

2015

# Social Studies Teachers' Use of Twitter and #edchats for Collaboration

Eric Langhorst  
*Walden University*

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Instructional Media Design Commons](#), [Liberal Studies Commons](#), and the [Other Education Commons](#)

---

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact [ScholarWorks@waldenu.edu](mailto:ScholarWorks@waldenu.edu).

# Walden University

## COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Eric Langhorst

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

### Review Committee

Dr. Baiyun Chen, Committee Chairperson, Education Faculty

Dr. Daniel Baer, Committee Member, Education Faculty

Dr. Boyd Dressler, University Reviewer, Education Faculty

### Chief Academic Officer

Eric Riedel, Ph.D.

Walden University  
2015

Abstract

Social Studies Teachers' Use of Twitter and #edchats for Collaboration

by

Eric Langhorst

MA, University of Nebraska—Lincoln, 2001

BS, University of Nebraska—Kearney, 1994

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

June 2015

## Abstract

Past studies have indicated that teachers in the United States have limited opportunities to collaborate with peers; this limitation has been found to be particularly problematic for social studies teachers. An increasing number of educators are using the social media application Twitter to collaborate. Little research exists concerning social studies teachers' use of #edchats, a weekly recurring Twitter session. The focus of this qualitative case study was the collaboration that exists among social studies teachers participating in Twitter edchats. The theoretical framework was communities of practice. Transcripts of 10 edchat sessions in 2013 were coded with an a priori strategy, and emergent themes were triangulated with interviews from 7 of the most consistent contributors from the edchats. Emergent themes included close personal connections among participants consistent with communities of practice and a narrow focus on social studies-specific content. Findings were consistent with existing research describing a general lack of formal training on the methodology of incorporating Twitter and a general consensus among active participants that adopting new technologies was relatively easy. Results indicate the potential of #edchats as an asynchronous and synchronous form of collaboration but also illustrate the need for formal training to help educators who feel less comfortable with adopting new technologies. The project resulting from this study, a free professional development program designed to teach educators how to use Twitter, will contribute to social change by sharing the benefits of creating a collaborative environment through Twitter, thus freeing participants from the constraints of physical location and time at no significant cost.

Social Studies Teachers' Use of Twitter and #edchats for Collaboration

by

Eric Langhorst

MA, University of Nebraska—Lincoln, 2001

BS, University of Nebraska—Kearney, 1994

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

June 2015

## Dedication

This dissertation has never been considered an individual achievement. I dedicate this study to my family—my wife, Jayme, and our two daughters, Addison and Scarlet. Everyone in my family contributed to making this happen, and I hope that this degree serves as a testament to our value of education and the desire to never stop learning.

## Acknowledgments

There were many moments during this journey at which I thought I would never reach the end. Many people helped me accomplish this goal, some not even knowing the value of their contribution. I may not be able to list every individual who supported me along the way, but I would like to acknowledge some specifically.

This degree would not be possible without the loving support of my wife, Jayme. You are my rock, and I am so lucky that you said yes when I asked you out for ice cream at that graduate class. The days you helped me by telling me to go write, the hours you listened to me talk about my research, and the times you told me to keep going because you knew I could do it. This degree is as much yours as it is mine. I love you more than you will ever know, but that won't keep me from trying to show you.

Our girls—Addison and Scarlet. Completing this degree meant going off to write on occasion, but you both always inspired me by telling me that you knew I could finish it. You were excited to celebrate the benchmarks along the way, and I hope that as you grow up, this degree is an example of working toward a goal and believing in achieving something you might sometimes think is unattainable. You are a big reason why I decided to push forward, and I hope someday you will appreciate how much you inspire me. I can't wait to see the wonderful women you will become.

Mom and Dad, you have both supported me in everything that I have attempted to achieve, and this was no exception. I learned to value education from both of you growing up, and your example of hard work has been a consistent motivation in my life. A burger at Dairy Queen on I-70 with Dad was one of the turning points for me on this journey and provided me the motivation to finish the program. I thought you were crazy

when you told me many years ago that I would someday get a doctorate. You thought this was possible long before I ever dreamed about it.

My brother Kurt, whom I have always admired as a teacher. Being able to call you up on the spur of the moment and go watch a Royals game is one of the things I love most about living so close. Thanks for supporting me.

Dr. Baiyun Chen. I have been very blessed to have such a supportive doctoral committee chair. During a long stretch of inactivity on my part, you still believed in my ability to finish and supported me. Your feedback and insight were such important factors in my ability to finish the degree. Thanks for staying with me.

Dr. Daniel Baer and Dr. Boyd Dressler, as committee members you supported my research and always provided me a new perspective from which to view my study. I appreciate the time you spent to make my study better.

Dr. Julie Moore, my principal at Discovery Middle School in Liberty, Missouri. When I came in one day and told you that I was thinking about quitting my program because it was too much, you said you wouldn't let me quit. Thanks for your support and the push to get it done. Your leadership has created an amazing building that makes me excited to come to work each day. You provide me the freedom to try new things in my classroom, and I appreciate all your support.

My peers at Liberty Public Schools, who inspire me every day. It is an honor to work with you. I consider you not only colleagues, but friends as well. So many of you have supported and encouraged me as I have worked on this degree, and I thank you.

I want to thank all my teachers at Howells Community Catholic Schools and Howells High School in Howells, Nebraska. I was incredibly fortunate to have teachers

who cared so much and took time to invest in me. You taught me to write and think, and I carry those lessons with me everywhere each day. I want to especially thank Janet Fritzinger, who taught me to appreciate literature and the fundamentals of writing, an essential skill used every day as I wrote this dissertation. I also want to thank Nancy Touil, who ignited my passion for technology when she decided to spend her summer teaching the grade school kid next door how to write BASIC on an Apple IIe and insisted that I also learn how to type. I will always be a Bobcat and proud of my hometown.

I still owe so much to Dr. Karen Eifler, who taught me perhaps the most valuable lesson of my career in her social studies methods class at The University of Nebraska—Kearney in 1994: “History is a fun and exciting subject. Think outside of the box in reaching students. Be creative and make it fun.” That philosophy has inspired me for the past 20 years and is the reason why I am still in the classroom today. Thank you.

Thanks to everyone at Caribou Coffee in Liberty, Missouri. Much of my paper was written at the big wooden block table early in the morning with a mocha or a hot apple cider. Thanks for letting me hang out and work.

Finally, thank you to Walden University for presenting me with an opportunity to achieve something that I had previously thought was unattainable.

## Table of Contents

List of Tables .....	v
List of Figures .....	vi
Section 1: The Problem.....	1
Introduction.....	1
Definition of the Problem .....	2
Rationale .....	4
Evidence of the Problem at the Local Level .....	4
Evidence of the Problem From the Professional Literature.....	8
Definitions.....	11
Significance.....	12
Guiding/Research Question .....	13
Review of the Literature .....	14
Implications.....	31
Summary .....	33
Conclusion .....	34
Section 2: The Methodology.....	35
Introduction.....	35
Research Design and Approach .....	36
Methodologies Considered and Rejected.....	37
Setting of Study.....	38
Selection of Participants .....	40
Secondary Data Collection--Interviews With Consistent Participants .....	41

Protection of Participants' Rights.....	43
Data Collection .....	43
Role of the Researcher .....	45
Data Analysis .....	45
Coding Procedure.....	46
Coding Procedure for Tweets From #sschat Sessions .....	46
Coding Procedure for Interviews With Consistent Participants .....	49
Validity and Reliability of the Design .....	52
Triangulation.....	53
Research Question 1 .....	53
Volume of Tweets Analyzed .....	53
Number of Participants .....	54
Pace of Conversation .....	55
Role of Moderators .....	56
Devices Used to Access #sschat Sessions .....	57
Communities of Practice and #sschat .....	59
Community of Practice Element 1--Common and Specific Domain.....	60
Community of Practice Element 2--Sense of Community .....	60
Community of Practice Element 3--Shared Sense of Practice.....	62
Research Question 2 .....	63
A More Interactive Conversation.....	69
Social Studies-Specific Content.....	71
More Choices and Control in Their Professional Development.....	72

Research Question 3 .....	73
Conclusion .....	77
Section 3: The Project.....	80
Introduction.....	80
Description and Goals.....	80
Rationale .....	82
Review of the Literature .....	82
Potential Resources and Existing Supports.....	91
Potential Barriers .....	91
Proposal for Implementation and Timetable.....	92
Roles and Responsibilities of Student and Others .....	94
Project Evaluation.....	94
Implications Including Social Change.....	96
Local Community .....	96
Far-Reaching.....	97
Conclusion .....	97
Section 4: Reflections and Conclusions.....	99
Introduction.....	99
Project Strengths .....	99
Recommendations for Remediation of Limitations.....	100
Scholarship.....	101
Project Development and Evaluation.....	101
Leadership and Change.....	102

Analysis of Self as Scholar .....	102
Analysis of Self as Practitioner .....	103
Analysis of Self as Project Developer .....	103
The Project’s Potential Impact on Social Change.....	104
Implications, Applications, and Directions for Future Research .....	104
Conclusion .....	107
References .....	108
Appendix A: The Project .....	130
Appendix B: Invitation E-Mail to Participate in Interview .....	165
Appendix C: Letter of Informed Consent .....	166
Appendix D: Interview Protocol .....	169
Appendix E: Project Formative Evaluation Survey .....	172
Appendix F: Promotion Flyer for Program Sent to Schools.....	174
Appendix G: NIH Certificate of Completion.....	177

## List of Tables

Table 1. Dates and Topics of #sschat Sessions .....	44
Table 2. Total Number of Tweets Analyzed.....	54
Table 3. Average Number of Tweets per Minute in #sschat Sessions.....	56
Table 4. Number of Tweets Containing a Reply .....	65
Table 5. Number of Tweets Containing a Link .....	66
Table 6. Number of Tweets Containing a Question .....	67

## List of Figures

Figure 1. Tweet that created hashtags.....	25
Figure 2. Sample of #sschat tweet including a question.....	28
Figure 3. Sample of #sschat tweet including an answer .....	29
Figure 4. Example of #sschat transcript coded for analysis.....	49
Figure 5. TweetDeck screenshot.....	75

## Section 1: The Problem

### **Introduction**

Social media has grown from the creation of several small networks of friends and colleagues to a tool that just over 1.2 billion users around the world log into on a regular basis (Berkman, 2013). The social media site Twitter can claim more than 500 million users (SemioCast, 2012) and has influenced events, from spurring revolutions (Houndshell, 2011) to being a contributing factor in electing the president of the United States (Kennedy, 2013). Social media has increased in popularity with educators and shown the potential to be a powerful tool for collaboration and an opportunity to deliver professional development, but the use of social media by faculty is still not widely accepted by many school districts (Forte, Humphreys, & Park, 2012). Each day, there are an estimated 500 million tweets posted by users, and it is estimated by Twitter that 4.2 million of these daily tweets are specifically education themed (K. Stevens, 2014).

Previous research has shown benefits for teachers who use social media in collaboration and improving their craft (MMS Education, 2012). MMS Education (2012) stated that although teachers are craving collaboration with peers, budget constraints and ineffective existing professional development are inhibiting this collaboration from taking place. Specific groups of teachers, such as those in rural areas and those who teach subjects that are increasingly being reduced such as social studies, would benefit the most from increased collaboration. Social media may provide some solutions to the challenges of meeting the needs of these educators, as a means of collaboration and sharing of social studies-specific content, similar to traditional professional development.

### **Definition of the Problem**

Teachers in K-12 classrooms in the United States believe that currently they are not provided enough time to collaborate with peers. Over two-thirds of teachers (67%) and three-quarters of K-12 principals (78%) who responded to an annual survey conducted in 2009 indicated that increased collaboration among teachers and school leaders would greatly improve student achievement (Metropolitan Life Insurance Company, 2010). Data from the same survey indicated that an average teacher in the United States spends 2.7 hours a week in structured collaboration with other teachers and school leaders, nearly half an hour per school day (Metropolitan Life Insurance Company, 2010). Recent reform movements—such as professional learning communities and response to intervention—have been largely focused on developing relationships among educators and improving the social structures that support teachers (Daly, Moolenaar, Bolivar, & Burke, 2010).

The decreasing amount of time provided to teachers to collaborate is especially alarming when one compares teachers in the United States with their counterparts in nations that consistently have high scores on standardized testing. On average, teachers in the United States spend about 80% of their total working time in direct classroom instruction, compared to teachers in most European and Asian countries, who spend 60% of their working time in direct instruction and are provided more opportunities for collaboration with peers (Organisation for Economic Co-operation and Development [OECD], 2009). Some academically high-achieving European nations—including

Denmark, Finland, Hungary, Italy, Norway, and Switzerland—designate specific time in the school day for the purpose of teacher collaboration (OECD, 2009).

The absence of meaningful collaboration with peers has been cited as a major contributing factor to teachers leaving the profession (Guarino, Santibañez, & Daley, 2006). A leading reason that emerging teachers cite as a factor in leaving the profession is the feeling of isolation (J. A. Moore & Chae, 2007). Education is one of the few professions in which there is little to no difference in the assignments given to teachers in their first classroom teaching assignment compared to veteran positions. In fact, often the first-year teacher is introduced to the profession with the most challenging assignments (Hunt, Powell, Little, & Mike, 2013; Waldsorf & Lynn, 2002).

Traditional views of learning as a solitary venture have been replaced by emerging research that emphasizes the importance of social interaction and collaboration in the learning process (Paavola, Lipponen, & Hakkarainen, 2004; Woodland, Lee, & Randall, 2013). The evolution of knowledge building as a 21st century skill to manage the accessibility of information emphasizes the social aspect of learning for the benefit of the larger community (Bereiter, 2002). Creating an intellectual community of learning among staff members has increased positive interaction of faculty and impacted curriculum (Putnam & Borko, 2000). An increase in teacher collaboration results in not only growth of content knowledge and gains in student learning (Moolenaar, Slegers, & Daly, 2012), but an increase in teacher job satisfaction as well (McLaughlin & Talbert, 2001). Creating and supporting professional relationships creates networks that are critical for sustaining the work of teaching (Daly, 2010).

### **Rationale**

The rationale for this study rests on evidence of the problem at the local level for social studies teachers at Lewis High School, as well as for social studies teachers throughout the state of Missouri as indicated in professional literature. The research of Moolenaar, Daly, and Darling-Hammond demonstrated the important role that teacher collaboration and quality professional development in subject content play in improving student achievement and building a supportive community for teachers (McLaughlin & Talbert, 2001). Communities of practice, including online professional learning networks, can provide K-12 social studies teachers with collaborative time with peers (MMS Education, 2012) and opportunities to build content knowledge that have been offered only in traditional professional development settings (Borko, 2004).

### **Evidence of the Problem at the Local Level**

Social studies teachers in Missouri are adversely impacted by a lack of time provided for effective professional development and collaboration, a lack of funding for adequate professional development, and isolation created by a considerable portion of the social studies teachers in the state teaching in rural areas with few available peers in their content area. Teachers believe that more collaboration with peers results in greater student achievement, but Missouri teachers are not always provided opportunities to collaborate with their fellow teachers. Only 43.7% of Missouri teachers responded that they had engaged in any individual or collaborative research on a topic of interest to them professionally (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). . A 2009 study by the National Staff Development Council indicated that only 13.9% of

Missouri teachers somewhat or strongly agreed that their building had a great deal of collaboration among staff members (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). Missouri teachers have little time to collaborate with fellow staff members in content-specific professional development. More than half of Missouri teachers (63.3%) stated that they had received less than a total of 16 hours of professional development specifically focused in their content area in the past 12 months (Darling-Hammond et al., 2009).

