centralized within the building with teachers and administrators conducting their training.

In the 1980s, President Reagan released the report, *A Nation at Risk*, to address the assertion that schools within the United States were failing. This report set off a wave of reform from local, state, and federal officials. The report made recommendations for correcting public education, including professional development

for teachers. In the late 1980s, President Bush implemented national standards and teachers began to feel the pressure. At this time, teaching to the test became popular, while teachers began to feel like they were caught in the middle.

During President Clinton's administration, they enacted a standards-based vision named the Elementary and Secondary Education Act (ESEA). This act challenged the nation to implement assessments that are aligned to the standards. ESEA was implemented to hold schools accountable for meeting academic standards and challenged classroom teachers to meet the needs of all students and increase student achievement.

With the turn of the century, President Bush enacted the No Child Left Behind Act (NCLB) of 2001. This act included that every child would be taught by highly qualified teachers and applied to all subjects, including the arts and humanities. NCLB included teachers that provided instruction to students that had limited English proficiency and taught students regardless of any learning disability.

One of the key points of NCLB was to address the need for school improvement and to improve student achievement. During the years of NCLB, schools were held accountable and teachers, regardless of certification, were trained from administration to see that all students were successful and showing academic growth. According to the United States Department of Education (2009), the quality of professional development that teachers receive is critically important if professional development is to have the intended effects of improving instruction and student learning.

As a result of NCLB, schools began to implement professional development that included activities to increase the teacher's knowledge of their content area. According

to No Child Left Behind (2001), professional development is defined as activities that "are high quality, sustained, intensive, and classroom-focused to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom; and are not 1-day or short-term workshops or conferences..." (*Title IX*, Section 9101(34)).

From the 1960s, professional learning communities were introduced as a way for teachers in isolation to meet and work with other teachers in similar content areas. Created from the meaningless and disconnected staff meetings, most teachers learned outside of the school day and away from the building. Most educators had to enroll in evening classes or programs for professionals even if the content was not specific to their classroom assignments. Rick DuFour and Michael Fullan have provided meaningful guidance to educators on the concept of developing professional learning communities. With the emergence of NCLB comes a focus on learning rather than teaching, teachers who work collaboratively, and are personally responsible for student academic results (DuFour, 2004).

Current Trends in Professional Development

America is known for its ability to discover solutions for illnesses, land men on the moon, invent self-driving cars, and develop thumbnail size computers. However, America continues to struggle with its ability to change the educational system. Education has evolved from the uniform structure to a more flexible way to deliver instruction. Professional development should also follow along with classroom instruction and create a chance for teachers to enhance their own professional development.

According to the U.S. Department of Education (2007), educators must be willing to accept new and innovative ways to deliver instruction and engage in professional development, if it is an expectation for students to become the world's innovators. Today's administrators must find ways to deliver meaningful professional development. Professional development must be presented in an effective way that inspires buy-in from the staff. The new ideas must foster trust and interest with the staff. Leadership must find ways to see that the new ideas are implemented, and they must continue to support the teachers as they strive for these goals.

Professional development is a critical element of comprehensive or “systemic” reform (American Federation of Teachers, 2008). Professional development is a key resource for education reform (Darling-Hammond and McLaughlin, 2011). With changes that districts and states adopt, school reform must occur for student success. Changes in the teaching profession have created a need for professional development that can respond to the teachers’ questions and concerns “just-in-time” and “on the spot” (Plair, 2008). According to Lock (2006), the phrase “just-in-time” describes professional development that is responsive, timely, and effective. Schools will need to change curriculum, assessments, teaching styles and strategies, and all elements of education. Without proper professional development, improved student achievement will not happen in today's schools.

According to the American Federation of Teachers (2008), professional development should deepen and broaden knowledge of content. Teachers not strong in their content area will not be able to deepen the content knowledge for the students. Teachers must collaborate and be able to discuss the concepts and how they are

connected through the grade levels. Professional development should allow teachers to be able to explain how students should understand the content. This happens with the knowledge of how the teaching and learning process occurs for their students. The best available research should be provided to the teachers along with data that supports the change. Additionally, without a connection to state standards and curriculum, professional development will likely be ignored by and irrelevant to the educator. After all, professional development must be instrumental to the success of student achievement.

Professional development lectures for teachers do not work any differently than classroom lectures for students. Professional development still occurs through a lecture style, allowing teachers no time to connect to their curricula and quickly creating disconnect from the lecture. Most topics include school safety, classroom management, special education regulations, and on some occasions, literacy. For most professional development, when the session ends so does the support that goes along with it. Professional development provides an opportunity for teachers to learn new skills and strategies.

With traditional professional development, there is very little to no time for follow-up or reflection. The time allotted for teacher development programs have been criticized for being unable to provide the follow-up guidance necessary to implement new curricula and teaching strategies (Barnett, 2002). Even when teachers are exposed to conventional one-day workshops or afternoon training sessions associated, professional development programs fail to provide sustained mentoring opportunities at

various stages throughout their career (Wei, Darling-Hammond, Andree, Richardson, and Orphanos 2009).

In today's ever-changing hold-accountable profession, educators are busy with full schedules, activities after school, lesson planning, and grading. Districts and school leaders are being held accountable for student achievement. Teachers are now accountable for college and career readiness. With the addition of initiative after initiative, teachers are provided minimal time for prep periods, lunch breaks, and face-to-face time for professional conversations with their peers. As districts continue to look for ways to save money, not replacing teachers that retire is one option in which many partake. Teachers are also required by the Commonwealth of Pennsylvania to undertake professional development for their licenses to remain in the "active" status.

Guskey (2000) suggests that professional development should meet the needs of the teachers, paraprofessionals, and other staff members, including principals. In the Commonwealth of Pennsylvania, educators have been mandated to continue professional development with the passing of Act 48 of 1999. According to Act 48 and PERMS (1999), Act 48 requires all Pennsylvania Educators holding Pennsylvania public school certifications (including Instructional I and II, Educational Specialist I and II, Administrative, Supervisor, Letters of Eligibility, and all vocational certificates) to participate in ongoing professional education.

Professional development can involve substantial time away from the classroom, a considerable amount of planning, travel-time, the conference cost with registration, hotels, food, and time for attending a presentation or workshop. Professional development is also one of the leading reasons teachers are out of their classrooms.

Students are left with a substitute teacher relaying information to students or just monitoring the class. However, recent trends in education and education financing have put constraints on schools and districts in terms of professional development opportunities and resources being offered and made available (Killion, 2011). Barlow (2005) states that, “The use of PLCs is the best, least expensive, most professional (sic) rewarding way to improve schools... Such communities hold out immense, unprecedented hope for schools and the improvement of teaching” (pp. 137-138).

Effective Professional Development

According to the American Federation of Teachers, AFL-CIO (2008), most teachers know what works with professional development. Teachers do not want to be lectured and they do not want professional development that is irrelevant to their profession. Professional development should be able to be implemented within the classroom. Professional development should be differentiated so that the learning opportunities meet the needs of the teacher and the needs that the students have within their classroom or school. Teachers want professional development that engages them in inquiry-based and focused learning. Teachers should have professional development that utilizes innovative technology and permits the teacher to engage in interest-driven learning.

Professional development should be Praxis-oriented, allowing educators to continually learn from each other as they engage in the interplay of reflection and action (Reich et al., 2011). Studies by Bauer (2010), King (2011), and Reich et al., (2011) have shown extended experiences of professional learning that are ongoing, rather than concentrated, are more beneficial. Additionally, effective professional development

should engage educators in learning that is both dynamic and flexible; it should take advantage of mentors and both formal and informal modes of learning to enhance teachers' awareness of their strengths, weaknesses, practices, and philosophies (Bauer, 2010; Kabilian et al., 2011).

Districts should pre-assess the needs of the educators similar to a pretest that would be given by a teacher to their students. From the pre-assessment, the district could create sessions that would meet the needs of the teachers. Teachers that are experienced in the specific area(s) of professional development could then be exempt or even present as session leaders. Teachers could then learn from their colleagues, which could increase their efficacy.

By having teacher-led professional development, teachers can build relationships with colleagues, universities, and other organizations. This style of professional development also erases "one and done" professional development. Teachers can follow-up with self-reflections, discussions after professional development, and to hear successes and struggles amongst their colleagues. For this teacher-led professional development to work, schools must schedule a time for teachers to plan lessons, observe others' classrooms, analyze the work of the students, and reflect on their instruction.

With beneficial professional development, teachers can grow and meet the needs of all their students. According to Huffman (2012), "Through appropriate professional development/training of faculty, social networking tools can be utilized to enhance the educational experience of students by extending the learning beyond the walls of the traditional classroom." Districts wanting to improve on student learning and increase employee job satisfaction must present professional development that is effective.

Professional development programs that are effective have specific goals and objectives, engage teachers intellectually, actively involve teachers, consist of multiple sessions over a period of time, and provide an opportunity for all teachers to learn with, and from, their colleagues. They also provide opportunities for teachers to participate and adopt new strategies (French, 1997).

Professional development that is effective should help the teacher become a better professional. Professional development should assist the teacher in teaching strategies, methodology, pedagogy, and classroom strategies. If professional development does not improve the success of student learning, then this time utilized for professional development is wasted time and resources. With the increase of online learning, teachers are looking for ways to improve their classroom performance by taking professional development into their own hands. The response to online professional development opportunities provides positive professional growth and overwhelming teacher enthusiasm as a solution for meeting professional development needs (Marrero et al, 2010).

Online professional development has led to an increase in professional learning communities. Professional learning communities (PLCs) allow educators to meet and discuss like-minded matters, discover teaching strategies, and/or explore the latest in the educational world. With the growing connectivity of online educators, teachers are now able to connect with other teachers on their schedule, discussing topics of choice. Educators are quick to realize with PLCs that professional development does not need to happen in person or in real-time. PLCs have enabled educators to engage in high-quality professional development and provide them greater access to educators and education

specialists. Berge (1995) suggests interacting with relevant content and interpersonal interaction between professional learning communities is critical to meaningful learning.

Educators know that collaboration is key to a student's success in today's world. Teachers can also improve their pedagogy through collaboration with each other and online PLCs. Isolation is no longer the key to a successful learner. Students learn best through an environment where collaboration amongst their peers is evident. With online PLCs, the learner (teacher) can experience face-to-face collaboration with other colleagues. This online experience creates an environment where the educator can discuss, observe, and reflect. According to Bonk, Wisner, and Nigrelli (2004), these activities increase the relevance of the learning experience.

Professional Learning Communities

During President Ronald Reagan's administration, "A Nation at Risk" was published, which was considered a milestone in the American educational system. According to Scribner, Cockrell, Cockrell and Valentine (1999), teacher professionalization and teacher development have become significant issues to discuss in school development. During the 1990s, learning communities were described as "a place where students and adults alike encourage everyone else's learning" (Roberts and Pritt, 2008).

Teachers participate in professional development to "develop, implement, and share practices, knowledge, and values that address the needs of all students" (Schlager, Fusco et al., 2004). According to Roberts and Pruitt (2008), within schools the learning community is a continuous procedure of collaborative interactions among teachers,

students, leaders, staff, and parents by the way of conversation to help develop learning and life. This in turn helps individuals better contribute to the learning community.

Seashore Louis (2003) developed their view of PLCs to help teachers expand their sights and goals from sharing individuals' actions to building a common culture, which developed continued collaboration in more substantiated, knowledgeable ways. Teachers tend to give more detail to students' outcomes by testing and examining their own ideas. According to Hord et al. (2009), a PLC is a team in which teachers have universal views on collaborating, sharing, reflecting, and the needs of their teaching and learning practice. Many other researchers described the PLC as a positive environment where teachers work and interact with others to achieve the common goal of student accomplishments under the powerful system led by an effective school leader (Hord, Roussin and Sommers, 2009).