Professional development is one opportunity that school district leaders have to provide time for teachers to collaborate with peers. School districts in Missouri are currently attempting to provide quality professional development for teachers with less financial support from the state government. The Missouri Outstanding School Act of 1993 included a provision stating, “Each local district must annually set aside 1 percent of its state foundation payments for professional development” (Missouri State Senate, 1993). The Missouri state legislature removed this provision in 2010 with the passage of House Bill 1543 due to economic constraints. This new legislation specifies that in fiscal years 2011 through 2013, school districts are not required to spend 1% of their state funding in the event that the governor withholds full state formula funding (Wallace, 2010). The governor has continued to withhold full funding of education for K-12 school districts through the fall of 2013, and therefore school districts have not been required by law to spend 1% of their budget on professional development (Franck, 2012). The decline in state funding has negatively impacted school districts that are still required

to meet all existing state requirements for professional development on a decreased budget.

The decrease in available funding for professional development in the form of attending national and state conferences has impacted social studies teachers in the Lewis School District. The school district provided funding on a consistent basis between 2000 and 2007 for groups of social studies teachers to attend regional and state social studies conferences. The National Council for the Social Studies (NCSS) hosts annual conferences in different cities each fall. The Lewis School District sent teams of social studies teachers to the NCSS National Conference in 2005 (Kansas City) and 2006 (Washington, DC) and paid full expenses associated with their attendance. During the same period, the local school district also paid for teams of teachers to attend the state social studies conference hosted by the Missouri Council for Social Studies (MCSS). The MCSS hosts an annual conference for social studies teachers in various Missouri cities, including Kansas City, St. Louis, Jefferson City, and St. Joseph. These conferences are considered valuable professional opportunities, as teachers can attend sessions and workshops with specific social studies content as well as network with other social studies teachers and content experts from around the country. Between 2007 and 2014, the Lewis School District did not provide funding for social studies teachers to attend national social studies conferences and dramatically limited funds to attend the state social studies conference. The cost of attending these conferences has also contributed to the lack of attendees from the local school district. Full registration for the 2013 NCSS Conference in St. Louis was \$395 for a non-NCSS member without

including lodging, transportation, or meals (National Council for the Social Studies, 2013).

Unique challenges are present for educators who teach in rural schools across the country. According to a 2010 report from the National Center for Educational Statistics (NCES), 56.8% of schools in the United States are defined as rural. The NCES defines rural schools as either fringe, distant, or remote based upon the school's geographic distance from an urban area. The 2010 NCES report stated that 73.4% of school districts in Missouri are classified as rural and 45.5% qualify as distant or remote rural districts (U.S. Department of Education & National Center for Education Statistics, 2010). The number of Missouri school districts that qualify as rural districts is higher than the national average among states. Educators in rural schools are often required to teach multiple grade levels at the same time due to a limited number of faculty members (Monk, 2007) and have additional class preparation in comparison to peers who teach in larger communities (Guenther & Weible, 1983). As a result of these economic limitations, rural teachers are often unable to find support from colleagues in their school district with similar professional backgrounds or training (Fry & Anderson, 2011). Using technology can be one method of reducing the barriers of isolation faced by teachers in rural areas (Guenther & Weible, 1983).

Teachers in public K-12 schools located in rural areas also face challenges to receiving quality professional development in their content area. A 2004 policy brief by the Rural School and Community Trust illustrated several disadvantages rural educators face in obtaining professional development compared to their peers teaching in nonrural

schools in the United States. The Rural School and Community Trust study stated that teachers in rural schools throughout the United States received less professional development than teachers in nonrural schools, specifically in the areas of in-depth study of teaching assignment content area, state/local standards, teaching methods, and assessment (Jimerson, 2004). This same study also indicated that rural school districts across the United States receive less federal and state funding for professional development when compared to nonrural districts (Jimerson, 2004). Only 27% of teachers in rural schools in the United States agree that they have an active professional development program in their schools, compared to 40% of teachers in nonrural schools (Graham & Teague, 2011). Appropriate use of technology has the potential to expand professional development opportunities for teachers in rural schools (Redding & Walberg, 2012).

### **Evidence of the Problem From the Professional Literature**

The most common opportunity for teachers to collaborate with peers is scheduled professional development in their school district. Unfortunately, much of the professional development for teachers in recent years has been limited to offerings required by external forces and opportunities that frequently are short, one-time workshops generalized to appeal to large numbers of teachers, with little opportunity to interact or collaborate (Darling-Hammond et al., 2009). This model of professional development has been described as inadequate (Borko, 2004) and does not provide the opportunity for adequate collaboration among peers. The impact from traditional professional development has been described as fleeting (Togneri & Anderson, 2003) and

does not support building upon existing teacher knowledge (Campbell, Melville, & Bartley, 2012). Much of the professional development offered by school districts as a result of state mandates or predetermined school needs consists of a perceived expert giving information to novices with a narrow focus (Barab, Makinster, Moore, & Cunningham, 2001).

Traditional professional development fails to establish collaboration among teachers of similar content. Teachers in the United States today spend an average of 93% of their official workday in isolation from their colleagues (Metropolitan Life Insurance Company, 2010). Teachers are more confident in making choices concerning curriculum and instructional planning when they are provided the opportunity to discuss effective classroom practices with their peers (Routman, 2002). Professional development, especially when it involves teaching skills that help teachers incorporate technology, needs to transform into an ongoing model of learning, which should be valued and integrated into the culture of schools (Johnson et al., 2013).

The lack of effective professional development has particularly impacted social studies teachers in recent years. Since the implementation of No Child Left Behind (NCLB) federal legislation in 2001, there has been a consistent reduction in the amount of time devoted to teaching social studies, with the most significant reductions occurring in the elementary grades (Center of Education Policy, 2006). A 2011 study based on federal data revealed that elementary schools in the United States spend just 7.6% of their total instruction time on social studies (Stern & Stern, 2011). The emphasis on communication arts, math, and science as content areas is a direct result of these content

areas being included on mandatory high-stakes testing. In a 2005 study, 88% of elementary teachers and 70% of elementary principals in the state of Maryland responded that social studies was not a high-priority subject taught in their school (Maryland Task Force, 2010).

The lack of emphasis on social studies is also impacting secondary schools in the United States. A 2010 study by American Enterprise Institute (AEI) surveyed over 1,000 social studies teachers across the country, and their responses punctuated the declining focus on social studies in high school. Only 45% of social studies teachers indicated that their school district treated social studies as an absolutely essential subject area, and 70% said that social studies classes were a lower priority because of the pressure to show progress on statewide math and language arts tests (Lautzenheiser, Kelly, & Miller, 2011). There has been a significant reduction in the number of states that even administer social studies assessments on a regular basis. In 2012, only 21 states assessed students on a regular basis in social studies, compared to a total of 34 states that administered tests in 2001 (Levine, 2013). This study also reported that only nine states in 2012 required students to pass social studies content assessments to graduate.

The gradual de-emphasis of social studies in relation to the professional development offered to social studies teachers has been a result of the lack of focus resulting from non-inclusion on federal educational initiatives like No Child Left Behind and Race to the Top. In a 2011 interview with journalist Brian Bolduc, David McCullough, a Pulitzer Prize winner and best-selling author, expressed his concern for

the lack of emphasis on history in schools when he stated, “We're raising young people who are, by and large, historically illiterate” (Bolduc, 2011).

### **Definitions**

*Communities of practice:* A group of individuals who consistently converse to discuss ways in which to improve their craft (Wenger, 2006).

*#EdChat:* A weekly chat discussing educational issues that occurs at a prescheduled day of the week and time, uses Twitter hashtags to organize tweets, and allows participants to see all related content (Benwell, 2010).

*Favoriting:* Using an indicator a Twitter user can add to a tweet, typically signifying that the tweet is liked by the viewer or serving as an indicator that allows someone to return to the tweet a later time (Doctor, 2013a).

*Hashtag:* The # symbol is used to denote a hashtag, typically used to identify a topic in order to make tweets searchable and easier to filter (Twitter, 2013b).

*Personal learning network:* Commonly referred to as a PLN, a network of individuals who are typically selected to be a part of someone’s network in order to share expertise in order to help one improve their knowledge or reach a professional goal (Warlick, 2007).

*Retweet:* Occurs when a Twitter user forwards, or shares, a tweet from a fellow user with each of his or her own users, typically when attempting to pass along or share valuable information (Twitter, 2014a)

*Social network sites:* An Internet based application allowing participants to communicate within a bounded system, create profiles which may be either public or

private, and communicate with other users in the same application (Boyd & Ellison, 2007).

*Storify*: An online application that allows a user to create timelines or stories from social media such as Twitter and Facebook, often used to create a transcript of a Twitter chat using a specific hashtag (Storify, 2014).

*Twitter*: An online application which allows users to communicate with other users in text posts which contain up to 140 characters; updates are included on the user's profile page and can be created to be public or restricted to only specific users (Twitter, 2014a)

### **Significance**

This research is significant for the growing number of teachers who desire more collaboration among peers and more effective professional development at a time when school districts are reducing their financial support for these areas. Social media may provide a solution for some educators who feel either geographically or academically isolated from peers who teach the same content. Research has shown that collaboration among teachers creates correlations to both improving student achievement (McLaughlin & Talbert, 2001) and helping to retain inexperienced teachers (Guarino et al., 2006). A 2007 report whose authors examined over 1,300 studies seeking a correlation between teacher professional development and student achievement indicated that teachers who participated in at least 49 hours of professional development throughout the course of an academic year could increase student achievement by 21 percentage points (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). A majority of teachers in Missouri (63.3%)

have reported that they participated in less than 16 hours of professional development specifically in their content area in the past 12 months (Darling-Hammond et al., 2009).

Twitter has become one of the most popular social media applications for collaboration, with 500 million users worldwide (SemioCast, 2012) who create half a billion tweets per day (Twitter, 2013a). Teachers are joining social media in increasing numbers, and social media is now impacting almost every sector of education (Johnson et al., 2013). Over 90% of teachers surveyed in 2012 responded that social media was valuable or very valuable in connecting with professional colleagues (MMS Education, 2012). Educators are finding Twitter to be a valuable resource for collaboration and informal professional development that meets their individual needs.

### **Guiding/Research Question**

The purpose of this study was to examine the nature in which social studies teachers are using the social media site Twitter, and in particular the successful social studies Twitter #edchat, to collaborate. The recent emergence of Twitter as an educational tool and the potential benefits of creating an online community of practice for social studies teachers in a time period of budgetary concerns and lack of collaboration were the reasons for this study. The research question for this study was as follows: How do social studies teachers collaborate using Twitter #edchats as a form of professional development? Secondary research questions involved comparing the collaborative experience in #edchats to traditional professional development and the ease of initial participation by new users.

## Review of the Literature

The review of literature begins with an examination of communities as practice as a theoretical base. Communities of practice provide a solid theoretical base for a study of educators because many of their primary characteristics— participants sharing a common domain, having a willingness to share resources, and being active practitioners of their craft (Wenger, 2006)—can be found in collaborative networks of teachers. Teachers desire quality professional development and collaboration to improve their craft (Daly et al., 2010) but currently believe that the traditional format of professional development that is most commonly offered by their school districts is inadequate (Borko, 2004). A new approach to professional development, which focuses on the effective aspects of andragogy and informal learning, may be a more productive approach to helping teachers improve their craft. The rapid emergence of social media has impacted education, and teachers are leveraging the microblogging application Twitter to collaborate with peers on topics of specific content knowledge in organic and informal learning networks (MMS Education, 2012). Communities of practice are emerging on Twitter among teachers in the format of #edchats, a weekly Twitter chat in which participants share knowledge and experience on a specific topic (Herbert, 2012). Key search terms used in the research for my literature review included *social media, education, Twitter, collaboration, social studies, teachers, professional development, communities of practice, microblogging, hashtags, and #edchat*.

Research supporting the importance of strong social interaction to facilitate learning has deep roots in foundational educational theorists. Dewey acknowledged the

key role social interactions play in the learning process and in building knowledge (Dewey, 1950; Putnam & Borko, 2000). Vygotsky's work on the nature of social interaction in education demonstrates the importance of learning as part of a greater community and seeking guidance from a peer who has more experience or knowledge, the *more knowledgeable other* (Vygotsky, 1978). Learning should be viewed not as an isolated act by an individual, but rather as a process that incorporates the contributions of an entire community (Putnam & Borko, 2000).

### **Communities of Practice**

The desire to learn as part of a social group has long resulted in individuals seeking out like-minded peers who share the same interests and a desire to learn similar skills. Lave and Wenger in 1991 defined a social group whose members share common experiences and interests while also learning more about each other both professionally and personally as a *community of practice* (Wenger, 1991). Wenger later specifically defined a community of practice as a group of people who share a common interest, passion, or problem in a specific domain and want to gain additional knowledge in the specific area or learn more about specialization in that specific domain (Wenger, 2006).

The use of online communities and social media as a means of professional development has strong correlations to the field of andragogy, the study of how adults learn. Knowles is generally given credit for identifying the fundamental differences that exist between children and adults in how they learn (Knowles, 1980). Knowles's andragogy theory has been summarized into several components, some of which have direct implications for how educators use social media (Forrest & Peterson, 2006;

Merriam, Caffarella, & Baumgartner, 2006). Two components of andragogy that apply to the use of social media are the desire to immediately apply the acquired information to a problem-centered task and a readiness to learn. Social media provides an immediacy that does not exist in many traditional forms of professional development currently implemented by a major of school systems.

### **Qualities of Effective Professional Development**

While the quantity of hours of professional developed offered to educators can be measured numerically by hours, the difficulty lies with determining the quality of professional development. Rutherford (2013) researched a large collection of articles focusing on professional development and discovered four common characteristics that are consistently present in effective professional development:

1. the activity is sustained, ongoing, and intensive
2. it is practical, directly related to classroom practice and student learning
3. the work is collaborative and includes the sharing of knowledge
4. it is driven by the participant and generally constructivist in manner

The use of social media as a professional development tool for educators exists in each of these four characteristics that are consistently present in effective professional development. Educator participation in social media is not a “one stop” approach to learning but rather an ongoing experience that connects teachers to other professionals when they need to ask a question or seek advice (Swanson, 2014). Educators on Twitter are able to access fellow teachers, who are often able to provide specific ideas and recommendations about classroom practice based on their own experiences (Cleaver,

2013). The benefits of using social media to collaborate can also be extended beyond just online communication. Teachers who collaborate on social media often connect in face-to-face meetings at conferences or workshops in the future (Hansen, 2013).

### **Informal Learning**

The lack of adequate funding for professional development and the absence of sufficient opportunities to participate in effective professional development has spurred educators to pursue additional informal learning opportunities. Research has shown that for some educators, informal learning opportunities, such as group mentoring or one-on-one mentoring, are more effective than a large group of educators listening to one presenter (Boerema, 2011). Research in the area of social networks offers evidence that informal relationships among teachers are often the most important elements included in sustained educational reform. An additional distinction that exists between the traditional professional development model currently used in schools and informal learning is that informal learning is based on a teacher's specific interests, values, and needs (Downes, 2001).

The increased use of technology by educators has enabled additional opportunities for informal learning. Students and teachers have found the social media network site Twitter to be a natural format in which to learn and access information (J. Anderson, Boyles, Rainie, Anderson, & Boyles, 2012). Learners have also discovered that the informal environment of Twitter provides the additional benefit of immediate results, a quality that is often missing from more formal learning opportunities (Dunlap & Lowenthal, 2009).

Communities of practice are one informal format in which educators are meeting peers with similar professional development needs. The term *communities of practice* describes a group formed by people who engage in a process of collective learning in a shared domain of human endeavor (Lave & Wenger, 1991). A distinction is made between *communities of practice* and mere *communities*. A group can be a community and yet not be considered a community of practice. Wenger and Lave described three characteristics that are critical if the group is to be labeled a true community of practice: domain, community, and practice (Wenger, 1991). The members of a community of practice must have a common domain, sharing a defined domain of interest. The members of the community must have a common interest in pursuing their domain with a willingness to share information, help the group, and participate in similar activities. Finally, a community of practice should include only active practitioners in a commonly shared craft (Wenger, 2006). The organizational structure of a community of practice is a natural fit for allowing educators to share research and best practices because the learning is distributed across many participants and creates unique learning opportunities (B. Moore, 2008).

### **Communities of Practice and Online Technologies**

The emergence of social media and interactive technologies has the potential to expand the communities of practice model beyond the existing physical constraints of time and geography. One advantage of incorporating technology in conjunction with a community of practice is the ability to retain and share the information gathered as a result of the collaboration by the group (Kok, 2006). There are a variety of online tools

and applications that can be applied to the communities of practice model, and each one has unique features that provide opportunities for participants to maximize their experience in the group (Wenger, White, Smith, & Rowe, 2005). Previous research has shown participation in online communities of practice to be effective but somewhat difficult to quantify and measure over sustained periods of time (Tsai, Laffey, & Hanuscin, 2010). Online communities of practice are positioned to revolutionize the manner in which teachers share ideas and resources with other educators (Owston, 2009).

### **Emergence of Social Media**

One of the most revolutionary aspects of the Internet age is the emergence of social media—“forms of electronic communication (as Web sites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (as videos)” (“Social Media,” 2013). Social media began in 1971 when the first e-mail was sent and made significant progress in 1978 as the first bulletin board systems (BBS) were used (O’Dell, 2011). The creation of online social networks, including AOL Instant Messenger (1997), MySpace (2003), Facebook (2004), and Twitter (2006), introduced social media to mainstream culture (O’Dell, 2011).

The popularity and impact of social media are now global, as nearly one-third of all human beings on the planet currently use some form of social media (Johnson et al., 2013). The United States is one of the world’s most active countries in terms of social media proliferation. A study conducted in May 2013 showed that 72% of adults online in the United States use a social networking site, up from just 8% in 2005 (Brewer, 2013).

The explosion of social media use is not limited to young people. The 55-64 age demographic is one of the fastest growing groups of Twitter users in the United States, experiencing 79% growth since 2012 (Cooper, 2013).

### **Social Media and Education**

The proliferation of social media in society has also impacted educators. A recent poll showed that 85% of teachers have a presence on Facebook and 39% have a Twitter account (Lang, 2012; MMS Education, 2012). A majority of teachers who actively use social media currently maintain dual accounts—one intended for private use and one exclusively for professional use (MMS Education, 2012). Crobin and Russell [2008] found that a majority of teachers using social media believe that participation on these information networks improve access to their peers with more expertise.

Social media is increasingly being integrated in educational settings and incorporated in curriculum as an instructional tool. Social media has shown to be an effective instructional tool because it naturally correlates with how people learn (Bingham & Connor, 2010). Today's students have already begun adopting social media as a learning tool. Over 34% of millennials strongly agree that social media has helped them learn useful things more efficiently while accomplishing more (Patel, 2010). Educators need to catch up with the pace at which students are currently implementing social media to learn more efficiently (Kelm, 2011). Schools currently face an opportunity to consider the implementation of social media as a method to improve the educational environment for students (Dahlstrom, de Boor, Grunwald, & Vockley, 2011).

## **Professional Learning Networks**

Educators using social media create their own personal learning network (PLN), a group of professionals connected by common interests and professional goals, and engage in sharing best practices and ideas with like-minded individuals (Klingen-Smith, 2009). These networks of connections exist with or without the use of technology, and some may not commonly refer to them as their PLN (Lang, 2012). A PLN is similar to a professional learning community, a popular initiative that many school districts have implemented in recent years, but the PLN has the advantage of creating an extended community on a global scale (McLeod & Lehmann, 2012). The selection and maintenance of a PLN have been compared to the actions of a gardener keeping watch over his garden, sometimes requiring nonproductive connections to be eliminated and new contacts to be added over time (Warlick, 2010). A variety of online tools and applications are used today to create global PLNs including Twitter, Facebook, wikis, blogs, Skype, YouTube channels, and podcasts (Bauer, 2010).

Participating in an online PLN has the potential to connect teachers in ways that create real and meaningful growth (Collinson et al., 2009), which are simply not possible to replicate with networks that are offline. An online PLN greatly increases the number of potential participants to learn from, as physical geography is no longer a limitation (Lomicka & Lord, 2009). One advantage of an online community compared to traditional networks is the ability for social media PLNs to be asynchronous, available at any time, which meets the individual needs of the learners (Bauer, 2010). The creation of

an online PLN requires relatively little pre-existing technological skill, and thus it is easy for teachers to begin networking (Bauer, 2010).

### **Growth of Twitter**

The fastest growing social media platform in the world is the microblogging platform Twitter (McCue, 2013). Twitter was created by Evan Williams and Jack Dorsey in 2006 as a hack to a general pager (Bilton, 2013; Honan, 2011; Sagolla, 2009). Twitter experienced rapid global growth and passed 500 million users in July 2012 (Semiocast, 2012). In 2013, it was reported that 21% of all Internet users in the world accessed Twitter at least once a month (McCue, 2013). The average Twitter user spends 170 minutes a month on the social media platform (Isaac, 2013). Between 2009 and 2012, the number of Twitter users in the United States alone grew by 714% (McCue, 2013). Twitter reported in its 2013 SEC filing that users created over 500 million tweets a day (Twitter, 2013a).

### **Twitter in Education**

There has been a dramatic increase in the number of K-12 educators who are joining the ranks of Twitter users, although the adoption rate among K-12 teachers seems to be a little behind the adoption rate for faculty in higher education (Demski, 2010). The 2013 Horizon Report stated that “social media has now found significant traction in almost every education sector” (Johnson et al., 2013, p. 7). The percentage of teachers who had joined a social network increased from 61% in 2009 to 82% in 2012 (MMS Education, 2012). In a 2012 study, 48% of teachers who had a Twitter account responded that they visited the site weekly or more frequently (MMS Education, 2012).

Teachers are building connections and expanding their professional networks through the use of social media (Forte et al., 2012). The fastest growing demographic for social media use is young teachers, but there is also considerable growth with veteran teachers—an important note, as veteran teachers generally hold positions of leadership and decision making in their school district (MMS Education, 2012).

Research has shed light on how educators use Twitter professionally compared to how the general population uses the social media site. Teachers tend to share more information in their tweets and use the medium as a venue for sharing more often than the average Twitter user (Forte et al., 2012). It is common for most educators, 80% according to one study, to have separate social media accounts for academic and personal use (MMS Education, 2012). Teachers using Twitter now benefit from a sizable number of peers to follow (Dunlap & Lowenthal, 2009). An overwhelming percentage of teachers, 91%, responded that they find social media either “valuable” or “very valuable” to connect with professional colleagues (MMS Education, 2012). Some research has shown that much progress remains to be made, though, for teachers to fully embrace Twitter as a professional tool. A majority of teachers on Twitter tend to follow and be followed by large numbers of teachers outside of their own school district and very few teachers within their own (Forte et al., 2012).

Despite research demonstrating positive and effective uses of social media in education, preservice social studies teachers are provided almost no training relating to the use of social media as an instructional tool in their preparation to teach (Valdez, Reich, & Berson, 2010). This appears counter to evidence that demonstrates college

students are incorporating social media successfully in their own academic life. A study of college students stated that student use of Twitter for academic purposes increased 18% between 2011 and 2012 (Dahlstrom, 2012). More specifically, research has shown that social studies preservice teachers benefited in various ways from social media collaboration with preservice social studies teachers from other universities (Hilburn & Maguth, 2012). The social studies teachers being prepared today must be equipped to teach in a social media-rich environment (Fisher & Baird, 2005).

### **Use of the Hashtag in Social Media**

The proliferation of Twitter has resulted in an abundant amount of information being shared on a continual basis around the world. Twitter currently estimates that over 500 million individual tweets are being shared each day (Twitter, 2014b). An effective means of curating this data is required to search and filter the information that will specifically help perform a specific task or goal and is critical to utilizing social media's vast potential. The introduction of hashtags has made the task of managing and accessing data on social media much easier.

The first use of a hashtag occurred on August 23, 2007 by Chris Messina (Doctor, 2013b). Edwards wanted to create smaller inner circles of content within the vast expanse of social media and believed including a symbol within a tweet would make it searchable and distinguishable from others. He choose the hash or pound symbol, “#” as the symbol which would be included before the desired metadata tag to make it distinguishable from other tweets. Edwards tweeted “how do you feel about using # (pound) for groups. As in [#barcamp](#) [msg]?” (Edwards, 2013) and the hashtag was born.



*Figure 1.* Tweet that created hashtags. From “The Inventor of the Twitter Hashtag Explains Why He Didn’t Patent It,” by J. Edwards, 2013, retrieved December 6, 2014, from <http://www.businessinsider.com/chris-messina-talks-about-inventing-the-hashtag-on-twitter-2013-11>

The first example of hashtags being used by a large group of Twitter followers was in October 2007 while wildfires were devastating the area around San Diego (Ahmad, 2013). People on Twitter began using the hashtag “#sandiegofire” to share locations of spreading wildfires and communicate information on evacuations (Zak, 2013). Another significant milestone in the use of hashtags occurred in 2008 as conservative politicians used the hashtag “#dontgo” to keep Congress in session for a vote on energy legislation (Zak, 2013). Twitter officially recognized hashtags in July 2009 when a feature was included which made all hashtags within tweets clickable links, thus demonstrating Twitter official embrace of the hashtag (Zak, 2013). The global power of using hashtags within Twitter was demonstrated by the widespread use of the “#bahrain” hashtag during the Arab Spring protests of 2011 as a tool to organize protests which led to an overthrow of political power (Huang, 2011).

### **Emergence of #edchats**

An organized and systematic use of the Twitter hashtag for educators was created on July 30, 2009, by Steven Anderson, Tom Whitby and Shelly Terrell with an innovation they named “edchats” (S. Anderson, 2012). The basic premise of an edchat is to create a Twitter hashtag that could guide themed conversations of educators on Twitter through the use of questions and themes. This revolutionary concept changed the way in which conversations occur on Twitter. Instead of a Twitter user only receiving information from the specific people that they follow on Twitter, their interaction on Twitter can now be determined by the topic, via a specific hashtag. Educators on Twitter wishing to connect with other teachers could now use the hashtag “#edchat” and reach anyone else using Twitter, regardless of if they follow them or not on their personal Twitter account. The common hashtag now connects anyone who is also utilizing the same hashtag.

The #edchat hashtag began being used by educators in tweets that shared links to resources, comments on best practices and to ask and answer questions from peers (S. Anderson, 2012). Specific times were created for organized live chats in which a moderator could ask specific questions or guest hosts would be available to participate in conversations synchronously on Twitter. A statistical analysis of tweets using the #edchat hashtag during the first week in May 2010 by Devon Smith found over 4,000 tweets by over 1,000 individuals (Smith, 2010).

### **Emergence of #sschat**

In the summer of 2010, after a year of increased use of the #edchat hashtag, specific content areas began creating hashtags which could create conversations focused on a

more narrow scope to their content area. Greg Kulowiec and Ron Peck began a social studies specific hashtag - #sschat – on July 12, 2010 (#sschat, 2014). The #sschat hashtag quickly gained traction as the predominant hashtag used by social studies teachers sharing social studies content on Twitter. Any Twitter user could share content at any time using the #sschat hashtag on a tweet in order to gain the attention of social studies teachers monitoring the #sschat hashtag. A consistent time and day of the week – Mondays between 6:00 PM and 7:00 PM Central Time – was established for a designated weekly chat focused on a predetermined topic. Consistently each week since July 2010 #sschat has occurred on Monday nights with a variety of topics.

The #sschat website – [www.sschat.com](http://www.sschat.com) - is the online home of #sschat. Maintained by a group of volunteers, the site contains a schedule displaying the specific topics for upcoming #sschats, a brief history of #sschat, a form to suggest future #sschat topics, a link to the #sschat blog, information on #sschat tweetups at the annual National Social Studies Conference (NCSS), contact information and an archive with transcripts of past #sschat sessions (#sschat, 2014).

There are currently four individuals who serve as co-leaders of #sschat: Dan Krutka, Michael Milton, Joe Sangillo and Melissa Seidman (#sschat, 2014). The co-leaders help determine the topic for upcoming #sschats, typically weeks in advance. Topics for #sschat are occasionally pulled from current events, specific historical events or best practices. Some topics from 2014 #sschats include: assessment in social studies, teaching history with primary resources, close reading and C-SPAN resources in the classroom (#sschat, 2014).

The established topic of each #sschat is unique but there are norms and guidelines that help to make the chat consistent and manageable for participants. The co-leaders typically open #sschat with a tweet introducing the topic and then asking everyone to introduce themselves. Sometimes a question is included as a prompt to help individuals introduce himself or herself in their first tweet – a recent book you have read or what subjects you teach. After introductory tweets are exchanged, the co-leaders introduce the first question of the evening. Tweets introducing a question typically include a capital Q followed by the number of the question for that evening. For example, the first question of the evening would include “Q1” in the tweet.



*Figure 2.* Sample of #sschat tweet including a question. From #sschat website, 2014, retrieved December 7, 2014, from <http://www.sschat.org/>

Tweets that answer a question customarily include a capital A followed by the number of the question the tweet is answering. A tweet including an answer to question one would include “A1” in the tweet.



*Figure 3.* Sample of #sschat tweet including an answer. From #sschat website, 2014, retrieved December 7, 2014, from <http://www.sschat.org/>

The number of total questions asked by the co-leaders during a one hour #sschat session varies but is typically four or six different questions.

### **Twitter in Education Concerns**

In addition to the excitement and potential benefits of incorporating Twitter in the K-12 school setting, there are some concerns and barriers to effective implementation. One common hurdle is the slow appreciation for the effectiveness of Twitter in the early stages of use by a new user. It is common for many new users of Twitter to see little or no tangible benefit before their network has been established (Lang, 2012). An additional difficulty for new users is a general lack of time to devote to learning how social media could enhance their professional career (MMS Education, 2012). Educators have voiced concerns over protecting one's privacy as a teacher on social media (MMS Education, 2012) and a lack of professional development describing how a teacher can effectively use Twitter (Goldfarb, Pregibon, Shrem, & Zyko, 2011). There is also discussion debating the negative impact our students may face by a bombardment of social media use (Turkle, 2012).