DuFour et al. 2006) defined the term PLC as, "Educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve" (p. 217). This paradigm shift, which has created many implications on schools, has moved the focus from teaching to learning. This shift assumes that the main goal of public education is not to assure that students are just taught, but that they also learn. As the school shifts forward, every professional in the building must engage with colleagues in the ongoing exploration of the three crucial aspects of a PLC. PLCs have caused an isolated teacher-centered approach to change the focus to instruction that creates a student-centered approach. Within the student-centered approach, teachers work independently and collaboratively, focusing on a shared mission of collective capacity building, identifying learning gaps, and

developing effective instructional practices to fulfill the needs of all students. The school administrators, beginning to understand the effectiveness of PLCs, started to invest resources and time into one by restructuring institutional systems so teachers could gather and discuss enhancing curriculum knowledge, share ideas and develop local standards and assessments (Darling-Hammond 1996).

With a PLC, educators can focus on solving the concerns of their school. DuFour, DuFour, Eaker, and Many (2006) describe three important elements of a successful PLC: focus on learning, collaborative culture, and results-oriented thinking. The role of the principal changes when a school implements a PLC that focuses on learning instead of teaching. As principals shift their focus to instructional results, they have less time to focus on teachers' lesson plans.

The success of PLCs largely depends on collective inquiry, reducing isolation among teachers, and the reflection on current institutional practices. PLCs allow teachers the ability to share responsibilities for the learning of all students and create capacity for learning. Student success becomes the only institutional priority, and the focus moves away from excuses and blame to an approach focused on learner individual needs (DuFour et al. 2006).

Reeves (2010) studied the effects of professional development on student achievement gains. He discovered when schools implemented PLCs, student achievement increased. This only happened when schools worked together and participated in deep discussions that resulted from the analysis of student data. Teachers discussed planning, implemented instructional strategies, and consistently monitored student results. Highly effective teachers must model this process by collaborating,

engaging in ongoing professional development, reflecting through communication and feedback, and using instructional technology tools to enhance instruction (Reich, Levinson, and Johnston 2011; Trust 2012). Reeves' study, which looked at schools in the United States and Canada, resulted in the conclusion that the deeper the PLC was implemented within the school, the more student achievements resulted. Interpreting his analysis, Newmann and Wehlage (1995) stated that, "If schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activity, and collective responsibility among staff" (p. 37).

DuFour et al. (2006) found that schools must also give teachers time to analyze and discuss state and district curriculum documents. More importantly, teacher conversations must quickly move beyond "What are we expected to teach?" to "How will we know when each student has learned?" When teachers meet in a PLC, teachers can gather to discuss and share data. These teachers meet to achieve a goal specific to their grade level and their school. During the PLC, teachers discuss the data and develop a plan to meet the goal through accountability and ever-changing classroom practices. Timperley (2008) even states that "Findings from many studies suggest that participation in a professional community with one's colleagues is an integral part of professional learning that impacts positively on students" (p. 19).

DuFour (2007) observed that if administrators were to advocate for a learning community approach, then they were obligated to create structures that make teacher collaboration meaningful. He also stated that the following guidelines are met to ensure the proper methods are in place for collaboration. According to DuFour (2007), these

guidelines are (a) teachers have time available to meet during the contractual day, (b) clear priorities are drawn for teacher collaboration, (c) teams have the appropriate knowledge base available to make decisions, (d) training is provided and differentiated for teams, (e) teams have access to templates and models to inform their work, and (f) clear expectations are laid out for teams to use to access the quality of their work.

Educators do not believe that working in isolation is the best strategy for improving schools. Rosenholtz (1999) stated that traditionally, teachers used to work in isolation much like independent contractors within a school. Educators need to collaborate and share their ideas and stop working in isolation. Educators cannot continue to work in a situation where they don't share ideas, teaching strategies, or classroom materials. Also, they must stop making excuses that they cannot find the time, that they need more training, or that they do not have the skills. Schools that created collaborative work environments have succeeded. As Barth (1991) wrote,

Are teachers and administrators willing to accept the fact that they are part of the problem?... God didn't create self-contained classrooms, 50-minute periods, and subjects taught in isolation. We did—because we find working alone safer than and preferable to working together. (pp 126-127)

During this research, Stoll et al. (2007) offered examples of how school context can impact teacher learning. Referencing their research on school size showed that large schools often had more difficulties in developing a strong sense of group identification across the whole building, and noted that improvement is also more challenging in secondary schools. Also, factors such as the location of schools in rural or isolated areas, the climate of the student body, and the history of the school can impact learning

communities. Finally, external influences are cited as factors that can impact the work of professional learning communities. These include the level of support from the community, policy decisions, and the availability of learning infrastructures such as access to university faculty and programs.

Through the results-oriented thinking, the focus of the PLC is on the results of action. PLCs are judged on the effectiveness of the results. Teachers must work together to improve student achievement. The methods that are used for learning new concepts are changing for both students and teachers. If teachers expect to implement 21st-century learning in classrooms to prepare students to succeed in today's globally connected and emergent world, teachers must develop their expertise with new learning technologies (Killion, 2011, p. 3).

DuFour et al. (2004) argued that a school truly committed to the concept of learning for each student will develop consistent, systematic procedures for responding when students do not learn. He also mentioned that schools and classrooms should be driven by results and work to develop a plan around those results. This plan would then be implemented and aligned through assessment and data analysis. The leaders of the school could then use this data to emphasize a collaborative approach to continual improvement and research into best practice, where working together becomes routine. There must be common formative assessments and an ongoing assessment of programs and initiatives within the school. DuFour et al. (2006) reminds us of the need for frequent recognition. One's goal in a PLC is to find people's talents, aspirations, and skills, and showcase them. The goal is to "leave a legacy of leaders," not create a legacy for oneself.

Technology is used as a bridge to connect small schools to opportunity. However, in small schools where budgets are tight, funding is cut for professional development to save money. Technology can be used to facilitate the work of a PLC and is widely discussed in the literature. Liberman (2000) notes how technology has changed the way people communicate, work and learn. She also suggests that educators who participate in overlapping workgroups organized through online educational reform networks can recreate the scholarship of teaching. If districts view PLCs through this perspective, an online environment can be effective for collaborating and networking with others that are experts in particular communities of practice.

According to the United States Congress Office of Technology Assessment (1995), the lack of teacher training is one of the greatest roadblocks to integrating technology into a school's curriculum. That same report revealed that most school districts spend less than 15 percent of their technology budgets on teacher training and development (Brand, 1997). Technology has connected teachers throughout the world and has enabled them to discuss similar concepts. MacIsaac (2000) describes an online resource for physics teachers where the group has multiple email lists for discussing high school physics, professional research into physics learning, and a discussion that focused on the design and construction of the physics laboratory and demonstration apparatus. Here, the online environment provided additional time and space for this community to learn and collaborate.

In small rural schools, only a few teachers exist that contain the same teaching certifications, which makes it extremely difficult to discuss teaching strategies and concepts. As a result, schools are using technology to build online learning

communities. By building an online learning community, Dalgarno and Colgan (2007) reported that priorities and learning needs of teachers during pre-service included: discussions with experts in topics such as mathematics curriculum, technology integration, differentiating instruction, building understanding of mathematical concepts, a bank of challenging problems and lessons selected by an expert appropriate for the classroom, and the ability to share lesson plans and activities. From this study, the results suggest that professional development can include alternate forms from the preliminary list and could expand upon professional development that promotes ongoing interaction with colleagues, as well as provides a sense of community. This study also included that teachers demonstrated a positive experience when a skilled facilitator with a personal connection to the professional learning presented to the online community of practice.

The ability to connect and build on PLCs is not only held to interact on the teaching practice with each other, but also to create a place for professionals to share ideas and work collaboratively to improve the academic performance of students. Henri and Pudelko (2003) provide a framework for educators to analyze and evaluate the activity and learning in virtual communities. Communities of similar practices exist and are seen as developing among people who already share a common working interest. They identified four learning communities: (1) a community of practice; (2) a goal-oriented community of interest; (3) a learner community; and (4) a community of interest. They also noted that mutual concerns and approaches exist within the communities to enhance professional practice.

According to Marzano (2013), when the PLC process is used to its full potential, it can help create a school environment that is safe, orderly, collaborative, and learner-focused. He maintains that "the PLC process can change the basic dynamic of leadership within a school, allowing school leaders to have a more efficient and direct impact upon what occurs in classrooms" (Marzano, 2013, p. 19).

The ability for teachers to connect is difficult due to the scheduling of all mandated requirements, managerial paperwork, and all of the professional tasks that exist for a teacher. The time to sit down and talk is even difficult on professional development days. Teachers that engage in a PLC can have powerful conversations and think about their teaching and learning in meaningful ways. The time that teachers take to work together can be enhanced and incur benefits of collaboration through a PLC.

Many organizations have been created to show their support for PLCs. Support has increased for school reform that endorses the PLC process. For example, Annenberg Institute for School Reform (2004) states,

We support and encourage the use of professional learning communities (PLCs) as a central element for effective professional development and a comprehensive reform initiative. In our experience, PLCs have the potential to enhance the professional culture with a school district.

History of Social Media

The history of social media began with the invention of the World Wide Web in 1991, when Tim Berners-Lee managed to connect hypertext technology to the Internet. This formed the basis of a new type of networked community (Dijck, 2013). Through the end of the 20th century, the internet allowed users to join or actively use groups, but

would not allow users to be interactive. Only after the turn of the century did the internet open up two-way communication between users and allow them to interact with each other. This communication allowed users to talk to friends, share pictures, watch videos, scribble and draw notes, and even talk to people through live connections. With these features came programs such as AOL, Hotmail, webcams, and notepad, which allowed users to connect with each other and share personal stories. These platforms allowed users to share with other users and changed the essence of private communication.

During the turn of the century, more and more inventions of online platforms allowed users to share ideas and stories. According to Dijck (2013), Blogger (1999), Wikipedia (2001), Myspace (2003), Facebook (2004), Flickr (2004), YouTube (2005), Twitter (2006), and a wide array of ensuing platforms began to offer web tools that sparked old and new online communication tactics. The creations of these platforms allowed users to connect with each other and engage in activities where the social activity became a verb. The earliest example of such coding and branding phenomenon in the online world is the evolution of “googling,” now a synonym for online search (Dijck, 2013). Still, only a few platforms have reached a level of popularity where the brand has become synonymous with a verb the way “tweeting” has.

Twitter as a Professional Learning Community

In 2006, Twitter was created by the software company Odeo (Twitter launches, 2019) to help redefine the podcasting industry. Since then, journalists, lawyers, and medical doctors began to use the platform to dialogue their professional experiences. Educators also began to centralize their online networking by taking their conversations to Twitter and using the platform for informal professional development (Boss, 2008).

Twitter is a digital social networking service that allows users to send out short messages called "tweets." In this way, Twitter has allowed educators to communicate with each other and share ideas across the globe. This form of communication has allowed teachers to remove barriers from collaboration and gives them access to direct communication with individuals, which used to be limited or nonexistent. In the past, administration and professional development leaders would have to filter their ideas and knowledge for the audience. Sharing ideas would be limited to small groups within the building or area of professional development. Teachers would be limited to participation and only the "brave" teachers would actively participate in the conversation.

As teachers seek out a conversation, teachers can send "tweets" that identify with their topic of interest. The "tweet" can be 280 characters—140 characters was the limit until November 2017—and can be seen by anyone that follows or views the user. The author of the "tweet" can post links, videos, live streams, and even poll users. Users also have the opportunity to direct-message individuals and groups and receive responses from their direct-message, offering advice or suggestions on the question of concern that may not be seen by others.