### **Barriers to Implementing Twitter in Education**

One of the most imposing hurdles to implementing social media in a school setting for teachers is the school district itself. Almost one forth (23%) of teachers who responded to a 2011 study on the use of social media in education reported that their school district does not allow teachers to access to social media sites within the school building (MMS Education, 2012). An additional teacher survey found many districts block social media use by both teachers and students because of the potential problems which could evolve from inappropriate social media use (Forte et al., 2012). School districts in some states, including Missouri and Florida, have written district policies preventing teacher and student interaction on social media in hopes of avoiding any potential abusive or inappropriate contact (Walker, 2012).

School districts are still working to comprehend how the relatively new tool of social media can be used legally within a school district's Internet network and within the constraints of federal funding. In order to receive federal E-rate funding, schools must demonstrate they are providing adequate filtering practices to ensure the online safety of all who use their network in compliance of CIPA (Children's Internet Safety Act), regulations which began in 2000 (Kharbach, 2013). Additional factors which influence schools to ban social media for students, and thus in many cases access for teachers using the same network, include the potential of bullying, difficulty in monitoring social media use and the potential of distraction for students (Dunn, 2012).

## **Benefits of Twitter**

Although a powerful benefit of Twitter is the ability to communicate in an asynchronous manner, educators have also discovered ways to create synchronous environments to facilitate communication with peers. By adding a hashtag to a tweet, #edchat or #sschat for example, tweets become searchable and provide a means to gather content of a similar topic. In 2007, several educators – Steven Anderson, Shelly Terrell and Tom Whitby – began scheduling specific time periods of the week in which individuals could tweet about a specific topic and use a designated hashtag so people could synchronously follow the conversation on Twitter (Herbert, 2012). The original chat used the hashtag #edchat, a term which now defines any regularly scheduled educational discussion on Twitter which uses a hashtag to help organize and disseminate information. The initial #edchat has birthed close to 400 topic specific educator chats on Twitter (Davis, 2011). Hashtags can be created for any topic imaginable and many schools are now publicizing their own hashtags to help student, parents and patrons easily locate information about a school event or building specific topics (Hobbs, 2013).

## **Implications**

One of the most imposing barriers to effective professional development today is finding the financial resources for a school to provide meaningful and ongoing professional development (Hess, 2013; Wasley & Hirsh, 2010). Using traditional models of professional development becomes cost prohibitive when sending teachers long distances to physically attend national conferences when considering travel, lodging and meal expenses (Cheatham, 2010). A teacher can spend an entire day networking online

interacting with peers, the type of activities which traditionally would require attendance at a conference costing at least several hundred dollars (Barnes, 2012). Teachers effectively using Twitter to create communities of practice can create effective collaboration opportunities with peers for virtually no financial impact to school districts since there is no subscription fee associated with using the social media site Twitter (Holmes, Preston, Shaw, & Buchanan, 2013).

An additional advantage of having collaboration taking place online using social media is the ability for participants to learn in both an asynchronous and synchronous format. A limitation of traditional professional development is that a participant must usually attend a presentation or event physically to fully benefit. Participating in a #edchat on Twitter can benefit a teacher who is participating in the live, regularly scheduled weekly event online as well as someone who is unable to attend in person and reads the archived transcript later online.

Participation in social media also allows teachers to find peers and colleagues that have similar content knowledge or experience in similar pedagogy. It is difficult for a teacher to locate and utilize peers within a very specific content area that can help them maximize the time they have available for collaboration. The growing number of teachers using Twitter creates a large pool of talent and expertise that can be accessed to help answer a specific question or concern (Dunlap & Lowenthal, 2009).

Teacher collaboration via social media networks, including Twitter, has the potential to bring social change and democratization to professional development for teachers across the country. The basic requirement to participate on Twitter – a computer

or device with Internet access – is available at a relatively low enough economic cost for entry to make this type of collaboration accessible to almost any teacher. The social impact on education by providing access to communication in a digital format can impact not only education in the United States but around the world (Simpson, 2014).

### **Summary**

Research supports the benefits of increased collaboration among teachers on student achievement (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007) as well as increased teacher retention (Guarino et al., 2006; J. A. Moore & Chae, 2007) and yet many educators do not feel these needs are being met within the current limitations of budgetary concerns and high stakes testing. Social studies teachers are in particular need of content specific collaboration to help improve civics education in the United States (Levine, 2013).

The increased popularity of social media, Twitter in particular, has had an impact on education (K. Stevens, 2014). Educators are using Twitter to collaborate with peers and are building Professional Learning Networks to connect with others who are teaching similar content, better meeting the needs of some individual learners (Bauer, 2010). The creation of organized Twitter chats, known as edchats, have developed into content specific chats focusing on more narrow topics such as #sschat (S. Anderson, 2012). Although there are existing barriers to full implementation of Twitter as an educational tool in all school districts, an increasing number of teachers are using Twitter to collaborate online this form of social media (MMS Education, 2012). Preliminary research outlining the benefits of social media among teachers offers the potential of

providing free professional development from peers with additional expertise (MMS Education, 2012).

### **Conclusion**

The increasingly large number of teachers now using social media in education, specifically Twitter, support a need for examining the potential uses of social media to help teachers collaborate on a global scale (Forte et al., 2012). Twitter can provide professional development in an environment which may prove more effective for teachers than some existing models of professional development (Boerema, 2011). The potential advantages of allowing teachers to collaborate with peers teaching the same content at virtually no cost to individual school districts is difficult to ignore. This study will examine the implications and barriers to supporting social studies teachers who have a desire to collaborate with other teachers via Twitter.

## Section 2: The Methodology

### Introduction

The purpose of this qualitative case study was to explore how social studies teachers use the social media application Twitter to collaborate in a scheduled format known as an *edchat*—in this case, an edchat that specifically involves social studies, called a *#sschat*. The research also examined how social studies teachers are using #edchats as a form of professional development. Technology that is readily available currently to teachers provides an opportunity to collaborate and share content knowledge in formats previously not possible due to constraints of funding and geography.

This study focused specifically on the weekly scheduled #edchat for social studies teachers known as #sschat, which takes place each Monday night between 6:00 p.m. and 7:00 p.m. Central Time during the year. This study provides insight into a currently under documented area, as research has been conducted describing educator use of online communities of practice but not specifically social studies teachers and their use of Twitter in #sschats. I used a qualitative research format to gather data and information describing how and why social studies teachers are using Twitter and #sschat.

The theoretical framework for this study was grounded in the theory of communities of practice, first introduced in 1991 by cognitive anthropologists Lave and Wenger (Wenger, 1991). *Communities of practice* are summarized by Wenger as “groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly” (Wenger, 2006). Three conditions must exist for a community of practice to exist: (a) a common domain of interest, (b) a community with

relationships, and (c) a shared common practice (Wenger, 2006). This study examined in part whether a #sschat session on Twitter can be considered a community of practice, or possibly a more narrowly defined community of practice such as a virtual community of practice (Dube, Bourhis, & Jacob, 2006).

My guiding research question for this study was the following: How do social studies teachers collaborate using Twitter, and specifically the edchat known as #sschat, as a form of professional development? The following three questions were created to generate data for this study and explore the use of #sschat by social studies teachers.

1. How do social studies teachers collaborate using edchats on Twitter, specifically #sschat, as a form of professional development?
2. How does participation in an edchat such as #sschat compare to more traditional forms of professional development?
3. How easy is it for new participants to begin collaborating with peers on an edchat such as #sschat?

### **Research Design and Approach**

A qualitative research design was selected for this study because it best matched the exploration of emerging methods and provided the opportunity to learn more about how teachers are using Twitter to collaborate with peers through the collection of information from multiple sources and the use of open-ended questions (Creswell, 2009). The chosen research design was appropriate because the study focused on the interactions of individuals, another hallmark of qualitative research (Creswell, 2009). This study involved describing how social studies teachers use Twitter to improve their practice, and

qualitative methods are required to describe and tell a story (Patton & Patton, 2002). In contrast, quantitative research designs focus on statistical results and narrower research questions, typically questions that are predetermined (Creswell, 2009). Qualitative results help provide the faces behind the statistics (Patton & Patton, 2002). Multiple sources of information were used in this study, including archived conversations, surveys, and interviews. The study incorporated a social constructivist worldview that allowed me to, as Creswell stated in 2009, a “look at the complexity of views rather than narrowing meanings into a few categories or ideas” (p. 8).

The research was conducted using a case study design. The case study design was selected because it offered the opportunity to be very descriptive and holistic (Glesne, 2011). For this study, I researched a particular online tool used by a specific group of teachers and thus created a bounded system, a quality that defines the design of a case study (Creswell, 2009). A case study allows the researcher to focus on the unique qualities of the activity being studied (Glesne, 2011). Additional qualities of the design that identify it as a case study are the use of highly descriptive language and the study of a phenomenon rather than an individual (Hancock & Algozzine, 2006). Hancock and Algozzine (2006) also described case studies as “more exploratory than confirmatory” (p. 24); as this study involved describing behavior rather than proving a hypothesis, it can correctly be described as a case study (Hancock & Algozzine, 2006).

### **Methodologies Considered and Rejected**

Other types of qualitative research considered for this study but ultimately not selected included grounded theory and phenomenology. Grounded theory was rejected

because the study would not include a constant comparison of data with emerging categories from different groups (Creswell, 2009). The results of a grounded theory study are also generally applied to other settings, but this study had a narrow focus on social studies teachers (Lodico, Spaulding, & Voegtle, 2006). The phenomenological strategy was rejected because this study would not follow a small number of participants over prolonged periods of engagement and an extensive time period (Creswell, 2009).

### **Setting of Study**

For this research study, I collected qualitative data on how social studies teachers use Twitter to collaborate with peers through the study of archived edchats of teachers who regularly participated in social studies #edchats. Once a week during the scheduled hour, every tweet posted on Twitter that includes the hashtag #sschat is considered part of that particular #sschat session. Any individual posting on Twitter can be an active participant in the #edchat by using this hashtag. The topic for the week (e.g., teaching about taxes) is predetermined by a group of moderators and is posted on the Social Studies #edchat webpage online for anyone to access (Cunningham, 2013).

The transcripts from these archived chats were coded to demonstrate the themes and trends that occur during #edchat sessions. The 10 #sschat sessions used in the study had 290 total participants ,who contributed a combined total of 2,821 tweets during the 10 selected #sschat sessions.

Data collection for this research study involved an examination of archived #sschat #edchats. Ron Peck and Greg Kulowiec created the first social studies #edchat, known as #sschat, on July 6, 2010, as a systematic approach to organizing social studies

teachers on Twitter to discuss specific prearranged topics (Cunningham, 2013). Every Monday evening throughout the year between 6 p.m. and 7 p.m. Central Time, an #edchat takes place in which any tweet including the hashtag #sschat is included as part of the session.

The #sschat hashtag has become an universally accepted hashtag on Twitter among social studies teachers to enable them to communicate throughout the week and as a means to filter and share information. People can use the #sschat hashtag at other times during the week on their tweets and often do use the hashtag to draw the attention of social studies teachers who are on Twitter. It is important to note that for this study, only individuals posting tweets that used the #sschat hashtag during the scheduled 1-hour time frame were considered participants in the #sschat session.

The topics for each week are predetermined by a group of individuals who act as moderators for the chat. The topics are announced in advance of the chat via the #sschat website and on Twitter using the #sschat hashtag. Selected topics in the past have included a wide variety of categories valuable to the practice of teaching social studies. For example, topics for past #sschats have included sessions on pedagogy, techniques for using the flipped classroom approach in social studies, and incorporating standards-based grading in a social studies classroom (Cunningham, 2013). Other topics narrow the discussion to ideas relating to a specific content area, such as teaching students about World War I or teaching students about the tax system in the United States (Cunningham, 2013).

Teachers on Twitter can participate synchronously, using the #sschat hashtag in their tweets and monitoring others using the same hashtag, or they can participate asynchronously later by viewing the transcript from the chat, which is posted on the #sschat website. For example, if I were interested in reading the tweets that took place during the #edchat on teaching taxes but I was unable to participate live, I could go to the #sschat website, view the transcript of all the tweets from that particular night, and still gain insight from the previously held discussion. It would be similar to reading a transcript from a meeting that took place in the past that I had not been able to attend when I still wanted to access the information from the discussion.

### **Selection of Participants**

The 10 archived #sschat sessions selected for this study produced a total of 290 participating individuals. For this study, a *participant* is defined as any individual who contributed at least one tweet using the #sschat hashtag during the specific hour designated as a #sschat session in one of the 10 selected sessions. Some of these individuals participated in more than one of the 10 #sschat sessions used for this study and in many cases contributed multiple tweets in a particular session. The analysis and coding of the transcripts from these 10 selected #sschat sessions were the primary methods of data collection. The transcripts of the #sschat sessions used in this study are publically available online at the #sschat wiki website.

Individuals who tweet during a #sschat session are willingly posting their tweets in a public forum, which anyone on the Internet can access. These tweets include a timestamp, the text of the tweet, the Twitter name of the individual who posted the tweet,

the number of times that tweet was favorited and the number of times the tweet was retweeted by other Twitter users. No permission is required to include these individuals' information from tweets in the study; however, in some examples in this study, the user names and real names have been removed to protect the privacy of the individuals.

### **Secondary Data Collection—Interviews With Consistent Participants**

In order to provide a deeper understanding of the motivations for an individual to participate in a #sschat session, secondary data were collected in the form of interviews with individuals who consistently participated in these #sschat sessions. These interviews helped corroborate the findings from the analysis of the tweets and provided triangulation to help determine findings.

Once the transcripts were compiled in a master spreadsheet consisting of all the tweets from the 10 selected #sschats, an analysis was conducted to determine how many different #sschat sessions each individual had participated in for this study. Twenty-five individuals participated in a minimum of four of the 10 #sschat sessions analyzed for this study. To help with triangulation and provide richer context describing the reason for participation, interviews were conducted with seven of these most active participants.

My first contact with the individuals interviewed in this study was via a tweet on Twitter in which I asked if they would be willing to participate in a research study. My introductory tweet had to be less than 140 characters and simply said, “Hi, I’m conducting research for a doctoral dissertation on teachers collaborating using #sschat, could I ask you a few questions?”

Once the individual responded with a tweet expressing interest in possible participation in the study, a second tweet was sent from me to the potential interviewee requesting an e-mail address to which I could send further information concerning participation in the study. The potential interviewee was sent an e-mail that included a description of the research study and my IRB approval information (Appendix B). Attached to this initial e-mail was a letter of informed consent (Appendix C). Once the individual responded via e-mail with consent for participation, e-mails with possible dates and times for the interview were exchanged. Both parties verified the date and time for the interview. Prior to the scheduled interview, the individual was sent a copy of the interview protocol with a listing of questions that would be included in the interview (Appendix D).

The seven interviews were conducted between September 9, 2014, and November 17, 2014. The interviews occurred online using the phone feature on Google Hangouts, which essentially is the same as a phone call made over a landline. Interview questions and a copy of the interview protocol were sent to the interviewee in advance of the interview. I took brief notes during the interview, which was also recorded using two different mp3 recorders to ensure successful capture of the audio. Following the interview, the audio was transcribed to a Google document by myself. This transcription, in all but one of the interviews, was completed within 48 hours of the completion of the interview, and a copy of the transcript was e-mailed to the interviewee for review and any necessary clarifications. Interviewees noted a couple of grammatical errors on the

transcripts in response after viewing, but there were no other requests for changes to the transcripts.