Through the power of "tweets", users can start a conversation with other educators that all have the opportunity to contribute in a discussion at their own pace. It can be difficult for teachers to share their honest opinions and ideas, particularly when their views are different from their district's vision. It is natural for teachers to want to discuss and interact organically and share ideas face-to-face. With Twitter, educators can share ideas and classroom experiences, connect with other professionals, discuss strategies, and learn from others.

Educators believe that Twitter connects teachers looking for professional development that promotes higher-level thinking and engages the students. With the use of Twitter, teachers can connect with other educators and professionals in specific content areas, professional interest groups, and specific professional development interests. Twitter allows for quick responses to teachers' questions and concerns. Twitter users have the ability to "follow" other users, and the opportunity to receive updates automatically when the users they follow "tweet." By using the at-sign and a user's Twitter username, known as a reply or mention, one user may specifically call the attention of another user to the "tweet" containing the mention ("About replies and mentions?", 2014). Through this ability to "follow" and attract "followers," educators can build their own PLC of colleagues and friends who can assist a teacher with advice, resources, and almost instant response on almost any topic of interest.

Hashtags are another useful method of specifying subject matter on Twitter, created by the use of the octothorpe and a short, subject-specific phrase (Doctor, 2013). Teachers can connect at any time of their day to share ideas and activities, to discuss strategies or evaluate procedures, or discover new ideas that will enhance their students' knowledge with professionals alike. Hashtags are utilized by educators on an incredible breadth of education topics (Blumengarten, 2014).

The most popular hashtag among the educator community on Twitter is #edchat (Bearden, 2013). Active educators on the Twitter platform organized a community of teachers around the hashtag in 2009 (Frontpage, n.d.). Teachers can post and search for topics using the #edchat search feature. The active community of educators post often to this hashtag and have scheduled chat sessions frequently through Twitter. Through the

use of this hashtag, users could seek out information, post questions, or share their success with other like-minded educators. By 2012, the weekly #edchat sessions had several hundred active participants and thousands of posts each week (Anderson, 2012).

There is much less Twitter noise through specific sessions such as #edchat, making it easier for teachers to focus on specific content areas. The "tweets" of focused groups can support content area-specific teachers and provide a clear resource for a topic. As with #edchat, subject-specific chats such as #sschat (for discussion of Social Studies) and #engchat (for the discussion of English) will often revolve around specific topics for their weekly chats, addressing pertinent or requested topics (Schulten, 2011).

Social networking sites have been rapidly adopted by children and, especially, teenagers and young people worldwide, enabling new opportunities for the presentation of the self, learning, construction of a wide circle of relationships, and the management of privacy and intimacy. On the other hand, there are also concerns that social networking increases the likelihood of new risks to the self, these centering on the loss of privacy, bullying, harmful contacts and more (Livingston and Brake, 2010, p.75).

Since educators can create, share, and retrieve information through social media platforms such as Twitter, pedagogy can be discussed anywhere. Using Twitter, teachers can "tweet" and research the method and practice of their teaching, focusing on a specific subject or content area. Twitter, and other forms of social media, have become a significant resource for teachers, both for their own benefit and for student learning. Teachers must engage with social media in order to best prepare students for today's society.

If schools fail to see the importance of social media as an effective use of professional development, then the schools will fail the students. "Without addressing or acknowledging that our students are using social networking tools, we place them at risk" (Huffman, 2012). With the use of social media, teachers will become connected with other teachers and be able to share ideas that meet the needs of their students.

When teachers utilize Twitter, they are engaging with the community and removing themselves from isolation practices that can be harmful to their mental health. Twitter allows for teachers to connect with other teachers of the same content, grade level, and even demographic—something that in-house professional development does not allow. Twitter can also benefit teachers by providing information about the latest and best practices, resources, and innovative ideas (Huffman, 2012).

CHAPTER III

Methodology

Introduction

The purpose of this qualitative study was to research the effectiveness of social media as a professional learning development tool for educators, and whether or not it provides the ability to build professional learning communities for teachers in a small district with limited funds for professional development. Traditionally, professional development is offered to educators with little or no professional connection to their teaching content area. Effective and meaningful professional development that has a connection to teachers' content area is a problem for small, rural school districts. Districts are limited with their professional development budgets and have a difficult time finding ways to provide meaningful professional development to staff. There is also a problem with teachers connecting professionally with other teachers in small districts to discuss content and teaching strategies. The lack of funding and professional development opportunities restricts teachers from sharing ideas and gaining new strategies for their classroom and trying to connect their teaching to students that may require a different method of learning.

With the availability of online professional learning communities, teachers are able to share ideas with colleagues across the globe, learn new ideas for the classroom, and gain strategies to connect with all students. This study focused on a high school staff that was introduced to social media, specifically Twitter, and analyze the ability of the app to connect teachers to other teachers, educational groups, and teaching professionals. This study used qualitative methods, including Google surveys, to gather

data on the impact of social media as a professional development tool and the establishment of professional learning communities in a small rural school.

Purpose

The purpose of this study was to investigate the impact of social media as a professional development tool, including the connection of professional learning communities. This study considers the use of Twitter and the app's ability to assist teachers in a manner of professional growth. Through the use of surveys, teachers were asked how Twitter has impacted them professionally and if Twitter has helped them connect with other professionals in professional learning communities. The surveys were distributed through Google Forms and the teachers were asked to complete closed and open-ended questions. The data collected would examine their use of Twitter, the ability of Twitter to allow them to grow professionally, and the willingness of teachers to join professional learning communities on the app.

The research for this study was gathered by teachers responding to the initial following topic areas:

1. How has social media, such as Twitter, impacted professional development for you professionally?
2. What are the professional impacts (if any) of using social media on teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions?
3. What professional growth changes have you made as a result of using social media as a teacher?

Setting and Participants

This study looked at the use of social media, specifically Twitter, as a tool for professional development and professional learning communities. This study was conducted in the Frazier School District, a small rural school district located in the Southwestern corner of Pennsylvania, approximately 35 miles south of Pittsburgh, Pennsylvania. The district comprises five separate municipalities and encompasses approximately 58.3 square miles with a population base of 8,631 residents. At the time of the study, the district operates three separate schools: one elementary school, a middle school, and a high school. Enrollment in the district at the time the survey was conducted was approximately 1,150 students and has remained fairly steady to slightly declining over the past decade. The staff consisted of 80 teachers, 43 support personnel, and seven administrators.

The district employs 25 full-time teachers at the high school, and three teachers that are shared between the high school and middle school. There are 350 students at the high school in grades 9-12. There are eight Advanced Placement courses, five classes that are dual enrollment opportunities through two local colleges, and a local career and technical center that students in grades 10-12 can attend. The district operates on a 17-million-dollar budget and has consistently raised taxes each year since 2014.

The high school, where the research was conducted, has 42.3% of the teachers with over 20 years of teaching experience. The second highest number of years of teaching experience comes from 21.3% of teachers with 8 - 12 years of teaching experience. Third in years of experience comes from 19.2% of teachers with 12 - 20 years of teaching experience. There were 7.7% of teachers with 2 - 5 years of teaching

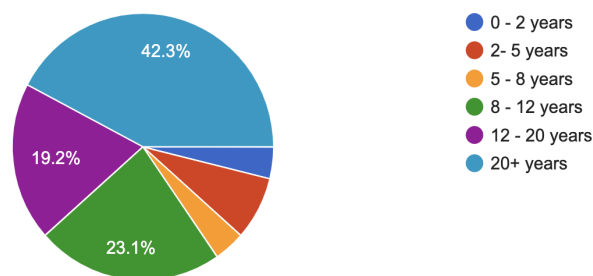
experience, and 3.8% of teachers with 0 - 2 years of experience and 5 - 8 years of experience at the high school, as shown in Figure 1.

Figure 1

Teaching Experience

How many years teaching experience do you have teaching?

26 responses

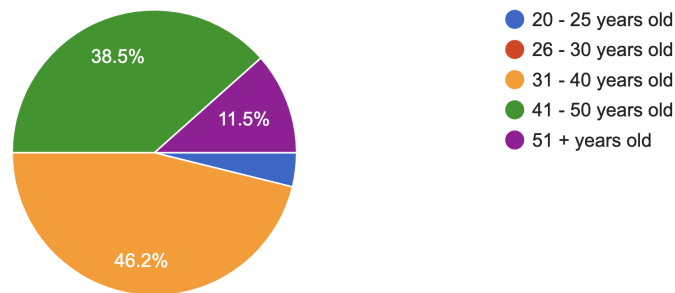


The teachers also varied in ages in which the data was collected as shown in Figure 2. The teachers that responded reported an age range of 31 - 40 years of age, which equated to 46.2% of the high school staff. The second largest demographic of teachers ages 41 - 50 years old was 38.5% of the staff. The third largest demographic of teachers was 11.5% of teachers that were 51 years of age and older.

Figure 2***Teacher Age Range***

What is your age range?

26 responses



The researcher sent a consent form through email to the teachers informing them of the research. This letter invited the teacher to participate in a research study about the use of social media as a professional learning development tool titled, “Is Social Media, as a Professional Learning Development Tool, Beneficial for Teachers?”. The teachers were asked to participate as a high school teacher that may have used social media as a professional development tool. The procedure involved completing a survey that would take approximately 10 minutes in total length. The survey questions were about the use of social media as a tool for professional development and the use of social media to connect with other teachers and professionals to join a professional learning community. Through the teachers’ participation, the researcher would gain an understanding of the use of social media and needs for content-specific professional development (See **Appendix A** for Consent Form).

The researcher, through the Institutional Review Board, submitted for approval via email and received an email as official notification for the proposal titled, “Is Social

Media, as a Professional Learning Development Tool, Beneficial for Teachers?"

(Proposal #19-002) was approved by the California University of Pennsylvania Institutional Review Board as submitted (See **Appendix B** for Institutional Review Board Approval 19_19-002).

A survey was created in Google Forms and transmitted through Gmail to the teachers. The survey that was used with the sample teachers were current educators at the high school. 28 teachers were invited to participate in the survey. The staff demographics consisted of 13 male teachers and 15 female teachers, along with their years of service, as shown in Table 1. The years of experience were also analyzed as eight males had between zero and nine years of service, three males had between 10 and 19 years of service, and two males had 20 plus years of service. Of the females at the high school that responded to the survey, four had between zero and nine years of service, four had between 10 and 19 years of service, and seven had 20 plus years of service.

Table 1

Gender and Years of Service of Staff teachers

| Gender | 0-9 years of service | 10-19 years of service | 20+ years of service |
|---------------|-----------------------------|-------------------------------|-----------------------------|
| Male | 8 | 3 | 2 |
| Female | 4 | 4 | 7 |

Teachers had the option to participate further into the survey but first had to answer the question of whether or not they had a Twitter account. Some educators could

not respond to the complete survey, as four teachers reported that they did not have a Twitter account. The survey then ended for those teachers, as shown in Figure 3.

Figure 3

Years with Twitter Account

How long have you had a Twitter account for networking with other educators?

26 responses



The survey also included open-ended questions to provide personal responses to their use of Twitter. This qualitative survey asked introduction questions using closed-response questions collecting information on basic demographic data, gender, years of service, and questions relating to their professional use of Twitter. These teachers provided the demographic data as shown in Table 2. This data identifies their role in education, as well as their years of experience using Twitter in the education community. The survey instrument can be found in Appendix C and full responses are provided in Appendix D.

Table 2

Demographic Data of Survey teachers

| | | | |
|------------------------------------|--|--|-------------------------|
| What is your focused content area? | How long have you had a Twitter account for networking with other educators? | How many years of teaching experience do you have? | What is your age range? |
|------------------------------------|--|--|-------------------------|

| | | | |
|-----------------------------|-------------------------|---------------|-------------------|
| English Language Arts | 1 - 2 years | 20 + years | 51 + years old |
| Science | 2 - 3 years | 8 - 12 years | 31 - 40 years old |
| English Language Arts | I don't have an account | 0 - 2 years | 31 - 40 years old |
| English Language Arts | 1 - 2 years | 8 - 12 years | 31 - 40 years old |
| Science | 1 - 2 years | 12 - 20 years | 41 - 50 years old |
| History | 4 - 5 years | 8 - 12 years | 31 - 40 years old |
| Math | I don't have an account | 12 - 20 years | 31 - 40 years old |
| Math | 0 - 1 years | 20 + years | 51 + years old |
| Science | I don't have an account | 20 + years | 51 + years old |
| English Language Arts | 0 - 1 years | 8 - 12 years | 31 - 40 years old |
| Arts and Humanities | 1 - 2 years | 20 + years | 41 - 50 years old |
| Arts and Humanities | I don't have an account | 2 - 5 years | 20 - 25 years old |
| Arts and Humanities | 4 - 5 years | 12 - 20 years | 31 - 40 years old |
| Math | 1 - 2 years | 20 + years | 41 - 50 years old |
| Physical Education / Health | 1 - 2 years | 8 - 12 years | 31 - 40 years old |
| Physical Education / Health | 5 + years | 12 - 20 years | 31 - 40 years old |

| | | | |
|-----------------------|-------------|---------------|-------------------|
| History | 1 - 2 years | 5 - 8 years | 31 - 40 years old |
| English Language Arts | 0 - 1 years | 20 + years | 41 - 50 years old |
| Arts and Humanities | 0 - 1 years | 20 + years | 41 - 50 years old |
| Math | 0 - 1 years | 20 + years | 41 - 50 years old |
| Math | 0 - 1 years | 12 - 20 years | 41 - 50 years old |
| History | 0 - 1 years | 20 + years | 41 - 50 years old |
| Science | 1 - 2 years | 20 + years | 41 - 50 years old |
| Technology | 1 - 2 years | 20 + years | 41 - 50 years old |
| History | 1 - 2 years | 8 - 12 years | 31 - 40 years old |
| Arts and Humanities | 0 - 1 years | 2 - 5 years | 31 - 40 years old |

Intervention and Research Plan

The researcher surveyed the 28 high school teachers to determine the use of Twitter in their personal professional development plan. The goal was to see the ways in which social media, specifically Twitter, impacted professional development for them as educators, as well as the professional impacts (if any) of using social media on their teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions. Additionally, the researcher sought to discover what professional growth changes occurred as a result of using social media as a teacher.

Teachers were selected at the high school so the researcher could develop a list of teachers using Twitter for professional development, plus how many years the teacher had been using Twitter, and if they used Twitter for professional learning communities. The researcher developed the survey questions and created a Google Form for distribution through the district's Gmail email accounts. The researcher utilized Google Forms because it is a web-based service that allows the user to create and distribute surveys to specific individuals. Google Forms allowed immediate feedback and reports on the responses and data that was collected. Teachers remained anonymous and could opt-out of the survey by choosing that they did not have a Twitter account during the introduction part of the survey.

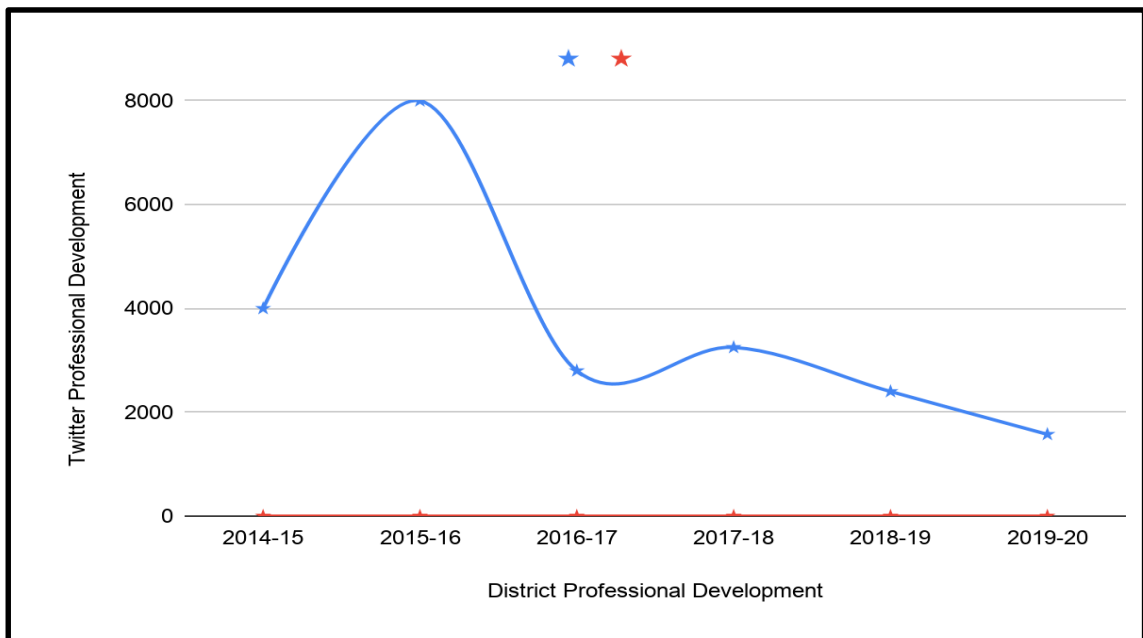
Data that was collected from the survey was analyzed to determine if teachers in the small rural high school were using Twitter for professional development and professional learning communities. The data also provided the extent to which it was being utilized, and if Twitter had changed the teacher professionally. Teachers also described how Twitter personalized their professional learning opportunities and if Twitter made a positive impact on their professional development.

Data was also collected on the financial implication of professional development, and whether or not teachers believed that Twitter could provide relevant professional development at no cost to the school district. Data regarding financial costs of professional development that they spent out of their own pockets for the training of Twitter was collected, and then compared to the costs of professional development that the district had spent from 2014 through 2020 on group professional development. See

Figure 4 for the cost comparison of district-wide professional development versus the cost for Twitter professional development.

Figure 4

District Costs for Professional Development



Research Design, Methods and Data Collection

This inquiry-based research study explored how teachers in a small, rural school district used Twitter as a professional learning tool. The research also includes the impact that Twitter had on professional development and how social media has allowed teachers to connect with other professionals outside of their own building. The main goal of professional development is to assist and prepare teachers by giving them the knowledge and skills they need to prepare all learners while ensuring they achieve high standards of learning and growth (U.S. Department of Education, 1996). Teachers were to report their usage and engagement with Twitter by checking the appropriate box as shown in Figure 5.

Figure 5***Engagement Usage of Twitter***

How frequently do you use Twitter to engage in the following activities? *

| | Never | Sometimes | Regularly | Daily |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| Share a link to an online resource | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Research a new strategy that you implement in class | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Reshare a resource shared by others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Follow a link to a resource shared by others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Read posts marked with an educational hashtag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Post with an educational hashtag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Engage in a professional dialogue using an @reply | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Ask for help or advice from other teachers / professionals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provide help or advice to other teachers / professionals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Data from the use of Twitter came from teachers that were questioned through the qualitative model, allowing teachers the ability to explain their answers by responding to open-ended questions. Teachers were given access to the following questions:

- Describe how Twitter has impacted your professional development.
- What specific professional development from Twitter have you implemented in your classroom?
- Describe how Twitter has allowed you to access professional development outside of classroom time.
- How has Twitter impacted you professionally by teacher-teacher interactions?
- Explain how Twitter has impacted you professionally by teacher-content interactions?
- Describe how Twitter has impacted your professional learning community through teacher-interface, teacher-content, teacher-instructor, and/or teacher-teacher interactions?
- Describe how Twitter has changed you professionally.
- Explain how your content knowledge has changed as a result of using Twitter.
- How has Twitter provided you opportunities to grow professionally by connecting with professionals outside of the education field?
- Explain how Twitter has fiscally impacted your professional development.

Research was also collected through teachers that were evaluated through the differentiated supervision model, which allowed teachers to focus on a professional development project and implement the research into their classrooms while being evaluated for their effort into trying new teaching methods. After providing them with the necessary information, five teachers were observed integrating a strategy into their classrooms that they discovered using Twitter. The survey provided the necessary data to evaluate the effectiveness of the professional development that was created through the connection of social media.

Research was also conducted through the use of field notes in which the researcher collected data while observing teachers implement a new teaching method into their classrooms, one that was entirely developed through the use of social media. This observational data was an important piece as the discovery of the new teaching strategy was observed when implemented within the classroom lesson. Observations were conducted through the agreement of the teacher and the researcher with an understanding of the use of the new professional development strategy.

Validity

During the time of this study, the researcher carefully thought about what questions to ask to increase the accuracy and the truthfulness of the teachers' responses. The questions were carefully planned and piloted with the internal committee member to assure the validity of the question. The researcher chose credibility as the main type of validity to focus on during the research collection at the current time that the survey was conducted. Although the survey method was conducted to gather data, this was only a

survey strategy. Data collection also occurred through face-to-face interviews, classroom observations, and by following users on social media.

Through the interpretations of the collected data, the researcher used the superintendent of the school district to analyze and discuss the collected data. This discussion allowed the researcher to view the collected data on the use of Twitter from another person's perspective. This review presented a view of the data from a source knowledgeable of professional development and the capability of social media. From the peer debriefing, the researcher determined some of the data collection demonstrated some educators lacked a core understanding of the social media platform, and therefore were not comfortable using it in their classrooms.

During the collection of data, the researcher also engaged in observation of classroom lessons where the teacher implemented a new strategy that was discovered through Twitter. The gathering of data through observations allowed the researcher to see the impact that Twitter may have had on the teachers' methodologies, and why some teachers used Twitter as a consistent teaching and communication tool within their classes. The observations that occurred from the information collected through the data survey allowed the researcher to understand how and why teachers referred to Twitter to gain new teaching strategies and project ideas.

The researcher recorded data from the survey through the use of Google Sheets. The use of Google Sheets allowed for teacher data to be recorded as stated and the incorporation of accurate charts and graphs. The data collected was maintained in a cloud-base data management system and was updated in real-time as data was inputted. The data collected included teacher demographics, content area, age range, length of

usage of social media, impact of social media, and teacher effectiveness from professional development opportunities. Discussions with three teachers that demonstrated knowledge of the use of Twitter as a professional development tool were scripted from a recording, with permission, through the use of an application on a smartphone. This allowed for accuracy while collecting data from the conversation and provided an accurate representation of the impact of social media on the teachers' professional development.

The process of discussing the researcher's interpretation of the data with the teacher allowed for accurate data representation in the final collection period. The researcher then checked the accuracy of the collected data. This included whether or not the data was truthful, and if it was captured in a manner that described the teachers' professional development and experiences with social media.

Data was collected in a variety of ways, including a survey through Google Forms, open-ended questions, classroom observations, and conversations. Data from the use of Twitter came from teachers that were questioned through the qualitative model, allowing them to expand upon their answers by responding to open-ended questions. Through the use of field notes, which allowed the researcher to collect data from observations in the classroom while the new teaching method was being implemented, allowed the researcher to step into the field to gather information on the use and effectiveness of social media as a professional learning tool.