### **Protection of Participants' Rights**

Prior to conducting research, I requested approval from Walden University's Institutional Review Board (IRB), and only after gaining IRB approval did I conduct any research. Walden University's Institutional Review Board granted approval for this study on August 29, 2014, with IRB approval # 08-29-14-0161759. The individuals who participated in the #sschat sessions were doing so in a public forum, and specific permission was not needed to access and use their data. The data from this study is preserved on a flash drive, which will be locked in a secure location inside my home for a period of 10 years from the date of the study.

### **Data Collection**

The primary data collection effort for this research study was an examination of transcripts from previous #sschat sessions—a collection of 10 different #sschat sessions taking place between April 22, 2013, and October 14, 2013. The rationale for selecting these 10 chats was a desire to sample 10 #sschats from different times throughout the academic year. The first three #sschat sessions studied took place during the spring of the year (April–May), four sessions took place during the summer (June–August), and the final three sessions took place during the fall of the year (September–October). Each #sschat session has a topic determined in advance by the moderators. Prior to the weekly #sschat, the upcoming topic for #sschat is shared online at the #sschat website as well as tweets leading up to Monday evening. This advance notice allows participants to prepare

for the discussion. The topics covered in the 10 selected #sschat topics were varied, but all had a focus on social studies.

Table 1

*Topics of 10 Selected #sschat Sessions for Study*

Chat	Date of Chat	Topic
Chat 1	1. April 22, 2013	Teaching Taxes
Chat 2	2. May 6, 2013	Test Prep and Assessment
Chat 3	3. May 13, 2013	Reading in the Content Area
Chat 4	4. June 17, 2013	Best Lesson
Chat 5	5. June 24, 2014	Social Studies Can Be Spectacular
Chat 6	6. July 29, 2013	Google's 20% in the Classroom
Chat 7	7. August 18, 2013	Library of Congress Resources
Chat 8	8. September 9, 2013	Social Studies Conferences
Chat 9	9. October 7, 2013	Elementary Social Studies
Chat 10	10. October 14, 2013	Imperialism and Explorers

These archived transcripts are openly available to the public on the Internet at the #sschat online wiki with a copy of the transcript provided by the application Storify.

Storify is an online application that creates a transcript of live events on social media so that they can be accessed at a later date. The transcripts of these 10 #sschats were accessed on the #sschat website. All transcripts are accessible online at the archive webpage in a PDF format. The transcripts were transcribed to a spreadsheet format on Google Sheets with information from each tweet—the date, the name of the Twitter user who posted the tweet, the order in which the tweet occurred in the chat, and the text of the tweet. Additional information for each tweet, including whether the tweet included a reply to another tweet or whether it included a link, was also included. Once each individual tweet was transcribed to the spreadsheet, it was easier to code and group

according to the author and type of tweet. Once added to the spreadsheet, the tweets were examined to look for any inconsistencies. Occasionally, the Storify application will erroneously duplicate a tweet in the final copy of a transcript. These irregular duplicates were deleted from the transcript.

### **Role of the Researcher**

As the researcher it was important for me to understand my role in collecting data in a non-biased manner and not become an advocate for the cause I was researching. The researcher should always remember that their primary role is that of researcher, their secondary role is as a learner (Glesne, 2011). I am an active member in the social studies social media environment but have participated in the scheduled #sschat space in a very limited manner for the past two years intentionally so that I could maintain my position at a later date as a researcher instead of frequent participant. My familiarity with the subject benefitted my role as researcher but my exclusion from participating in the #sschat discussions also allowed me to be viewed as an outside observer.

### **Data Analysis**

It is most beneficial if the researcher does the transcription of the primary sources instead of having someone else perform the task, enabling a more accurate transcription and allowing the researcher additional exposure to the data (Hatch, 2002). The transcription process provided data that included the name of the contributor, the text of the tweet, the time and date, if it has been favorited or retweeted and if it contained a reply, a question or a link. This transcript data in text format on a spreadsheet made it easier to organize since it was then possible to perform a search for particular elements –

such as a reply or a question. Once the individual tweets were filtered and searched on the spreadsheet they were grouped according to similar characteristics and tags. This data was organized in a thematic approach using codes in order to help the researcher apply the information gathered in transcription. Case studies often use a coded approach to identify themes and trends in the data (Stake, 1995).

### **Coding Procedure**

Two sources of data were coded for the purpose of this study. The primary source of data used in this qualitative study was the collection of transcripts from the ten #sschat sessions selected for this study. In order to help with triangulation and provide additional insight to the information gathered from the #sschat transcripts, interviews were conducted with seven of the most consistent contributors to the selected #sschat sessions. The transcripts from the #sschat sessions and the interviews were coded using different formats.

### **Coding Procedure for Tweets From #sschat Sessions**

The first set of data that was coded were the tweets from the #sschat sessions. Each individual tweet from the ten archived #sschat sessions, a total of 2,821 separate tweets, were transcribed from the archived Storify in PDF format online to a Google spreadsheet. This transcription process was time consuming but vital to the study. Each tweet was entered into the spreadsheet with separate columns for the date of the #sschat session, the order in which the tweet occurred in that particular session, the Twitter name of the individual who typed the tweet and the text of the tweet itself. By entering each of

these items as a separate column on the spreadsheet, I was later able to filter the data and organize the information according to common characteristics.

While coding the tweets from the transcripts of the #sschat sessions, the researcher applied a variety of codes to individual tweets. The researcher started with a set of codes established prior to beginning the process, a set of codes known as priori codes (Saldana, 2009). As the coding process developed, the researcher also included emergent codes which were created as a result of working with the data (Saldana, 2009).

The act of applying codes to data should not be thought of as merely labeling but as a means to link important themes together (Saldana, 2009) and this process did help themes appear from the tweets as the coding of the #sschat sessions progressed. Each transcript was read and reread to check for accuracy and to ensure that no codes were inadvertently missed (Lodico et al., 2006). Additional notes and observations were collected during the coding process for possible future reference, a procedure typically referenced as a memo (Saldana, 2009).

The data from these sessions were coded using a typological analysis approach, starting with predetermined categories for organization and then an ultimate goal of understanding the larger process later (Hatch, 2002). Interpreting the intent of a tweet from simply reading the text can be very subjective and open to a wide range of speculation. Devon Smith in 2010 performed an analysis of tweets containing a specific hashtag over the course of one week on Twitter. The number of tweets using the specific hashtag of interest numbered over 4,000 (Smith, 2010). In order to analyze these tweets less objectively, Smith used a crude algorithm using elements of the tweets to filter the

tweets into categories. Smith assigned any tweet containing a “@” symbol as a reply, any tweet with a “?” as a question and any tweet containing “http:” as a shared link (Smith, 2010). Smith’s use of symbols within the tweets to assign intent was the genesis for the coding procedure used in this study.

The tweets analyzed for this study from the ten selected #sschat sessions were individually coded on the spreadsheet. A column for each of these four categories allowed the researcher to make a notation if the tweet met the specifications for that category. The four categories applied to the individual tweets included:

1. Reply – any tweet which included the name of another Twitter user, using the “@” symbol
2. Question – any tweet which included a question either by using the “?” in the text of the tweet, or a tweet which may not have included the “?” but clearly had the intent of asking a question
3. Link – any tweet which included a website link to share a resource
4. General – tweets that did not contain any text which would have classified it as a reply, a question or a link according to the parameters defined by this study

139		Still time for Q2: What resources can you find and share from the " Classroom Materials " link? LINK #sschat	q	l	
140		A2 - At the LOC Institute they mentioned that all of the lesson plans have been used in classrooms - effectiveness in the real world. #sschat			g
141		#sschat Summer from Texas joining in. Sorry I'm late What question are we on?	q		
142		Hey there #sschat The LOC has a music jukebox with music from different eras #sschat			g
143		@XXXX Will you be showing films based on political lit too? @42thinkdeep @mswenner #sschat	r	q	
144		I'm looking at the lesson plans. I'm impressed by there depth, but I also tend to prefer the quick lessons of @xxxx #sschat	r		
145		@XXXX @XXXX developed their lessons with grant from @XXXX , so we're buddies! #sschat	r		
146		Hey Summer! @XXXX Q2: What resources can you find and share from the " Classroom Materials " link? #sschat	r	q	
147		There is a section on Advertisements. LINK #madmen #sschat			l
148		@XXXX @XXXX I love the SHEG lessons too! I use that the most. Docs Teach 2nd, LOC 3rd. #sschat	r		
149		@XXXX Here's the link: LINK #sschat	r		l
150		@XXXX Agreed! Have you tried their Reading Like a Historian? #sschat @XXXX	r	q	
151		Time to follow breadcrumbs back to Teachers Page for Q3. Any more discoveries to share first? #sschat		q	
152		@XXXX @XXXX They use SHEG as an inspiration for their lesson format as well as Project Zero LINK #sschat	r		l
153		Presenter at summer institute showed us LINK GOLDMINE for US & Gov classes #sschat			l
154		@XXXX That sounds like #tap day! @XXXX @XXXX #sschat	r		
155		Q3: What links help us learn about using Library of Congress primary sources in the classroom? #sschat		q	
156		House resources: LINK #sschat			l
157		@XXXX Love the 9 Legislative Process videos: LINK #sschat	r		l
158		Q3 hint: Using Primary Sources: LINK #sschat			l
159		Any of you have great go - to images for early in year to teach sourcing? #sschat		q	
160		So close to the start of #sschat - which is kind of like " social studies teachers date night " !			g
161		@XXXX @XXXX Me too!!! Can we expect WH LPs this school year?? "fingers crossed" #sschat	r	q	

Figure 4. Example of #sschat transcript coded for analysis.

It should be noted that a single tweet could be categorized with multiple codes. For example, a tweet may contain a reply and include a website link and thus be categorized as containing a reply as well as a link. This approach to coding allowed patterns to emerge on how communication takes place during the course of an #edchat session on Twitter among participants.

### Coding Procedure for Interviews With Consistent Participants

The second set of data coded for this study were the transcripts of the interviews conducted with the seven consistent participants in the #sschat sessions analyzed. The researcher used the audio recording of the conducted interviews to create the transcriptions. The dialogue of both the interviewer and interviewee are included on the text transcription. The text was transcribed to a Google Document.

Organization while coding is essential due to the large amount of data collected. A codebook was created to systematically organize the coding process and throughout the process these codes were also further refined. Once transcribed to the Google Document,

the researcher applied codes to the text of the interview that represented different topics and themes relating to the research questions for this study. Initially a total of nine different codes were established by the researcher: collaboration, choice, synchronous / asynchronous, technology comfort, tools, comparison to traditional professional development, motivations, peers and introduction to #sschat. It is suggested that a researcher use a minimal number of codes initially and add codes, and even sub codes, if needed during the process (Saldana, 2009). Once the researcher began coding the transcripts, two more codes emerged which helped organize the themes and topics as they related to supporting the research question: personal connections and examples in the classroom which resulted from experiences on #sschat. These two additional codes brought the total number of codes applied to the interview transcripts to eleven.

The researcher applied the codes on the transcript in two formats – applying a hashtag to the comment demonstrating that particular code as well as a system of color-coding for each code. When the researcher identified a portion of the interview in which one of the codes was appropriate, a hashtag was applied to that portion of the interview. For example, when the researcher identified a portion of the interview which related to the interviewee discussing how #sschat sessions compared to more the more traditional form of professional development, a #PD hashtag was applied to that portion of the transcript. This hashtag made it easier for the researcher to find all portions of the interview transcript which pertained to comparisons of traditional professional development by performing a search in the Google Document for “#PR.” Upon conducting this search each portion of the Google Document which contains the “#PR”

hashtag was revealed on the Google Document, making it easier for the researcher to identify individual answers and themes relating the specific topics.

The coded portions of the interview transcripts were then also labeled using color codes. Each of the eleven codes were assigned a specific color. For example, the portions of the interview that contained references to comparisons to traditional professional development were highlighted with the color yellow in the Google Document. This second format of identifying the codes duplicated the codes already applied with the hashtags, as described above in the “#PR” example, but made it easier for the researcher to quickly organize and identify themes in the responses from the interviewees. At the completion of the coding process for all seven interviewees, a master Google Document was created containing the complete transcripts of all seven interviews, including all of the color highlighting depicted each of the eleven codes. By organizing the portions of the transcripts by different colors, the different themes were quickly organized and arranged by color allowing the researcher to compare common answers in reference to specific research questions. This coding procedure allowed the researcher to effectively reference vivo codes, the exact words of the individual interviewed (Creswell, 2008).

The researcher also utilized additional features available in Google Documents to make the coding process more efficient. The researcher used the comments feature in Google Documents to add notes and observations to the document without altering the text of the original transcript. The use of Google Documents also made securing and backing up copies of the transcripts efficient. Since Google Documents are automatically

saved in a cloud format there was always a saved copy of the transcripts in an offsite location secured with a private password. The transcripts were also easily backed up locally using the download feature available in Google Documents allowing the researcher to save a local copy of all material that was secured on an external drive secured by the researcher.

### **Validity and Reliability of the Design**

Validity of a study can also be increased when the researcher is clear in describing any bias that may exist in the research (Creswell, 2009). As a teacher who frequently uses Twitter as a collaboration tool, I was clear and transparent in describing my experiences in the study. I have facilitated professional development at conferences and school districts in the past five years on the use and benefits of using Twitter as a collaboration tool for teachers. As a frequent user of social media and Twitter to collaborate with peers I am also aware of the limitations and difficulties in using this medium. While conducting the analysis of this study I was objective in my approach to both the potential benefits and downfalls of Twitter as a medium to promote online professional development and collaboration. There was also consideration given to procedures in dealing with discrepant cases that could have occurred in the data analysis procedure. I was prepared to ask others to evaluate any discrepant findings with a fresh set of eyes as a technique to help evaluate these findings (Maxwell, 2012) but I did not encounter any discrepant cases in the research of this study

A research study with high reliability implies that the results of the research can be replicated to a similar situation (Merriam, 2002). The very nature of qualitative

research, comprising of many individual decisions and behavior, makes it difficult to always make comparisons to similar situations. This study focused on the use of Twitter as a collaborative tool by teachers in one particular content area. The findings can be applicable to teachers in other content areas who are using Twitter as a collaboration tool.

### **Triangulation**

The validity of this research study was aided by triangulation, a technique in which the researcher ensures and checks the validity of a study by checking multiple sources (Creswell, 2008; Hatch, 2002; Merriam, 2002). In addition to the analysis of #sschat transcripts, a series of individual interviews were conducted with consistent participants in the #sschat sessions. These personal interviews provided additional voice to the patterns of collaboration and engagement analyzed from the #sschat transcripts.

### **Research Question 1**

The primary research question for this study is: How do social studies teachers collaborate using Twitter #edchats, specifically #sschat, as a form of professional development. The transcripts from the ten selected #sschat sessions were the primary source of data analyzed to answer this research question. Interviews conducted with consistent contributors to the #sschat sessions which were analyzed for this study were used to provide additional narrative to support the findings contributed by the transcripts.

### **Volume of Tweets Analyzed**

The ten #sschat sessions which were analyzed for this study contained a total of 2,821 tweets contributed by 483 participants (some of the 290 individuals who are considered participants in this study were active in more than one #sschat session and

each #sschat session was calculated for participants). The May 6, 2013 #sschat session on the topic of assessment generated the least number of tweets, a total of 94. The May 13, 2013 #sschat on the topic of reading across the content area generated the largest number of tweets during any single session with a total of 478 tweets. These two #sschat sessions also contained the fewest and largest numbers of participants of the ten sessions analyzed for this study. The May 6, 2013 #sschat on the topic of assessment had the least number of participants with 36 individuals participating and the May 13, 2014 session on the topic of reading across the content area had the highest number of participants with 66. The ten #sschat sessions used for this study had an average of 282.1 tweets per session and an average of 48.3 participants per #sschat session.

Table 2

*Total Number of Tweets and Participants in Each #sschat Session Analyzed for This Study With the Average Number of Tweets per Participant During Each Session*

#sschat session	Tweets	Participants	Average tweets per participant
Chat 1	275	41	6.7
Chat 2	94	36	2.6
Chat 3	477	66	7.2
Chat 4	331	55	6.0
Chat 5	358	44	8.1
Chat 6	340	58	5.9
Chat 7	270	54	5.0
Chat 8	263	50	5.3
Chat 9	175	34	5.1
Chat 10	238	45	5.3

### **Number of Participants**

The total number of who contributed at least one tweet during any of the ten #sschat chats analyzed is 290. A majority of these individuals, 199 of 290, or 68.6%,

participated in just one of the ten #sschat sessions analyzed. On the other hand, there were also 25 individual Twitter users who participated in at least four of the ten #sschat session analyzed for this study and there were eight individuals who participated in at least six of the ten #sschat sessions used for analysis in this study.

The average number of tweets contributed by each individual participating in the #sschat session ranged from an average of 2.6 tweets per individual in the May 6, 2014 session to a high of 8.1 average tweets per individual in the June 24, 2014 #sschat session. With the exception of the May 6, 2014 #sschat session, the average number of tweets per participating individual exceeded at least five in each of the #sschat session analyzed for this study. This average number of tweets per participating individual typically exceeds five, suggesting that the #sschat sessions are conversational in nature rather than an individual just dropping into the conversation and contributing one lone tweet.

### **Pace of Conversation**

The pace of tweets occurring in a #sschat session is fast. The pace of the conversation is an important consideration because it is one of the factors that can cause a new participant to feel overwhelmed and not as likely to return for additional sessions. The #sschat session with the fewest tweets, the May 6, 2013 session on assessment, still had an average pace of 1.57 tweets per minute throughout the entire chat. The #sschat session the following week on May 13, 2013 on the topic of reading in the content area had an average pace of 7.95 tweets per minute. The average pace for all ten selected #sschats was 4.68 tweets per minute.

Table 3

*Average Tweets per Minute During #sschat Session*

#sschat session	Total tweets	Average tweets per minute
Chat 1	275	4.59
Chat 2	94	1.57
Chat 3	477	7.95
Chat 4	331	5.97
Chat 5	358	5.42
Chat 6	340	5.67
Chat 7	270	4.50
Chat 8	263	4.38
Chat 9	175	2.92
Chat 10	238	3.97

**Role of Moderators**

Each #sschat session has an individual, or two individuals, who serve in the role of moderators. Chat moderators have the role of keeping the chat moving and introducing prompts for questions throughout the chat. At the beginning of a #sschat session there is typically an introduction made by the moderator(s) stating the topic for the evening and a prompt for participating individuals to add a tweet explaining who they are and the answer to a question. For example, during the May 13, 2014 #sschat on the topic of reading in the content area the moderators asked everyone to post a tweet introducing themselves and then adding the most recent book they have read. The moderators typically introduce predetermined questions throughout the chat, typically designated with a tweet that starts with a capital letter "Q". An example of a tweet using a capital letter to designate that it is question #1 in the chat: "Let's get the chat started: Q1 – What is an assessment? What is the purpose? #sschat."

These topics, or questions which guide the conversation, are typically introduced at regular intervals throughout the hour. For example, if the moderators would like to have six questions introduced throughout the chat they would tweet out a new question every ten minutes during the chat. Moderators also serve to help participants who might have a question during the #sschat session.

In analyzing the number of tweets contributed by each individual during a chat it became clear that the moderators were typically the individuals who were contributing the most tweets of any individual in that session. The total number of tweets contributed by the moderators significantly increased the average as calculated for all participants and thus a more accurate depiction of the average number of tweets should be factored without including those of the moderators. The percentage of tweets contributed in a #sschat session by the moderators ranged from 7.9% of the total tweets (June 4, 2013) to 37.1% of the total tweets (October 7, 2013). The average percentage of tweets contributed by the moderators for the ten #sschat sessions analyzed was 15.6%.

### **Devices Used to Access #sschat Sessions**

Twitter users have the ability to access and use Twitter on a variety of devices and different platforms. Twitter can be accessed on desktop computers, laptops, tablets and cell phones. Analysis from the #sschat session transcripts did not provide information on how the participants were accessing Twitter while they participated in #sschat sessions or include additional information concerning their level of comfort using technology or the third party applications they were using to access Twitter during #sschat. The interviews

conducted with the seven consistent participants of #sschat provided additional information on these topics.

All of the individuals interviewed mentioned having access to multiple devices which are capable of accessing Twitter – laptops, cellphones and tablets - but everyone responded that their device of choice for participating in #sschat is their laptop or desktop computer. Interviewee #1 stated the preference for participating on a laptop was primarily due to the ease of using TweetDeck, a Twitter application that helps users organize tweets into columns based on content and hashtags, on a laptop instead of a smaller device such as a cellphone or tablet. Interviewee #2 also cited the ease of use for TweetDeck on a larger device adding, “I have done it on my phone before but a lot less frequently. It is just hard to do a moderated chat on a phone. It is a little harder to keep up with the chat.” Interviewee #3 had similar comments, “I’ve done it on my phone but I don’t like to do it on my phone unless I am stuck somewhere and I can’t get home in time. I’ve done it on my phone but I hate to do it on my phone. (Interviewee #3)

Five of the seven individuals interviewed use a single Twitter account for both personal and academic purposes. When asked to estimate what percentage of their Twitter usage was purely academic in nature the average response from all seven was 82.14% academic use. The two individuals who have separate Twitter accounts for academic and personal use responded with the two lowest percentages – 50% and 75% - when asked what percentage of their tweets were academic in nature. One interviewee commented that there is often a fine line between personal and academic tweets because

many friends are also in education and some of the tweets may seem personal in nature but are distributed in academic channels because of common interests.

### **Communities of Practice and #sschat**

This study examined the use of Twitter and #sschat sessions as professional development through the lens of the communities of practice theory, first introduced in 1991 by cognitive anthropologists Jean Lave and Etienne Wenger (Lave & Wenger, 1991). Three conditions must exist for a community of practice to exist: 1) a common domain of interest, 2) a community with relationships, and 3) a shared common practice (Wenger, 2006). The existence of all three elements of a community of practice would strongly support the belief that #sschat sessions could be considered a form of professional development for teachers (Pugach, 1999).

Lave and Wenger's theory of communities of practice was born in a time period prior to the widespread use of social media and recently there has been some debate on whether Twitter as a medium itself could be considered a community of practice (Hooker, 2011). Etienne Wenger responded to a tweet he received on April 11, 2011 that asked if he considered Twitter in itself to be a community of practice. Wenger responded in a tweet of his own from his personal account, "No, Twitter is not a CoP (community of practice), just a platform for network connections. CoPs (communities of practice) could form there, and that would be interesting" (Wenger, 2011).

This study examined if #sschat sessions on Twitter possess the three crucial elements which must exist for a group to be considered a true community of practice. If the required elements do exist in #sschat sessions it would demonstrate the potential for

Twitter to form specific communities of practice in narrowly defined content areas and an opportunity for content specific collaboration by educators.

### **Community of Practice Element 1—Common and Specific Domain**

The first crucial element that must exist for a group to be considered a community of practice is a common domain of interest (Wenger, 2006). The existence of a common and specific domain must be present for a community of practice to exist. Participants in a #sschat session are distinguishing themselves as a specific domain by the practice of using the #sschat hashtag to differentiate their tweets from those in the general population. The specific and re-occurring time at which the #sschat session takes place, every Monday night between 6 PM and 7 PM EST, also creates a very specific domain in which this group of individuals meet.

### **Community of Practice Element 2—Sense of Community**

A sense of community is the second element in defining a community of practice. Wenger describes this sense of community on his webpage, in pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other. (Wenger, 2006)

A sense of community and personal relationships are consistently present in the interviews conducted with frequent participants of #sschat, some mentioning the terms “family” and “friends” when speaking of other participants. When asked if they felt a sense of personal connection with the other participants in #sschat session all interviewees responded that they do feel a personal connection. A majority of the

participants have been participating in #sschat consistently for over a year, some multiple years since it was created in 2011. Interviewee #1, currently a retired teacher but still an active participant in #sschat, feels strongly about the benefits of making personal connections on Twitter:

It really is a whole new world now because of social media. Social media has really made us all family now because we are there for you. You may never meet a lot of the people in person but you are connected with them. (Interviewee #1)

Interviewee #5 described the relationship that has evolved over the years from participating in #sschat, “I would say over the years the people that I have been communicating with on Twitter are people that I would consider friends.” Interviewee #3 expressed confidence in asking any member of the community for help:

I feel very comfortable sending a direct message to ask for help with something. I feel as if any of them would respond and in they have in the past. I have reached out to them and I’ve also had some of them reach out to me and I’ve sent them material. I really do feel like it is a community. (Interviewee #3)

A consistently reoccurring theme in participant interviews was the opportunity for the online participants in #sschat to meet in person at conferences and events. The most frequently mentioned opportunity for face-to-face meetings was the National Council for the Social Studies (NCSS) conference, widely recognized as the national conference for social studies teachers. Five of the seven participants interviewed specifically mentioned meeting at informal gatherings at the NCSS conference, typically called a “tweet up” since the participants generally know each other first in an online Twitter environment.

Several of the interviewees commented that seeing other #sschat participants in a face to face setting is similar to meeting someone you had known for a long time. Interviewee #3 described several face to face meetings which have taken place for #sschat participants:

We did a tweet up at the national social studies conference (NCSS) when it was in Washington DC a couple of years ago. Everyone that attended that conference who is on #sschat got together. At the edcamp in Philadelphia a lot of us came to a get together as well. It happened again at the International Society for Technology in Education (ISTE) conference. I've had at least three opportunities to meet with a group of people that I already communicated with online.

(Interviewee #3)

### **Community of Practice Element #3 – Shared Sense of Practice**

The third element present in active communities of practice is a shared sense of practice. Wenger states that members of the community of practice share “a repertoire of resources: experiences, stories and tools” and adds that it takes time and sustained interaction to accomplish (Wenger, 2006). One example of the prevalent sharing of resources and tools from the transcripts of the #sschat sessions analyzed sessions for this study is the volume of web links shared within the tweets. Of the 2,821 total tweets analyzed, 544 tweets included a web link to a resource.

Interviewed participants shared stories illustrating how discussions have taken place on #sschat that have had an impact on their practice as an educator. Interviewee #2 described several specific examples of best practices resulting from participation in #sschat, “There have been a number of tech tools, things like digital timelines that I came

across for the first time with #sschat. I have also used links to good videos and resources.” Interviewee #4 recalled a specific lesson which originated on #sschat, “We did this one #sschat session about simulations and people were sharing how to use simulations in class. Someone tweeted a link about a simulation on World War I. I was able to adapt it to my class and use it a couple of weeks later.”

Interviewee #7 provided an example of how #sschat helped a new teacher discover an engaging way to help her students become excited about a specific lesson:

When I was teaching 6th grade the first time we were studying ancient civilizations. Being a new teacher to that curriculum, as well as having some students who were very uninterested in school, I found #sschat members who gave me ideas on how to incorporate social media. They asked me to think about what it would have looked like if social media had existed in the ancient world - incorporating Facebook pages or Twitter chats with some of the ancient Greek philosophers. Using the Spartan warriors was cool. I also gained ideas in terms of videos or flipped lessons that might engage my students who were reluctant learners. All of that came from some of the earliest #sschat sessions that I participated in. (Interviewee #7)

## **Research Question 2**

The second research question in this study asked how participation in an edchat such as #sschat compares to more traditional forms of professional development? Current forms of professional – typically one time workshops generalized to be appeal to large numbers of teachers with little opportunity to interact or collaborate - have not positively

impacted student performance (Darling-Hammond et al., 2009) and have been described as inadequate (Borko, 2004). One of the most noticeable differences in #sschat sessions compared to more traditional forms of professional development is the amount of interaction taking place between individuals. More traditional forms of professional development – a single speaker at a conference or a lecture provided by an individual to a faculty staff – is largely a one-sided conversation with an expert sharing their knowledge. The #sschat sessions contained more conversation and interaction through extensive use of questions, replies and shared links as analyzed in the transcripts of the ten selected #sschats.

The #sschat session transcripts were analyzed for elements of interaction and dialogue by identifying three elements which demonstrate interaction taking place in tweets – replies, questions and the sharing of web links as a resource. Any tweet including a reply to another Twitter user – using the @ sign in front of another user's Twitter name – was coded as a reply. Tweets including a question to another user were coded as a question. Tweets that included a question but were clearly not asked expecting a reply, sarcasm for example, were not coded as a question. Tweets that included a web link were coded as a tweet sharing a resource. It is important to note that a single tweet could be coded with multiple codes. For example, a single tweet could be a reply to a specific Twitter user and include a web link to an online resource.

The most commonly occurring type of interactive tweet in the #sschat sessions were those which included a reply. Of the 2,821 total tweets analyzed for this study, an average of 54.6% contained a reply. The percentages of tweets in a single #sschat session

ranged from a minimum of 42.1% in #sschat #2 to a maximum percentage of 61.8% in #sschat #5. Every chat except for #sschat #2 contained at least 50% of tweets that included a reply. The large number of replies depicts a robust conversation with more interaction than commonly experienced when listening to a single speaker in a more traditional professional development session.

Table 4

*Number of Tweets That Include a Reply in Each #sschat Session*

Chat	Number of tweets with a reply	Percentage of tweets that are replies
Chat 1	162	58.9%
Chat 2	40	42.1%
Chat 3	276	57.9%
Chat 4	166	50.2%
Chat 5	201	61.8%
Chat 6	186	54.7%
Chat 7	136	50.3%
Chat 8	143	54.4%
Chat 9	101	57.7%
Chat 10	129	54.2%

Almost one-fifth of all tweets included a web link as a shared resource. An average of 19.4% of total tweets analyzed contained a web link to a resource. The session with the smallest percentage of web links shared was #sschat #3 with only 8.4%. The #sschat session with the largest percentage of shared links was #sschat #10 with 33.2% of tweets including a link. These statistics show a willingness for the #sschat community to share resources and point participants to useful locations on the web.

Table 5

*Number of Tweets That Include a Link in Each #sschat Session*

Chat	Number of tweets with a link	Percentage of tweets containing a link
Chat 1	51	18.5%
Chat 2	14	14.9%
Chat 3	40	8.4%
Chat 4	83	25.1%
Chat 5	57	15.9%
Chat 6	44	12.9%
Chat 7	87	32.2%
Chat 8	57	21.7%
Chat 9	32	18.3%
Chat 10	79	33.2%

Questions were also common during the analyzed #sschat sessions. An analysis of all tweets showed an average of 12.5% of tweet containing a question to either a specific Twitter user or the #sschat community as a whole. Although not an overwhelming percentage of the total volume of tweets, it is still a considerable amount of the conversation devoted specifically to asking a question. The lowest percentage of tweets in a specific #sschat was chat #5 with 9.8% of tweets containing a question. The chat with the largest percentage of questions was chat #8 with 17.1% of tweets including a question.