Summary / Transition

In summary, this study researched how teachers in a small, rural school district in southwestern Pennsylvania, with limited funds for professional development, could

utilize social media for online professional development opportunities. The researcher surveyed 28 teachers within the high school building to determine how the use of Twitter has impacted their professional development and if they were involved with professional learning communities. The survey also asked the respondent to what extent they have utilized Twitter, how long they have had an account, and whether or not they use Twitter to connect with other educators. Responses from the first part of the survey were used to collect demographic information on the respondent but did not identify the person. This data was used to group the teachers by age ranges, years of experience teaching, and their focused content area. One question at the beginning of the survey asked if the participant currently had a Twitter account, followed by a statement that the survey would end if they selected they did not have an account. Data from the second half of the survey was utilized to further understand how teachers were engaging with the social media platform to connect with other educators, and how Twitter has changed them professionally. The research questioned the teachers on the frequency at which they shared links and connected with other educators to exchange ideas and seek out solutions. The survey also gained input from the teachers by having them describe how Twitter has impacted their teaching and how, or if, Twitter has impacted their professional development. The survey also addressed the cost of professional development and whether or not using Twitter allowed them to grow as an educator without financial implications to the district. Face-to-face interviews were recorded and reviewed by the respondent and recorder after the interview. And finally, classroom observations were recorded by the researcher and reviewed with the respondent, discussing how the implementation of the teaching strategy from Twitter had impacted

students' learning, and if using Twitter improved upon the teaching of the lesson. The use of this data will summarize each respondent's information in the study and how the use of online professional learning for teacher growth has impacted the way they engage with their classrooms.

CHAPTER IV

Data Analysis and Results

Introduction

The purpose of this study was to focus on how school districts provided professional development to all staff members and whether social media was beneficial for teachers in terms of professional learning communities. The goal of this study was twofold: to research the effectiveness of social media as a professional learning development tool for educators, and to analyze the site's ability to host professional learning communities for teachers in a small district with limited funds for professional development.

Traditionally, professional development was offered to educators with little or no professional connection to their teaching content area. Small, rural school districts have been limited in their professional development budgets and as a result, often have a difficult time finding ways to provide effective and meaningful professional development to all staff. Additionally, teachers had a difficult time connecting professionally with other teachers in small districts. Lack of funding and professional development opportunities restricted teachers from sharing ideas and gaining new strategies for their classroom, strategies they might have needed to connect with students requiring a different method of learning than what they were used to. The researcher surveyed the staff of a small, rural high school in southwestern Pennsylvania to determine the effectiveness of social media as a professional learning development tool and the ability for teachers to use social media to establish professional learning communities.

This chapter will present the data analysis process and address the process the researcher used to analyze the data. Data from the research was used to develop a sample of teachers within the high school that used social media as a professional development tool. Using the sample, the researcher conducted interviews with the teachers over a period of one semester. The interviews occurred either in the researcher's office or in the teacher's classroom. Each interview was transcribed and reviewed with the teacher as a final discussion. The following sections of this chapter include data results from the initial survey, a profile of the teachers surveyed, a discussion of the interview questions, and results from the data analysis. Finally, this chapter concludes with a clear and comprehensive summary that illustrates the use of social media as a professional learning development tool in a small, rural school.

Data Analysis

Using a Google account, a survey was created using Google Forms and shared with 28 high school teachers. The purpose of the survey was to investigate the impact of social media, specifically Twitter, as a professional development tool, including the connection of professional learning communities. The survey considered the use of Twitter and the ability to assist teachers in the manner of growing professionally. Through the use of the survey, teachers were asked how Twitter has impacted them professionally and if Twitter has helped them connect with other professionals in professional learning communities. The survey was created in Google Forms and shared with the teachers through their official school Gmail account. The teachers were asked to complete closed and open-ended questions. The data collected would determine their use of Twitter, the ability of Twitter to allow them to grow professionally, and the

willingness of teachers to join professional learning communities on Twitter. The initial survey collected 26 teachers or 92.8% of the 28 teachers in the high school.

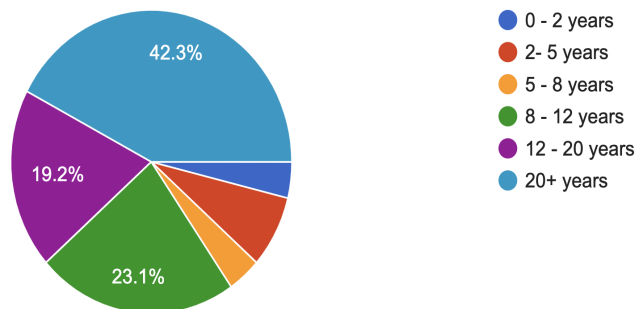
During the research for teachers that utilize Twitter for professional development opportunities, the survey revealed 42.3% of the teachers had over 20 years of teaching experience. The second most years of teaching experience came from 21.3% of teachers with 8 - 12 years of teaching experience. Third in years of experience was 19.2% of teachers with 12 - 20 years of teaching experience. Finally, there were 7.7% of teachers with 2 – 5 years of teaching experience, and 3.8% of teachers with 0 - 2 years of experience and 5 - 8 years of experience at the high school, as shown in Figure 6.

Figure 6

Teaching Experience at the High School

How many years' teaching experience do you have teaching?

26 responses



The teachers also varied in age range, as shown in Figure 7. The teachers that responded reported an age range of 31 - 40 years of age, which equated to 46.2% of the high school staff. The second largest demographic of teachers ages 41 - 50 years old was

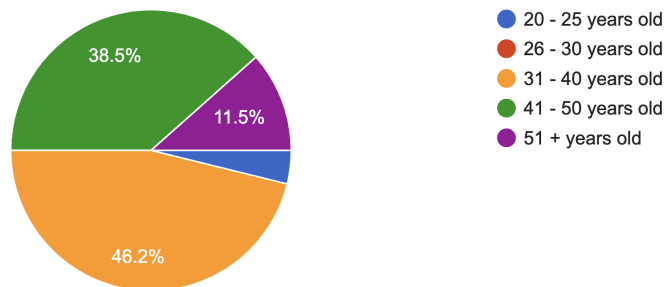
38.5% of the staff. The third largest demographic of teachers was 11.5% of teachers that were 51 years of age and older.

Figure 7

High School Teacher Age Range

What is your age range?

26 responses



All 22 teachers who reported that they had a Twitter account stated they had Twitter for at least one year. Six of the teachers recorded that they “Never” use Twitter to engage in educational related activities. Two of the teachers that recorded they do not use Twitter for educational purposes are history teachers, two were math teachers, one was an English teacher, and one was an arts and humanities teacher. The remaining 16 teachers recorded they have utilized Twitter in some manner for educational purposes. Of the 16 teachers, three were English teachers, three were science teachers, three were arts and humanities teachers, two were math teachers, two were history teachers, two were physical education teachers, and one was a technology teacher. See Figure 8 for teachers that do not have Twitter, or that have Twitter but do not use it for educational purposes.

Figure 8*Teachers with No Use*

| Content Area | Years Teaching | Age Range | Years on Twitter | Use for Educational Purposes |
|-----------------------|-----------------------|------------------|-------------------------|-------------------------------------|
| Arts and Humanities | 2-5 | 20-25 | I don't have an account | - |
| English Language Arts | 0-2 | 31-40 | I don't have an account | - |
| Math | 12-20 | 31-40 | I don't have an account | - |
| Science | 20+ | 51+ | I don't have an account | - |
| History | 8-12 | 31-40 | 4-5 | No |
| History | 20+ | 41-50 | 0-1 | No |
| Math | 20+ | 41-50 | 0-1 | No |
| Math | 20+ | 41-50 | 1-2 | No |
| English Language Arts | 8-12 | 31-40 | 0-1 | No |
| Arts and Humanities | 2-5 | 31-40 | 0-1 | No |

The organization and analysis of the data from the initial survey allowed the researcher to progress to the final data collection phase by identifying teachers within the small rural high school who utilized social media as a professional learning development tool. Final data was collected through the use of a survey through Google Forms, classroom observations, and through semi-structured interviews that took place in the teacher's classroom and/or the researcher's office.

Results

The following section addresses each research question identified in the researcher's study for the teachers that utilized Twitter for educational purposes. This

section is organized based on the manner in which the questions were asked in the Google survey, classroom observations, and researcher-teacher discussion. Direct quotations may be used throughout this section to capture the actual responses of the use of Twitter. Sixteen teachers responded to the survey that they utilized Twitter for educational purposes. See Figure 9 for teacher demographics regarding teachers that utilize Twitter.

Figure 9

Teaching with Twitter

| Content Area | Years Teaching | Age | Years on Twitter | Use for Educational Purposes |
|-----------------------------|-----------------------|------------|-------------------------|-------------------------------------|
| History | 5-8 | 31-40 | 1-2 | Yes |
| English Language Arts | 8-12 | 31-40 | 1-2 | Yes |
| Science | 8-12 | 31-40 | 2-3 | Yes |
| History | 8-12 | 31-40 | 1-2 | Yes |
| Physical Education / Health | 8-12 | 31-40 | 1-2 | Yes |
| Math | 12-20 | 41-50 | 0-1 | Yes |
| Physical Education / Health | 12-20 | 31-40 | 5+ | Yes |
| Science | 12-20 | 41-50 | 1-2 | Yes |
| Arts and Humanities | 12-20 | 31-40 | 4-5 | Yes |
| English Language Arts | 20+ | 41-50 | 0-1 | Yes |
| Arts and Humanities | 20+ | 41-50 | 0-1 | Yes |
| Math | 20+ | 51+ | 0-1 | Yes |
| Arts and Humanities | 20+ | 41-50 | 1-2 | Yes |
| Science | 20+ | 41-50 | 1-2 | Yes |
| Technology | 20+ | 41-50 | 1-2 | Yes |
| English Language Arts | 20+ | 51+ | 1-2 | Yes |

The researcher used the survey through Google Forms to collect data from the teachers and their use of the social media platform for educational purposes. The Google Form survey asked the teachers how often they used Twitter for educational purposes. The survey was emailed to the teachers through their school Gmail accounts to be completed on their own. Data from the initial survey was used to separate the teachers that utilized Twitter for educational purposes from the teachers that did not use Twitter for educational purposes or did not have a Twitter account. 16 teachers completed the survey based on the frequent use of Twitter. As shown below, Table 5 represents how frequently teachers engaged with Twitter for the following activities.

Table 5*Twitter Frequency*

| | Never | Sometimes | Regularly | Daily |
|--|-------|-----------|-----------|-------|
| Share a link to an online resource | 7 | 8 | 0 | 1 |
| Research a new strategy that you implement in class | 8 | 7 | 1 | 0 |
| Reshare a resource shared by others | 5 | 10 | 0 | 1 |
| Follow a link to a resource shared by others | 0 | 12 | 3 | 1 |
| Read posts marked with an educational hashtag | 2 | 11 | 2 | 1 |
| Post with an educational hashtag | 6 | 10 | 0 | 0 |
| Engage in a professional dialogue using an @reply | 10 | 6 | 0 | 0 |
| Ask for help or advice from other teachers / professionals | 12 | 4 | 0 | 0 |
| Provide help or advice to other teachers / professionals | 11 | 5 | 0 | 0 |

Data analysis revealed that teachers who used Twitter for educational purposes only used the social media platform sometimes to never. The majority of the teachers used Twitter for resharing a resource shared by others and sharing a link to an online resource. 12 of the 16 teachers followed a link to a resource that was shared by others. 11 teachers read posts that were marked with an educational hashtag and 10 teachers posted a "tweet" with an educational hashtag. 10 teachers never engaged in a professional dialogue using an "@" reply symbol, and only 12 teachers asked for help or advice from other teachers or other professionals. This data was shared with the teachers during interviews and discussions that took place in the researcher's office to further gain information on the use of Twitter for educational purposes and professional development.

The following section addresses each research question identified in this study and specifies the interview questions that were asked of each participant. The information is organized in the manner that the research questions were presented, and in the order of the responses from the teachers. The researcher developed and asked the following questions to acquire the data to answer research question one (1):

Research Question 1: How has social media, such as Twitter, impacted professional development for you professionally?