Table 6

*Number of Tweets That Include a Question in Each #sschat Session*

Chat	Number of questions	Percentage of tweets containing a question
Chat 1	32	11.6%
Chat 2	12	12.6%
Chat 3	70	14.7%
Chat 4	36	10.9%
Chat 5	35	9.8%
Chat 6	37	10.9%
Chat 7	34	12.6%
Chat 8	45	17.1%
Chat 9	22	12.6%
Chat 10	30	12.3%

Most traditional professional development has the limitation of having the expert available for participants in a face-to-face setting for a short period of time with limited opportunity to interact with the expert at a later date. If an individual is unable to physically attend the professional development session there is no opportunity to capture the material presented in the same format. One potential benefit for educators wishing to collaborate using #sschat is the ability to participate live synchronously as the #sschat is taking place on Monday evenings or viewing the transcript from previous #sschat sessions online asynchronously using the online archives. The general consensus from the participants interviewed was that participating live in the #sschat is always preferred but not always possible due to other obligations. For those not able to participate live,

viewing the transcripts online at the #sschat site is the second best option. Interviewee #4 mentioned a current obligation that has made participating via the archive a necessity; “I am in graduate school and currently have classes on Monday nights so recently I have participated (in #sschat) by looking at the archives.” Interviewee #6 also replied that viewing the archives is a secondary option but does allow participation when not able to do so live, “I do a mix of both, it depends on my availability. I try to participate live as much as I can but if I don’t have the time I will use the archives.” Interviewee #3 noted that if the live #sschat session has to be missed, a point is made to check the archives the next day:

I am able to participate live probably three weeks each month but life gets in the way sometimes, you get stuck in traffic or have to work late. I do make it a point if I miss Monday night to go to the site the next day and look through the archives. Sometimes I will check the archives that night if I get home after the live chat ends. I love the fact that we do have the archives because sometimes you learn something that you are not going to use this week, or even this month, so you want a way to go back and refer to it. I do prefer the live chat because I do feel that it is a conversation. If you participate live you can respond to each other and when you use the archives you don’t get a chance to bounce ideas off each other (Interviewee #3). A majority of the interviewees added that they use the #sschat archives most often to search for a specific topic at a later date.

Interviewee #2 stated, “I have used the archives to find something that I wanted to go back and find again after following live but I don’t think I have ever just

missed a chat and gone to the archives.” Interviewee #1 also uses the archives only to look for specific information, “I have occasionally looked at the archives later for specific information but I generally don’t do that, I generally only participate live.”

The interviews conducted with consistent participants in #sschat sessions revealed additional perspectives on how participants compare the professional development they receive while being active on #sschat with more traditional forms of professional development. Themes emerged demonstrating that participants felt #sschat was a more interactive environment, they received more social studies specific content and had more choice pertaining to the content on #sschat in comparison to what they experienced in traditional professional development offered by their school districts.

### **A More Interactive Conversation**

When asked to compare the professional development they received as a result of participating in #sschat with that received by participating in more traditional forms of professional development – featured speakers for faculty professional development sessions and attending conference sessions – interviewees commonly responded that they viewed #sschat session as more interactive and more conversational. Four of the seven interviewees specifically mentioned the more interactive atmosphere of multiple conversations occurring in an #sschat session and the ability to ask a specific question during the session in hopes of having it answered directly by someone with experience relating to that specific lesson or practice.

Many forms of traditional professional development are typically more of a one-sided conversation between an expert and a room of teachers. Interviewee #6 described the benefit experienced from being part of a discussion in #sschat as a comparison:

I find Twitter to be more engaging than regular professional development where you might be sitting in a room and people are talking to you. In #sschat you are a participant, you are part of a valuable discussion and you have valuable comments. I find that I'm much more engaged when I'm on Twitter than in regular professional development in general. (Interviewee #6) Several of the interviewees specifically noted the ability in #sschat sessions to engage in conversations, a quality they mentioned rarely occurs in the more traditional forms of professional development they experience. This conversational atmosphere frees the participants to ask specific questions and connect with experts who can help. Interviewee #1 was candid in a comparison of the two formats of professional development in regard to the ability to engage in a conversation: "You can't ask in a traditional professional development about certain points. They basically shut you down. Here (in #sschats) you have constant discussion - you can ask questions, that is the difference." Interviewee #7 commented that the conversation has even carried over beyond the live #sschat session:

Twitter is interactive. You get what you need. You can ask questions immediately and if you don't necessarily get an answer that night, I've had people who have seen things that I've posted who have contacted me later with comments like

“hey, I found this resource that you might be interested in” or “did you do anything with this activity, how did it work out?” I can’t say that I’ve ever had that same experience when I have attended a conference or listened to a district speaker. It has never been that engaging. (Interviewee #7)

### **Social Studies-Specific Content**

There has been a lack of emphasis placed on social studies at both the elementary level (Stern & Stern, 2011) and secondary level (Lautzenheiser et al., 2011) following the introduction of No Child Left Behind legislation in 2001 since social studies is often not assessed at the state level for the means of high stakes testing and evaluating school districts. This de-emphasis on social studies has also resulted in less social studies specific professional development offered to teachers. Interviewees commented that #sschat provide an opportunity to receive professional development specifically focused on their own content, a need which is not being met in the professional opportunities being offered in their local school districts.

Interviewee #2, currently teaching in higher education, commented on the lack of social studies specific professional development: “when I was teaching, there wasn’t a lot of social studies specific professional development; it was just every once in a while. I definitely felt that (traditional) professional development was very random.” The absence of social studies specific professional development at the elementary level was mentioned by interviewee #7, “I don’t necessarily find that (people at the district level providing guidance in social studies) being the case in my elementary school setting because there is so much demand for every subject, social studies just kind of gets pushed to the side.”

The lack of social studies professional developed at the high school level was included in a response from interviewee #6:

I get a lot more social studies content on Twitter than I do from the regular professional development offered in my district. There is a lot more social studies content online compared to the professional development offered in the district.

(Interviewee #6)

### **More Choices and Control in Their Professional Development**

Educators interviewed for this study believe that participating in #sschat sessions provided them more personal choice and freedom in directing their own professional development. Participants have a choice in #sschat in terms of how they participate, as described by interviewee #2:

I just think it is a lot more hit and miss (traditional professional development) than #sschat can be just because you have so much more freedom in choosing how to engage, who you engage with and how to take resources with you than you do in a traditional workshop. When you are in a workshop that's not working you are kind of stuck and I never really feel that way during #sschat. (Interviewee #2)

The ability to select and choose the topics being presented was an important consideration for several of the educators interviewed when asked to compare traditional professional development to #sschats, including interviewee #5:

I think sometimes conference type of workshops, if it is in an area that I'm choosing to be at and I have some control over which sessions I am going to, can

be very useful. I would say that the Twitter chats are far more useful just for the mere fact that I get to choose how I participate and with whom I choose to participate. Choice has a lot to do with why I enjoy edchats so much.

(Interviewee #5)

### **Research Question 3**

The third research question explored the ease of entry for an individual wishing to participate: How easy is it for new participants to begin collaborating with peers on an edchat such as #sschat? The study examined the transcripts from the selected #sschats to determine the level of technological expertise required to participate and the level of support provided by active members in #sschat sessions to help anyone with questions.

The pace of tweets being contributed to a #sschat session can be frantic and potentially daunting for a new user. The average pace for the ten #sschat sessions analyzed was 4.68 new tweets being added to the conversation per minute for the duration of the entire hour. The fastest paced #sschat of the ten analyzed was chat #3 with a new tweet added on average every 7.55 seconds during the hour. A conversation this fast paced in an online environment may require a minimum comfort level with technology in order to participate and collaborate.

The transcripts of the #sschats do reveal occasional tweets in which a participant asks a question pertaining to the norms and procedures of the #sschat format. These tweets are generally answered with a warm and supportive tone from active members who participate in #sschat on a regular basis. For example, in chat #3 an apparently new participant was having trouble keeping up with the pace of the chats and asked “What is

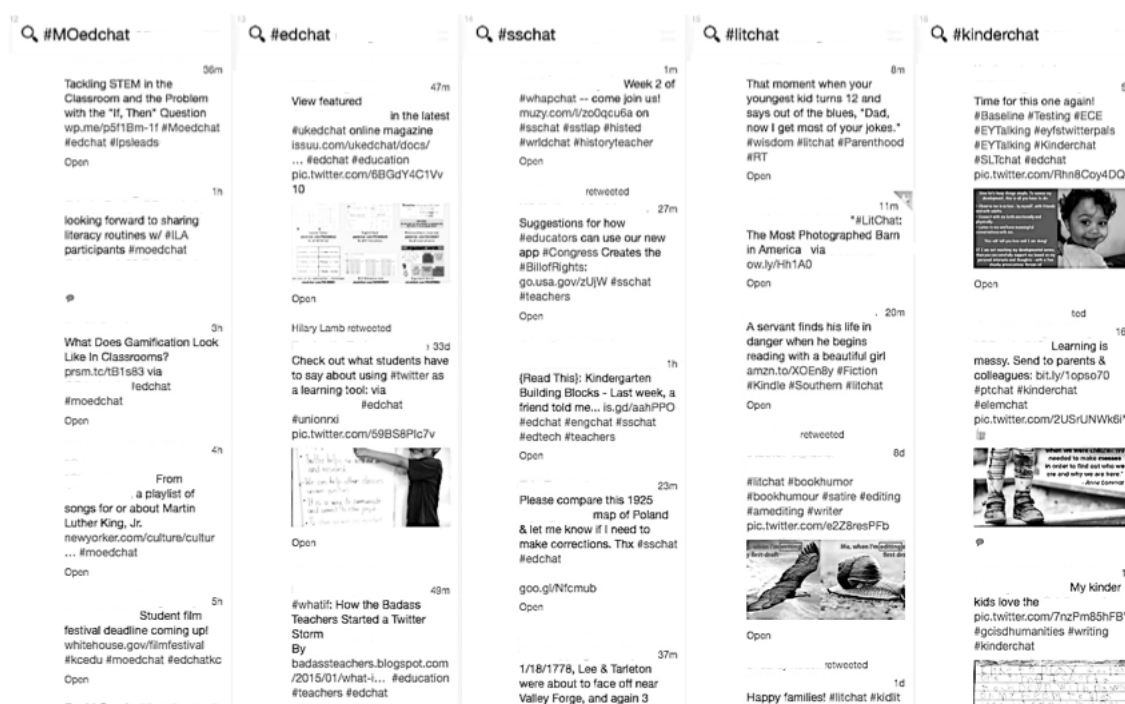
the best way to follow multiple chats at once?” Seconds later another #sschat participant responded by including the user name of the person asking the question and writing “I use TweetDeck” which was quickly followed by a different user volunteering an another possible solution with a tweet stating “Check out Hootsuite. You can watch chats side by side.”

The need to have a competency in using a third party application in order to successfully manage and participate in a #sschat session was prevalent in interviews conducted with the consistent contributors. As a new tweet is added to the conversation on average roughly every 12 seconds during the ten #sschat sessions analyzed, keeping track of the conversation can become difficult without using a third party application which works with Twitter to display tweets in a more organized manner instead of as a single column of tweets as seen in the basic Twitter application. Six of the seven individuals interviewed mentioned using an application named TweetDeck to help manage their participation in #sschat. The additional interviewee uses standard Twitter to participate in the #sschat sessions.

TweetDeck allows a Twitter user to create multiple columns on a single screen. Each column can be set to filter, or capture, a specific hashtag. By creating a column set to filter and display all tweets using the #sschat hashtag a user can more easily follow the conversation and participate in replying to and answering questions during the #sschat session. Interviewee #1 commented, “I love TweetDeck!” and interviewee #7 mentioned being frustrated on managing the #sschat sessions before learning of TweetDeck:

Typically I use TweetDeck. The first couple of times I did #sschats I had no idea there was even an app that I would be interested in using. I was lost in the opening and clicking of all these links and couldn't keep them straight. I think it was Shawn McCusker who said 'use TweetDeck' and I started using it.

(Interviewee #7)



*Figure 5. Screenshot of TweetDeck showing multiple columns displaying different hashtags simultaneously. Captured by Eric Langhorst, January 17, 2015.*

All of the participants interviewed for this study are frequent and consistent contributors to #sschat and thus the study wanted to determine if they have a high level of comfort in using technology and if a lack of comfort using technology may be a hindrance to those beginning to participate. Interviewees were asked to rate their comfort

level in relation to using technology on a scale of 1 to 10, a rating of 10 being very comfortable using technology. The average score the interviewees gave themselves was 8.57 with the lowest individual score being a 7. These scores indicate that these frequent participants have a high degree of comfort in using technology and technological literacy in general. Although it does not assume that a high level of comfort in using technology is a requirement to participate in #sschats, it does demonstrate that having a comfort level using technology is a commonly shared perception of frequent participants.

Interview participants were also asked to recall their first introduction to participating in an edchat session. Each of the seven interviewees had very similar experiences learning the norms and procedures for participating by watching a session and quickly learning the manner in which hashtags were used to include tweets in the chat. Several of the interviewees used the term “hands-on” approach when asked how they first learned the manner in which to participate as well as using the term “self-taught” to describe their discovery of the norms and procedures. None of the interviewees described learning how to participate by means of any formal training or professional development. Interviewee #7 recalled asking participants in #sschat questions as a newcomer:

When I had a question a lot of the original people that I was in #sschat with would answer questions. They never made you feel like an outsider or an idiot if you did something that did not follow Twitter etiquette or you posted something without hashtags. It was a great group to learn from and I would say that out of all the

different chats that I participate in, the ones who walked you through it the best were the #sschat people. (Interviewee #7)

### **Conclusion**

The primary research question for this study was to explore the ways in which social studies teachers are collaborating online using the social media application Twitter with emphasis on a specific type of weekly chat devoted to social studies teachers known as “#sschat”. The results of the study were examined through the lens of the community of practice theory (Wenger, 2006). The findings from analysis of the #sschat sessions describe an active and highly collaborative core of participants who do meet the three basic requirements for a group to be categorized as a community of practice: a shared domain of interest, a community which meets in reoccurring opportunities to share knowledge and a collection of individuals who all share practicing the same craft (Wenger, 1991).

The conversations taking place during the #sschat session are fast paced with a majority of the tweets being either replies or questions to other participants. Participants are also willing to share resources and ideas within tweets using web links. Many of the participants are consistent contributors that help build a sense of community. Face to face events, such as regional and national conferences, are opportunities for #sschat participants to meet in person.

The second research question for this study compared the differences in professional development experienced by teachers in traditional professional development such as conference sessions and lectures to that experienced through

participation in #sscaht sessions. The #sschat sessions provided a more interactive experience for participants and were considered more of a two sided conversation compared to the traditional professional development experience which was typically dominated by the presenter of information. The #sschat sessions were also more often specifically tailored to social studies content and provided more choice for the participant.

The final research question examined the ease of entry for an individual just starting to participate in a #sschat session. The fast pace of conversation in a #sschat session could prove intimidating to a new user. It appears most users learn the norms and procedures for participating in #sschat sessions relatively quickly by observation and the #sschat community is also willing to help new users who ask questions. A majority of the #sschat participants interviewed for the study did describe themselves as highly comfortable in using technology and this could impact their relative ease in initially participating.