- Describe how Twitter has impacted your professional development.
- What specific professional development from Twitter have you implemented in your classroom?
- Describe how Twitter has allowed you to access professional development outside of classroom time.

Research Question 2: What are the professional impacts (if any) of using social media on teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions

- How has Twitter impacted you professionally by teacher-teacher interactions?
- Explain how Twitter has impacted you professionally by teacher-content interactions?
- Describe how Twitter has impacted your professional learning community through teacher-interface, teacher-content, teacher-instructor, and/or teacher-teacher interactions?

Research Question 3: What professional growth changes have you made as a result of using social media as a teacher?

- Describe how Twitter has changed you professionally.
- Explain how your content knowledge has changed as a result of using Twitter.
- How has Twitter provided you opportunities to grow professionally by connecting with professionals outside of the education field?

After reviewing the data that was collected from the responses in terms of how teachers were using Twitter for professional development, several consensus themes emerged. There was a consensus that teachers who utilized Twitter were not using the social media platform effectively for professional development opportunities. Based on the responses from the teachers that were interviewed, they believed that the professional development should be presented to the teachers and not something that the

teachers should have to research and do on their own. They also stated that the quality of professional development needs to improve and that most professional development did not need to be a full day of training.

The teachers that were interviewed also believed that through the use of Twitter, those that were engaged in online professional development have developed a means of seeking their own remedy for strengthening their weaknesses. The teachers also stated that the greatest benefit of professional development was the ability to create an opportunity to personally seek out the strategies they needed for all of their students to be successful. The choice for online professional development allowed the teacher to grow professionally on their own terms.

Data analysis from the survey results found that most teachers did not find an educational value to the use of technology as means for professional development. Many of the teachers stated that they found Twitter a burden and that they were bombarded with "tweets" and information that they did not find useful. However, seven teachers did find value in the use of Twitter. They discovered that the ability to connect with other teachers and share content made it very useful to find strategies and activities to share in their classrooms. Several teachers also stated that they were able to find new best practices that they have implemented in their classrooms. Using Twitter allowed them to stay up-to-date with new educational apps, giving them the ability to connect with their students and share these new applications with their colleagues. Social media has allowed the teachers to share student achievement and showcase student projects with the school community. Through the use of social media, the teachers found that their

professional network had grown outside of the district, giving them the ability to connect with other educators and professionals all over the world.

Through the analysis of this data, it was found that some teachers only use one form of social media, such as Facebook, for personal use, and then use another form, like Instagram, to post student work. These teachers did not find Twitter useful and only used social media specifically for a few reasons. The teachers did not see any professional advantage to Twitter and were not interested in seeking ways to grow professionally through the use of social media. One of the teachers believed that it was the district's responsibility to provide professional development opportunities, and to provide them at the time indicated through the collective bargaining agreement.

The next section will describe in detail the effective use of social media as a professional learning tool in terms of how the teacher utilizes professional development opportunities available through Twitter. The data provided will also include direct quotes from the interview with the respondent to reiterate their response from the initial survey.

Teacher #1

Teacher #1 was a history teacher with five to eight years of teaching and was 31 to 40 years of age. They found that Twitter allowed them to discover and incorporate new resources into their lesson plans. The teacher utilized Twitter to display student work as well as communicate changes to the class schedule and lesson planning to all students and parents with the action of a "tweet." Twitter has allowed Teacher #1 to stay up to date with new educational apps and technology, "such as updates to Kahoot which I discovered on Twitter."

For the past six years, Teacher #1 has utilized Twitter to see what other teachers were doing in their classrooms. They stated, “I find it fascinating that I can connect with educators across the country, and world, to see what they are doing.” Twitter has also impacted Teacher #1 by giving them interesting information about historical events, people, and other details that might be useful for their classroom lessons. Teacher #1 responded that Twitter has changed them professionally by allowing them to connect with new educational tools, develop new ideas, and implement strategies with no costs to the district. Additionally, it gave them the opportunity to meet new people, discover valuable resources, and expand the breadth of their historical knowledge, all of which has resulted in their professional growth. Teacher #1 stated, “Twitter allows for the ability to follow different people, corporations, businesses outside of the educational field.”

Teacher #2

Teacher #2 was an English Language Arts teacher that had 8 to 12 years of teaching experience and was 31 to 40 years of age. They believed Twitter impacted their professional development by being able to reach others and expanding their professional learning community. Teacher #2 also found that "tweets" could assist in teaching preparations and had given them access to specific content they might not find otherwise. Twitter allowed Teacher #2 to network with other educators and virtually look into other classrooms. Additionally, Teacher #2 was able to gather articles and resources that were relevant to current lessons and supplement learning material for their students.

Through the use of Twitter, Teacher #2 found that social media had positively impacted their professional learning community, as they had been able to gain further insight on best practices from within the educational community all over the world. Twitter also heightened the teacher's level of professional awareness by keeping them updated on current events and cultural issues that may be of discussion amongst the students in the classroom, along with current educational practices and professional networking opportunities.

Teacher #3

Teacher #3 was a physical education/health teacher with 8 to 12 years of teaching experience, aged 31 to 40 years old. Teacher #3 utilized a variety of social media platforms for professional development, particularly Facebook. Through the use of this social media platform, Teacher #3 was able to share their students' achievements. Using Facebook has allowed them to connect with other professionals within their content area, as well as colleagues involved in extracurricular activities that might be of interest. Facebook and Twitter have allowed Teacher #3 to gain access to other resources that they use in class, as well as recognize student achievements and share teaching resources.

When asked how social media has changed them professionally, Teacher #3 identified that Twitter gave them access to additional resources to improve their classroom instruction, and it allowed them to have a better understanding of what neighboring districts were doing in terms of special events. Social media also allowed Teacher #3 to grow professionally by connecting them with educators outside of the

classroom and showing them what those educators were doing in their own classrooms and districts.

Teacher #4

Teacher #4 was a history teacher of 8 to 12 years and was between 31 to 40 years of age. They explained that Twitter impacted their professional development by allowing them to see the opinions and issues that other educators are facing. This has allowed Teacher #4 to develop any strategies that may help alleviate issues before they become problems in the classroom. In addition to classroom strategies, Twitter gave Teacher #4 the ability to find classroom activities and ideas that could be implemented in accordance with the way teachers on the app have implemented the new activity. Twitter also allowed Teacher #4 to connect with other educators outside of their area.

Teacher #4 valued the ability to connect with other educators through Twitter by collaborating with others and seeing a snapshot of the educators' daily activities. Twitter allowed them to share resources and ideas, and in turn, expanded their teaching community beyond the district. Teacher #4 believed that Twitter changed them professionally by seeing the challenges that educators faced in similar sized districts and how they overcame those obstacles. In addition to connecting with other educators, Teacher #4 also stated that Twitter provided them the opportunity to grow professionally by connecting them with professionals outside of the educational field.

Teacher #5

Teacher #5 was a technology teacher for 20 plus years and was 41 to 50 years of age. Teacher #5 explained that Twitter impacted their professional development by providing them access to educational articles related to their curriculum. They explained

that they utilized Twitter to find resources to help implement spreadsheet activities within their course. Outside of the classroom, Twitter gave Teacher #5 access to professional development articles that were relevant to their instruction. They also recorded that Twitter provided them with enrichment opportunities that they had implemented in their classroom. Twitter also connected Teacher #5 with other teachers in their discipline.

Teacher #5 explained that they believed Twitter allowed them to connect with other educators that dealt with similar issues in small districts. Spending time on Twitter added content knowledge to their profession, something that the district was never able to provide. Teacher #5 also stated that Twitter had not given them opportunities for connection beyond their profession, as they generally did not use the platform for any reason other than educational purposes.

Teacher #6

Teacher #6 was a physical education/health teacher with 12 to 20 years of teaching experience. The teacher's age ranged from 31 to 40 years of age. Teacher #6 explained that Twitter had been impacting their professional development for quite some time, as they had been utilizing the social media platform to recognize student achievements. Additionally, they had recently been using Twitter to gather new activities for their students. They experienced successes from the new resources that they had implemented in their classroom, and students enjoyed the new lessons.

Teacher #6 explained that even though they had not been impacted much by teacher-teacher interaction on Twitter, that was a goal for them in the future as they looked to connect with other educators across the country. They also explained that

Twitter impacted their teacher-content interactions as they discovered new content ideas and had implemented them successfully in their classes.

Teacher #6 described that Twitter changed them professionally by helping them grow on a daily basis. They also described how new strategies are just a "tweet" away, and they are constantly changing and evolving. The teacher believed that they are expanding their knowledge through improved subject activities that they find on Twitter, which they can then take to their classroom and implement into their lessons. Teacher #6 stated, "Twitter allows teachers to go beyond the educational field. It's endless possibilities of content and just communication [that] lets teachers expand on what they know."

Teacher #7

Teacher #7 was a science teacher with 12 to twenty 20 years of experience and 41 to 50 years of age. They explained that Twitter impacted their professional development by increasing their interaction with other educators and students. Teacher #7 found more options for accessing professional development on Twitter and implemented some of the new strategies and activities in their classrooms. Outside of the classroom, Teacher #7 wanted to find more options for accessing professional development on Twitter.

Teacher #7 believed that Twitter increased their teacher-teacher interactions by allowing them to connect with other teachers outside of the district. They also explained that Twitter impacted their professional development with teacher-content interactions by providing access to the latest news pertaining to their subject content. Teacher #7 believed that Twitter impacted their professional learning community by giving them the

opportunity to quickly engage with what was happening in programs at other schools, and to learn how to implement those programs within their own classroom and building.

They also believed that Twitter had been beneficial to them professionally, as it provided updates that were valuable when implementing new strategies in the classroom. They also explained that Twitter allowed them to see the work of other students and educators before implementing any new activities in their classes. Teacher #7 explained that through Twitter, they had been able to make and maintain connections with people outside of the educational field, such as students who had graduated and were part of the science program while in high school.

Discussion

The survey instrument was generated to allow teachers to explore their understanding and use of social media as a professional development tool in the educational community. Teachers were asked to define their role in the small rural district, years in education, and age range. The age of the teachers was collected to determine if there were any trends in the survey teachers' Twitter activity in relation to their age. Teachers were asked if they had a social media platform that they used for professional development opportunities. If they did, they could continue on with the survey.

The teachers were asked how frequently they used Twitter on a professional basis. Then, the survey gave them a list of activities that could be performed on Twitter, such as sharing a link, researching a new strategy, resharing a resource, following a link shared by others, reading posts marked by an educational hashtag, engaging in professional dialogue, seeking educational advice, or providing help or advice to other

professionals. The teachers were given the option to identify how often they utilized Twitter for educational purposes into four categories: Never, Sometimes, Regularly, or Daily.

Nine open-ended free response questions were included in the survey. Teachers were asked how Twitter has impacted their professional development, how Twitter has impacted their professional learning communities, and how Twitter has changed them professionally. Teachers could answer these questions with an open-ended response.

Survey responses were presented graphically for analysis and demographic data was used to analyze any trends. Open-ended questions were organized based on three research questions:

- How has social media, such as Twitter, impacted professional development for you professionally?
- What are the professional impacts (if any) of using social media on teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions?
- What professional growth changes have you made as a result of using social media as a teacher?

The gathered survey responses were analyzed through the use of Google Sheets, a spreadsheet that created tables, charts, diagrams, and figures. Data was organized based on the use of social media and years of social media experience. Open-ended questions were divided by common themes relating to the use of Twitter. The themes were the community of use, practice, and knowledge, and were sought and documented from the survey data.

Summary / Transition

From the data that was collected from the surveys, interviews, and classroom observations to answer the research questions, the study revealed that social media, such as Twitter, provided teachers with effective professional development opportunities and also connected teachers to professional learning communities. The primary focus of professional development focuses on the improvement of a professions practice. The teacher's professional knowledge and teaching skills need to positively impact a student's learning and growth. It is prudent that school leaders create an effective professional development program for all teachers that is flexible and addresses the individual needs of every teacher. Only through individualized professional development can school leaders develop a professional growth program that allows for teachers to address and strengthen their weaknesses, build on their strengths, and connect with other educators to share stories and find solutions to classroom struggles. Schools need to eliminate the “one-size-fits-all” professional development and provide teachers with an effective model of individualized learning that can be also delivered to their students.

In Chapter 5, conclusions will address the effectiveness of individualized professional development and describes how it will be applied in a small, rural high school. The chapter will also provide how the implementation of individualized professional development will benefit the teacher and the students. Also, the fiscal implications of implementing individualized professional development and professional learning communities will be reflected from the data provided. From this chapter, future

plans will be presented based on the data gathered from surveys that addressed whether or not social media was beneficial as a professional learning development tool.

CHAPTER V

Conclusions and Recommendations

Introduction

As proven by the data in Chapter 1, professional development has not really changed much from the beginning of education. From traditional sit-down professional development lectures to a one-size-fits all presentation, professional development remains unchanged for many schools. However, with the accessibility of technology in the palm of teachers' hands, social media such as Twitter has given them the ability to engage in virtual professional development. Through social media, teachers can connect electronically with other teachers, find and share content instantly, and collaborate with other professionals around the globe. This chapter will state conclusions about the effectiveness of social media as a professional learning development tool and how teachers can use this model to help plan for individualized professional development.

In Chapter 1 of this research project, this researcher stated that professional development remains a financial problem for small, rural school districts. While little is known about the financial impact of professional development, small districts that are limited with their budgets have a difficult time finding ways to provide meaningful professional development to all teachers. Small districts provide professional development that may be cheap, unorganized, or irrelevant to content and subject areas, and therefore ineffective to many classroom teachers. Mandatory professional development without relevance, lacking support with collaboration and coaching follow-through, and respect for teachers' experience will always be counterproductive.

Districts are always looking for ways to save money and cut expenditures from their budget. Effective personalized learning and cheap professional development is always a demand for leaders in small, rural districts that are financially strapped. Districts look for effective and innovative ways to meet high standards and obtain high student achievement. With today's need-to-know-now technology, is social media as a professional learning development tool beneficial for teachers?

The purpose of this capstone research project was to focus on the use of social media as an effective form of professional development, and whether or not teachers were able to use it to learn from professional communities. The goal of the research was to see if teachers in small rural school districts were able to use social media to connect with other educators, learn and share relevant content, and also connect with other professionals outside of the educational field. From this study, the research would be able to determine if social media had a positive outcome on effective professional development for all educators while working with a limited-to-no budget.

To address the research questions that were established in Chapter 3, this study explains how the researcher conducted the research and will describe the results with supportive data. The data will describe how social media could be implemented in small, rural school districts in western Pennsylvania with no costs to the district, all while providing effective professional development to all teachers in all content areas. This data will also provide explanations to the professional impact that the use of social media has on teacher-interface, teacher-content, and teacher-teacher interactions.

The researcher began collecting data by surveying 28 high school teachers located in a small, rural high school in southwestern Pennsylvania. The survey was

created to collect data on the usage and effectiveness of social media as a professional learning development tool. The selected teachers for the initial survey were all high school teachers. Data from this initial data survey was analyzed to determine if the high school teachers utilized social media as a professional learning development tool, how they engaged with social media for professional use, and if the usage of social media provided growth opportunities.

Through the analysis of the initial survey, the researcher developed 10 open-ended free response questions that allowed the teachers to elaborate on their use of social media and the professional opportunities that social media has provided them. Final data was collected through informal interviews in the researcher's office. These interviews clarified the use of social media and classroom observations, in which the researcher examined the implementation of classroom strategies obtained from social media. The gathering of data through observations and interviews allowed the researcher to see the impact that Twitter may have had on the educators' teaching strategies, as well as how some teachers used Twitter as a consistent teaching and communication tool within their classes. The observations that occurred from the information collected through the data survey allowed the researcher to understand why teachers referred to Twitter to gain new teaching strategies and project ideas.

Conclusions

Research question #1: How has social media, such as Twitter, impacted professional development for you professionally?

As online professional development continues to expand through the use of social media, such as Twitter, more professionals are looking towards instant access to

gain knowledge. Twitter has individualized professional development and social media has allowed teachers to connect with other professionals outside of their own building. The main goal of professional development is to assist and prepare teachers by giving them the knowledge and skills they need to prepare all learners and assure they achieve high standards of learning and growth (U.S. Department of Education, 1996). Teachers are utilizing online professional development for self-growth and to develop new methods for delivering instruction.

Teachers are also able to share opinions and research articles that address issues they may be facing in the classroom. Twitter has allowed teachers to interact with other educators, students, and parents not only within the classroom, but also outside the school and district. By gaining individualized professional development, social media has enabled teachers to find specific apps and content that helps address students' individual learning needs. Twitter has also assisted teachers in communicating with students once they leave the room, communicating curriculum changes to parents, staying up to date with new technology and applications, and allowing them to expand their professional network outside of the district and across the globe.

As indicated in Chapter 4, teachers identified a variety of ways that they regularly engage with Twitter for professional development in the following manner:

- Share a link to an online educational resource
- Research a new strategy that they have implemented in class
- Reshare a resource that was shared by others
- Follow a link to a resource shared by others
- Read posts with an educational hashtag

- Post with an educational hashtag
- Engage in a professional dialogue using an @ reply
- Ask for help or advice from other teachers / professionals
- Provide help or advice to other teachers / professionals

In summary, teachers have utilized social media for professional development and have developed meaningful relationships that are designed to assist them in meeting the needs of their students. The combination of following professionals, sharing resources, reading online articles, or seeking out help and advice confirms that social media, such as Twitter, can be beneficial to teachers for professional development.

After reflecting on the first research question and the methods in which teachers are using social media as a professional learning development tool, the researcher can confidently state that social media is positively impacting the ability for teachers to gain, share, and research educational methods for the improvement of their practice. However, the data lacks how the quality of professional development may impact academic successes of the students and how this professional development could be measured. As stated above, teachers are regularly using social media as a reference tool that can be shared with other teachers and districts looking for free, individualized professional development. Any teacher who wants to connect, grow, and share teaching resources can contribute to their own professional development through the use of social media while also building upon their repertoire of teaching strategies.

Research question #2: What are the professional impacts (if any) of using social media on teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions?

During the analysis of the data from research question #2, a theme emerged through the research that indicated the impacts of using social media as teacher-interface, teacher-content, teacher-instructor, and teacher-teacher interactions are limited by the use of the respondent. Teachers are able to connect with other professionals in other professions and are able to see what other teachers are doing in their classrooms. They are also able to establish rapport with other teachers and gauge interest levels of various topics. Additionally, teachers responded that they have been able to grow professionally through teacher-content interactions by researching the latest news, finding useful strategies, and discovering new resources that allow teachers to share content with others.

Through the use of social media, teachers have been able to expand their professional network beyond the school building and district. Twitter gives them immediate access to useful content to implement within their classrooms, and a place to gather and share data on the new strategy. Teachers stated that Twitter has allowed them to expand their professional network beyond the classroom walls, foundation, and district boundaries by connecting with others through the use of social media. Finally, teachers have been able to discover resources that allowed them to meet the learning needs of students that may be difficult or disinterested.

Twitter has allowed teachers to share content more easily by following other teachers and hashtags. Twitter has also allowed teachers to research and implement in their curriculum interesting historical facts, people, etc., that are not identified in standard printed material. Also, social media has provided teachers the opportunity to incorporate enrichment activities for use in their curriculum and provide students with a

choice when it comes to expanding their learning. Teachers have also utilized Twitter to gather new ideas and use them immediately as many ideas come with proven results. Twitter has allowed teachers the ability to use the latest news pertaining to content, scientific research, and current events.

When educators engaged with social media outside of school, the following themes occurred:

- Informed user of what other professionals are doing
- Snapshots of educator's daily activities
- Provided enrichment activities
- Establish rapport with other teachers
- Stay up-to-date with the latest classroom trends
- Relevant articles and resources for classroom instruction
- Connect with other teachers outside the district
- Share student achievements and recognize others
- Current educational tools and developmental ideas
- Communicate what is happening in school

In summary of research questions #2, according to Huffman (2012), "Through appropriate professional development/training of faculty, social networking tools can be utilized to enhance the educational experience of students by extending the learning beyond the walls of the traditional classroom." Teachers need to expand their knowledge at all levels to meet the learning needs of all students. It is important that teachers continue to grow and seek opportunities through free platforms to gain as much knowledge as possible for the success of all students.

Research question #3: What professional growth changes have you made as a result of using social media as a teacher?

When compared to the teachers that did not use Twitter for professional development, teachers who did believe that social media has led to their professional growth. It is critical for the success of all students that their teachers have the ability to receive effective professional development and all necessary resources, including access to the most recent teaching strategies. Data from research question #3 revealed that social media can lead to teacher growth and that it does give teachers the ability to connect with other teachers, content creators, and professionals.

As indicated in Chapter 4, teachers found value through the use of Twitter for professional development. Teachers were able to connect with other teachers through the app, and that connection made it easy to find new strategies and activities to share in their classrooms and with other teachers. The teachers also stated that they were able to find new best practices that they have implemented in their classrooms by connecting with other teachers. Twitter allowed the teachers to stay up to date with new educational apps that gave them the opportunity to connect with students and share new applications with colleagues. Social media has also allowed teachers to share student achievement and showcase student projects with the community. Additionally, using social media has grown their professional network outside of the district, allowing them to connect with other educators and professionals around the world.

Respondents to research question #3 stated social media has created professional growth in the following ways:

- Quick communication with other professionals
- Connections with other professionals and to see other work
- Ability to gain new educational tools, developments, and ideas
- Heightened professional awareness on “hot topics”
- Growth in teaching strategies and technology tools
- Discover solutions to challenges that educators face
- Additional tools and resources available
- Ability to see student work and other educators
- Discover new material and resources
- New articles of relevance to current lessons
- Additional resources and strategies
- Connecting with other educators and districts
- Exposure to new professionals
- Instant collaboration and connection with teachers
- Endless content and expansion on knowledge
- Networking capabilities with other professionals
- Connections with businesses, corporations, and people in the educational field

In conclusion, teachers that utilized social media for professional growth opportunities have experienced the ability to connect with other teachers, educators, and professionals to expand on their professional knowledge. For many teachers, professional development has to be relevant and personal to be effective. Teachers found that Twitter was an effective and efficient way to locate resources and strategies to

implement in their classroom. Teachers were able to make new connections with other educators, business leaders, and professionals across a variety of fields that gave the teacher new material to add to their lessons.

Upon reflecting on research question #3 and the professional growth that teachers have achieved through apps like Twitter, the researcher affirms that effective professional development through the use of social media can positively impact the ability of teachers to connect with and provide new information for their students. Social media provides educators with the tools and training they need to learn new, relevant subject matter, and does so while promoting communication with others in their field. In essence, this researcher believes that social media offers teachers unlimited access to resources and a network of professionals to help them gain insight to the outside world.

Future Directions for Research

This capstone research project is the beginning of a journey into the use of social media as a professional development tool for teachers and how social media can connect teachers with professional learning communities, as well as a review of the history of education and the implementation of professional development. Additionally, the use of social media for professional development can continue to be researched in the wake of the Coronavirus pandemic, with studies shifting to the effective use of social media as a professional development tool before the pandemic versus the way it will be used after.

This researcher recommends the following for future researchers:

- Replicate the study and gather similar data on the use of social media in school districts for professional development reasons, and then compare and contrast the results.

- Replicate the study and investigate how schools are providing professional development to teachers using a remote or distance learning method and compare and contrast the results to this study.
- Conduct a case study of a specific small rural school district or a group of small rural schools that use free professional development resources for their teachers and compare and contrast the results to a school or a group of small schools that provide teachers the opportunity to use social media as a professional learning development tool.
- Investigate how small school districts across the commonwealth of Pennsylvania are using social media as a professional learning development tool and compare and contrast the results to this study.
- Conduct a research study where small rural school districts utilize social media for establishing professional learning communities within their schools and compare and contrast the results to this study.
- Investigate the effectiveness of social media as a professional learning community and compare and contrast the advantages and disadvantages of the professional learning community to schools that do not allow social media to be used to establish professional learning communities.
- Investigate, through the use of a case study, the impact of social media as a professional learning development tool on student achievement in a small rural school.

Even though the data in this capstone research project reveals a favorable image of social media as a professional learning development tool, the teachers that participated in the informal interviews in the researcher's office were all excited about any new technology and eager to learn. In the future, a capstone project could research the effectiveness of social media with a large group of teachers across a wider area that implemented social media on their own for the purpose of professional development and professional learning communities.

The results from the no-fiscal impact that social media has had on school districts could be researched against the results from professional development that costs districts thousands of dollars. A study could be conducted that investigated the effects of expensive "whole-group" professional development and compare and contrast against the use of social media with zero costs.

The issues that districts fiscally face today and the lack of effective, personalized, professional development provided to teachers has not been researched in depth within this capstone research project. Future studies could investigate the use of money for professional development and the ability to connect with all educators within the school system. Additionally, a study could be done regarding the use of money for professional development versus other expenses within the district's budget, and how the use of these funds academically impacted the teaching and learning within the district.

During this study, the researcher was impressed with the use of social media as a professional learning development tool without the directive from the principal to implement this model.

Summary / Concluding Statement

Through this capstone research project, it has become evident that social media is effectively being utilized by teachers for the purpose of professional development, or learning and connecting with professional learning communities. The researcher realized that the best way to cut expenses on things like professional development, conference costs, and teacher training while still meeting professional development needs is to provide teachers with the opportunity to learn how to use social media and integrate it into their classrooms. The researcher believed this project has proven that teachers are willing to grow and seek out help from other teachers and professionals when the opportunity arises, and social media makes it easy for them to do so.

As required by the commonwealth of Pennsylvania, districts must provide teachers with opportunities for professional development to improve their professional practice. This professional development should improve the teachers' practice by allowing them to focus on specific, individualized areas of need, but unfortunately, rural districts cannot always afford to provide individualized professional development to every single staff member. With the use of technology and the accessibility of connectivity applications like Twitter, Facebook, Instagram, and Pinterest, teachers in school districts around the world are finally able to connect with each other in their specific area of need for free. Social media provides the resources and flexibility to meet the personal needs of every teacher and the student whenever they need it, which has the power to revolutionize professional development inside and outside of the classroom.

This researcher has learned that some teachers believe that professional development should be the responsibility of the district and some teachers believe that

effective professional development is that of the teacher. A school with a strong leader that encourages individuality and growth is the key to a successful professional development program. A school must have a principal with an understanding of the power of social media and be willing to lead the charge of individualized professional development. The ability for school leaders and teachers to grow and improve their pedagogy must be shared between all parties and teachers must be willing to seek out their own professional development and growth with others. The teacher must be willing to take the lead in their classroom with new strategies and be willing to share those strategies with colleagues and other professionals.

Through this research project, this researcher discovered that teachers in the small rural school district have the ability to connect with other professionals and colleagues across the world when willing to take the time to learn how social media can help them achieve personal growth. During the study, teachers were engaged in numerous professional development methods and discussions on the improvement of their professional practice. The time that the teachers spent researching strategies, engaging in professional conversations with others, and sharing stories and student work with others occurred by their own willingness, without a directive from the principal or district.

Many of the teachers in this capstone research project indicated that they were using Twitter, Facebook, and Instagram to communicate and engage with their students, parents, and other professionals. They have discovered the power that these applications have when researching educational articles and materials that could be applicable in their professional practice. In the future, this researcher would like to continue to expand

on this research and implement professional learning development methods using social media applications and establishing professional learning communities with other members of the educational community. For example, school counselors could benefit from the unlimited resources that are available online regarding mental health, relationships, career building, and the importance of student self-advocacy.

With the movement to online learning and a hybrid learning environment, school administrators have the power to shift the paradigm in the delivery of professional development and the ability to meet the needs of all stakeholders. This researcher believes that as schools begin to adapt to life in a post-pandemic world, school districts have the ability to change how they share ideas and collaborate with others. Social media applications will be a portal through which teachers can share new experiences and make lasting connections.

Definitions of Terms

Edchat: A conversation on Twitter denoted using an education-related hashtag. The conversation may take place at an appointed time or asynchronously over a long period (Whitby, 2010).

Hashtag: A symbol created using the octothorpe (colloquially referred to as the pound or number sign) (Doctor, 2013).

Professional development: Development in one's profession, e.g. through seminars, courses, etc (Professional Development, 2010). According to *Learning Forward* (formerly the National Staff Development Council) and adopted by ESEA, it is a "comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement" (Choy, Chen, and Bugarin, 2006). Avalos (2011) defines professional development as "is about teachers learning, learning how to learn, and transforming their knowledge into practice for the benefit of their students' growth" (p. 10).

Professional Learning Community: (PLC) is educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve (DuFour, 2020).

Teacher: Any professional educator who is involved in the field of education, including classroom professionals, school administrators, technology directors, or other specialists.

Timeline: A series of posts to Twitter that appear in reverse chronological order (About your Twitter timeline., 2020).

Twitter: A microblogging platform that allows educators from all corners of the globe to communicate in 280 characters or less and allows for the sharing of resources, discussion of best practices, and collaboration (Sheninger, 2019). According to Rodesiler (2011), teachers are using Twitter to establish “professional learning beyond the workshops provided in their respective buildings or districts as they receive and distribute content tailored to their specific interests in teaching and learning” (p. 52).

Tweet: A message of 280 characters or less that is posted on Twitter (Sheninger, 2019).

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APPENDICES

APPENDIX A

Consent Form

CALIFORNIA UNIVERSITY OF PENNSYLVANIA
INFORMED CONSENT TO PARTICIPATE IN AN ANONYMOUS RESEARCH SURVEY



Study Title: Is Social Media, as a Professional Learning Development Tool, Beneficial for Teachers?
Principal Investigator: Jason E. Pappas
Faculty Advisor: Dr. Todd Keruskin

Dear Frazier High School Teacher,

I am inviting you to participate in a research study about, "Is Social Media, as a Professional Learning Development Tool, Beneficial for Teachers?" You are being asked to participate because you are a high school teacher that may use social media as a professional development tool. The procedure involves completing a survey that will take approximately five (5) minutes. The survey questions will be about the use of social media as a tool for professional development. Through your participation I hope to understand your use of social media and needs for content specific, professional development.

This project has been approved by the Institutional Review Board (IRB) at California University of Pennsylvania. Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective 09/18/19 and expires 09/17/20.

Your participation is voluntary and there is no penalty if you do not participate. You may stop the survey at any time or skip any questions you do not wish to answer. There is no cost for the study or to participate and the level of research risk is minimal.

To protect your confidentiality, the survey will not contain information that will personally identify you, and I will not ask for your name. All information collected in this study will be kept completely confidential to the extent permitted by law. Survey data will be stored at a secure location on site at California University of Pennsylvania, Department of Secondary Education and Administrative Leadership, Room 310, Morgan Hall for the duration of the research project and destroyed at the conclusion of the study. Data will only be viewed by the researcher and presented anonymously when presented with the final project.

If you have any questions about completing the questionnaire or about being in this study, you may contact me at pap6679@calu.edu. You may also contact my research advisor at keruskin@calu.edu. If you have any study-related concerns or any questions about your rights as a research study participant, you may contact the California University of Pennsylvania IRB Board at instreviewboard@calu.edu

By completing this survey, you are indicating that you have read this document, have had any questions answered, and voluntarily agree to take part in this research study. You may keep this form for your records.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jason E. Pappas'.

Jason E. Pappas
Ed. D Candidate at California University of Pennsylvania

APPENDIX B

Institutional Review Board Approval 19_19-002

**Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.**

|

Dear Jason,

Please consider this email as official notification that your proposal titled “Is Social Media, as a Professional Learning Development Tool, Beneficial for Teachers?” (Proposal #19-002) has been approved by the California University of Pennsylvania Institutional Review Board as submitted.

The effective date of approval is 9/18/19 and the expiration date is 9/17/20. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

- (1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)
- (2) Any events that affect the safety or well-being of subjects
- (3) Any modifications of your study or other responses that are necessitated by any events reported in (2).
- (4) To continue your research beyond the approval expiration date of 9/17/20 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board

APPENDIX C

Survey Instrument

Capstone Research Project Survey

Teachers, I am conducting a research project for California University of Pennsylvania's Ed. D program. All data collected is anonymous and will be held in my office for a total of one year. Please take your time to answer all questions. No information will be collected to identify the person submitting the responses, including username or Gmail address. Logging in to your account to access this survey assures secure responses. I appreciate you taking the time to answer these questions completely. Once all surveys have been submitted, you will receive an email with the scheduled date for an appreciation luncheon. Again, thank you for your time and honesty when completing this survey.

* Required

1. What is your focused content area? *

Mark only one oval.

- English Language Arts
- Math
- History
- Science
- Technology
- Physical Education / Health
- Arts and Humanities

2. How many years teaching experience do you have teaching? *

Mark only one oval.

- 0 - 2 years
- 2- 5 years
- 5 - 8 years
- 8 - 12 years
- 12 - 20 years
- 20+ years

3. What is your age range? *

Mark only one oval.

- 20 - 25 years old
- 26 - 30 years old
- 31 - 40 years old
- 41 - 50 years old
- 51 + years old

4. How long have you had a Twitter account for networking with other educators? *

Mark only one oval.

- I don't have an account. (Ends Survey)
- 0 - 1 years
- 1 - 2 years
- 2 - 3 years
- 3 - 4 years
- 4 - 5 years
- 5+ years

5. How frequently do you use Twitter to engage in the following activities? *

Check all that apply.

| | Never | Sometimes | Regularly | Daily |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| Share a link to an online resource | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Research a new strategy that you implement in class | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Reshare a resource shared by others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Follow a link to a resource shared by others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Read posts marked with an educational hashtag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Post with an educational hashtag | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Engage in a professional dialogue using an @reply | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Ask for help or advice from other teachers / professionals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provide help or advice to other teachers / professionals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Describe how Twitter has impacted your professional development. *

7. What specific professional development from Twitter have you implemented in your classroom? *

*

- 8. Describe how Twitter has allowed you to access professional development outside of classroom time. *

- 9. How has Twitter impacted you professionally by teacher-teacher interactions? *

- 10. Explain how Twitter has impacted you professionally by teacher-content interactions? *

- 11. Describe how Twitter has impacted your professional learning community through teacher-interface, teacher-content, teacher-instructor, and/or teacher-teacher interactions? *

- 12. Describe how Twitter has changed you professionally. *

13. Explain how your content knowledge has changed as a result of using Twitter. *

14. How has Twitter provided you opportunities to grow professionally by connecting with professionals outside of the education field? *

15. Explain how Twitter has fiscally impacted your professional development. *

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