The findings from this case study using data collected from tweet transcripts of #sschat sessions and interviews with active participants in #sschat sessions have produced the following conclusions:

1. Participation in #sschat sessions is highly collaborative and interactive.
2. A strong sense of community exists among #sschat participants.
3. Compared to traditional professional development formats, #sschat sessions are more interactive, provide more specific social studies content and offer the participant more choice.

4. Ease of initial participation appears to be easy but a more formal introduction to the norms and procedures for participation may help individuals who are not as comfortable with technology.

The data collected from this study describes #sschat sessions as an environment with great potential for social studies teachers wishing to collaborate with peers and master their craft of teaching. Social studies teachers are seeking content specific professional development (Darling-Hammond et al., 2009) and #sschat meets this need. Since participating in #sschat is free it also provides an economic solution to the lack of funding available today for professional development (Franck, 2012). Although there appear to be many advantages to educators participating in #sschat sessions on Twitter, there is still a resistance from school districts in fully embracing social media for widespread faculty use (Forte et al., 2012; MMS Education, 2012). A formal and well organized introduction to the procedures and norms for participation using Twitter and #sschat could help social studies teachers who want to participate but are not aware of how to get started. The following section will outline and describe the project created as a result of this study and an additional review of the literature that supports the need for a professional development plan.

### Section 3: The Project

#### **Introduction**

This study explored how social studies teachers are using Twitter, specifically the social studies edchat known as #sschat, to collaborate with other teachers. The study drew comparisons between the professional development social studies teachers receive as participants in #sschat and the more traditional forms of professional development such as conference sessions and lectures that are typically provided to faculty members. I collected data primarily from the transcripts of tweets contained in 10 selected #sschat sessions, with supporting data provided by individual interviews with seven consistent participants of #sschat sessions.

#### **Description and Goals**

The project that resulted from this study is a professional development program (Appendix A) based upon the findings and results of the qualitative data collected during the study. The professional development program is a self-directed learning style approach to helping teachers who are not familiar with Twitter learn the basics of this social media application and eventually have the skills required to effectively participate in an #edchat session such as #sschat.

The professional development program developed as a result of this study is a 30-day process in which an individual visits the website [www.twitterforteachers.com](http://www.twitterforteachers.com) each day to learn a new aspect of how to use Twitter as an educator. Each day, the individual clicks on a link directing him or her to the correct day—"Day 1" or "Day 15," for example. Every day contains a different fundamental skill or introductory concept

required to fully use Twitter as an educator. The organization of each day is consistent in terms of the resources and goal required for that day. First, the learner watches a short video that is embedded on the webpage to introduce the concept or skill that is featured for that particular day. The video is typically less than 5 minutes in length. After watching the video, the learner accesses any supporting resources on the webpage that will help further explain the objective for the day. These resources may include links to articles on the topic of the day and videos that further explain the concept. Finally, a task is provided for the individual to accomplish that day. The objectives for the 30-day program begin with very simple tasks, such as understanding terminology associated with Twitter and creating a Twitter account, and then advance to more complex tasks such as participating in a #edchat and using a third-party application such as TweetDeck to view one's Twitter account.

The goal of the project is to provide an economical solution to the rising expense of professional development, provide a means to offer teachers professional development that is content specific, and help teachers participate in a collaborative community of peers willing to provide support and expertise in the field. There is no fee required to access the professional development program, and it is accessible at any time to anyone with Internet access. The site was created with the intent to have it available online for the foreseeable future.

The conclusions drawn from this study illustrate that social studies teachers who participate in #sschat sessions on Twitter find numerous benefits in collaborating with their peers as a part of this community. A strong sense of community exists among

participants, and the conversational qualities of the chats provide social studies-specific content. Participants also responded that they felt as if they had more choice in determining professional development that best meets their needs. The professional development program created as a result of this study promotes social change by providing collaboration and quality professional development to anyone regardless of physical location or economic status, as there is no fee required to participate.

### **Rationale**

The project selected for this project study is a professional development program using a self-directed learning approach. The professional development program is specifically tailored to fit the needs of social studies teachers as outlined by the findings of the research study. The research findings demonstrate the many positive benefits for teachers participating in the #sschat sessions, in addition to illustrating the relatively small total number of social studies teachers who could potentially be participating in these opportunities. The project is designed to help teachers learn the basics of Twitter from the perspective of a professional educator and eventually enable participation in #sschat sessions. Flexibility is an important element of this program. Any individual, or group, at any school or district has the potential to participate in the program.

### **Review of the Literature**

Section 1 contained a literature review focusing on the need for more collaboration among social studies teachers and a lack of funding available for social studies-specific professional development. The initial literature review revealed a desire for additional informal learning opportunities by social studies teachers and more

opportunities to collaborate with fellow teachers in the same content area. This section contains a literature review from 2005 through 2014 on the topics of self-directed learning and professional development incorporating Twitter and #edchats. The literature review included in this section, Section 3, contains a description of the characteristics of self-directed learning and existing best practices for teachers using Twitter for collaborative and educational purposes.

The literature review was conducted until saturation was achieved using a variety of online databases including ERIC, Education Research Complete, SAGE Premier, ED/IT Digital Library, and Google Scholar. Search terms were used individually and in combinations, including Booleans, to locate appropriate articles and research. Terms used in the search process included *professional development*, *Twitter*, *social media*, *self-directed learning*, *teacher*, *technology*, *social studies*, *collaboration*, *informal learning*, and *andragogy*.

### **Self-Directed Learning**

While effective professional development has been shown to help improve student achievement in the classroom (Borko, 2004), research has also found that truly effective professional development is not the norm for educators in the United States (Hawley, 2006). A less formalized approach to professional development may help to invigorate educators and provide better long-term results for increased student achievement.

Malcolm Knowles began popularizing the term *andragogy* in 1968 among mainstream educators in the United States as a means to describe the differences that

exist in the learning adults experience compared to the learning that children experience (Knowles, 1968). Knowles proposed that the fundamental way in which adults learn is different from that of school-age students in terms of self-motivation, a desire to understand the reason why the instruction is necessary, and an increase in informal learning experiences. Knowles (1950) made the observation that many learning experiences for adults occur in a “friendly and informal climate” (p. 33).

In 1975, Knowles expanded his research on the topic of andragogy with the introduction of the theory of self-directed learning, which he described as

a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating their learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (p. 25)

Experiencing professional development in a self-direct learning environment provides a variety of benefits to educators learning new content. Self-directed learning typically focuses more on content-specific material and allows the learner to apply the newly acquired knowledge to real-world problems (Bolhuis, 1996). The content of a self-directed learning program can be customized for an individual in a manner that is difficult to replicate in a traditional professional development experience (Ferriter & Provenzano, 2013).

Self-motivation of the learner is an important consideration in self-directed learning (Knowles, 1980). The learner in a self-directed learning experience must have

the motivation to begin and then have the volition to maintain progress until the goal is accomplished (Corno, 1992; Garrison, 1997). The self-directed learning approach places the ownership of the learning upon the learner. Educational consultant Dean Shareski wrote of this shift in the ownership of learning for educators in a 2013 blog post: “If we want students to take ownership of their learning, shouldn’t we want the same for teachers?” (p. 1).

The self-directed learning approach may depend largely on an individual learner’s motivation, but the learning does not take place in isolation. Self-directed learners often collaborate with peers during the process (Guthrie, Alao, & Rinehart, 1997). The support in a self-directed learning environment is a collaborative effort. Bud Hunt, an instructional technology coordinator, wrote of this collaborative nature of self-directed learning occurring in his own school district in a 2013 blog post, “We have learned that prescriptive learning isn’t learning that lasts, so we try to build support structures where our teachers can struggle together to better understand the technology that surrounds us” (p. 1).

Knowles’ principles of andragogy and self-directed learning are very applicable to educators today who are learning new approaches to incorporating technology in their instruction. Research has shown that professional development may be more effective when self-initiated by the learner while using online resources to manage a personal learning network (Maloney & Konza, 2011). In 1984, Knowles published a list of four principles describing how self-directed learning can be applied to the training of personal

computers. These principles can be transferred to the challenges facing many teachers today who are learning new ways to incorporate technology in their teaching:

1. There is a need to explain the reasons why specific things are being taught.
2. Instructions should be task oriented instead of memorization – learning activities should be in the context of common tasks to be performed by the others.
3. Instruction should take into account the wide range of different backgrounds of learners; learning materials and activities should allow for different levels/types of previous experience with computers.
4. Since adults are self-directed, instruction should allow learners to discover things and knowledge for themselves without depending on people to provide all the guidance (Knowles, 1984).

### **Twitter as Professional Development**

The influence of Twitter in education is significant. In 2014 it was estimated that 4.2 million of the tweets posted each day are specifically education related (K. Stevens, 2014). The 2013 Horizon Report (Johnson et al., 2013) stated “social media has now found significant traction in almost every education sector” (p. 7). Teachers tend to use Twitter as a venue for sharing more often the average Twitter user (Forte et al., 2012). The literature review contained in Section 1 described the growth of Twitter in education. The literature review in this section, Section 3, will focus on the manner in which Twitter is being used as a means of professional development in the K-12 environment.

Research has shown that effective professional development can positively impact student performance and teacher practices (Borko, 2004) but according to a 2011 article on effective professional development (Kabilan et al., 2011) stated that the professional development currently offered to most teachers in the United States has “failed in delivering meaningful experiences” (p. 95). Conventional professional development is too often a one time event with little or no follow up for teachers in the future (Jaquith, Mindich, Wei, & Darling-Hammond, 2011). Online professional development has proven to be a welcome option for professional development, offering increased flexibility and personalization for teachers (Vrasidas & Zembylas, 2004). Instead of being a one time event, participation on Twitter can help a teacher join a community of practice consisting of teachers with a common subject area and support sustained and significant teacher learning (Wesely, 2013).

The most common use of Twitter for teachers is professional development, mentioned more often in surveys than using it as tool to use in class with students or communicating with parents and community members (Carpenter & Krutka, 2014b). Surveys have shown that teachers who engage on Twitter find it superior to traditional forms of professional development (Carpenter & Krutka, 2014b). Teachers who collaborate while participating in Twitter conversations claim the professional development they receive is transformative and has resulted in improved classroom practice (Visser, Evering, & Barrett, 2014).

Teachers enjoy the flexibility and personalization that professional development on Twitter provides. Because an individual can decide which hashtags to follow on

Twitter, and which edchats to participate in, the professional development can have a high level of personalization (Carpenter & Krutka, 2014b). The informal nature of Twitter and its accessibility at any time of day from anywhere (Holmes et al., 2013) allows teachers to embed it in their daily routine. Once Twitter becomes a regular daily practice it has proven to transform practice (Beach, 2012; Bickmore, 2011).

Teachers collaborating and sharing on Twitter form deep personal connections with their peers in this space. Professional development occurring on Twitter has been described as a participatory culture which is supportive of members and fosters meaningful interpersonal relationships (Visser et al., 2014). A considerable percentage of tweets occurring in the education space appear to be very socially supportive (Holmes et al., 2013). The conversations teachers participate in on Twitter have been shown to contain enhanced communication, collaboration and engagement (Lu, 2011). Teachers reported that participating on Twitter with fellow educators has helped them feel less isolated (Visser et al., 2014). Participation on Twitter has also helped ease the feeling of isolation experienced with the student teaching experience (Wright, 2010).

Organized, synchronous chats that take place on Twitter at regularly scheduled times and are identified with uniquely designated hashtags. These chats, often referred to as #edchats, are popular environments for educators to discuss a specific topic and have interactions with specific individuals (Carpenter & Krutka, 2014a). The popularity of Twitter seems to ensure that there will continue to be a large number of teachers on this medium in which to participate in discussions and #edchats (Holmes et al., 2013).

### **Challenges to Twitter in Education**

Although the benefits of using social media and Twitter in educational settings are gaining traction in academia, there are still barriers that have prevented some educators and school districts from embracing this medium. There is a reluctance for some teachers to bring social media into their classroom environment (Chamberlin & Lehmann, 2011; Fewkes & McCabe, 2012). A 2013 survey of teachers in higher education found many are still hesitant to inject social media into their classes primarily due to concerns over privacy and academic integrity (Seamean & Tinti-Kane, 2013).

School districts are also concerned that social media has the potential to create inappropriate interactions among teachers and students (Barrett, Casey, Visser, & Headley, 2012; Flaherty, 2013). It is not uncommon for school districts to restrict access to social media within a school provided network and during school hours for both teachers and students to avoid potential problems with inappropriate interactions (Joshua Dunn & Derthick, 2013). An additional concern, especially for K-12 schools, is the potential of students becoming victims of cyberbullying through the use of social media (Hinduja & Patchin, 2009).

An existing barrier specially related to Twitter's acceptance as a form of professional development is the hesitation from administrators to formally recognize participation on social networks for credit associated with certificate renewal or certification (Visser et al., 2014). The informal nature of participating on these social media spaces may contribute to the lack of formal recognition for credit among school districts (Davis, 2011).

A final potential barrier to the broad implementation of Twitter in educational settings is the individual's personal comfort in using technology. Existing research on educators who use Twitter has shown that they see themselves as more technologically literate than the general public (Visser et al., 2014). The more frequently an individual uses Twitter, the more comfortable the individual is with the technology (Visser et al., 2014). More research is needed to determine if the correlation between Twitter use and personal perception of technology literacy is consistent.

### **Summary of Literature Review**

The information collected in this literature review includes the topics of self-directed learning, current uses of Twitter as professional development and existing barriers to implementing Twitter in education has significant implications on this study. Self-directed learning is an informal approach to andragogy which places more responsibility upon the learner and offers more choices in determining the type of professional development in which the learner will engage (Knowles, 1984). Self-directed learning, when combined with current available technologies, provides an alternative to existing professional development (Hawley, 2006) that is currently failing to improve classroom instruction for teachers (Ferriter & Provenzano, 2013). Organized and regularly scheduled chats occurring on Twitter, known as #edchats, are popular environments in which educators are collaborating with peers on content specific topics (Carpenter & Krutka, 2014b). School districts are still hesitant to embrace social media for both teachers and students, primarily due to privacy and safety concerns (Barrett et al., 2012; Seamean & Tinti-Kane, 2013). A more structured professional development

approach could help legitimize the use of social media among teachers and help educators who feel they are technological challenged and unaware of the tools and established norms for participating in Twitter conversations (Visser et al., 2014).

### **Potential Resources and Existing Supports**

The project created to accompany this research study is a 30-day professional development program intended to be experienced as a self-directed learning module. All of the materials required to complete this professional development module are available online at one website - [www.twitterforteachers.com](http://www.twitterforteachers.com). The professional development program is self-directed and can be accessed by anyone on the Internet. Individual school buildings, school districts or organizations could require individuals to participate in the program to earn credit but it is not required. The only resource that an individual would need to complete the professional development module is access to the Internet.

### **Potential Barriers**

Assuming that an individual has access to the Internet, a potential barrier to implementation would be the self-motivation of the individual in regards to participating in the professional development program. The program asks that the individual visit the website once a day, watch a video describing the topic for that particular day, review the resources provided and then complete a task for the day. Unless there is an external motivation, such as a mandate from the school district to complete the program, the success of the professional development program will rely exclusively on the self-motivation of the individual learner. Available time may also prove to be a potential barrier. The individual participating in the program may find that the daily time

commitment required for successful completion of the program is not possible with their current schedule. A final potential barrier to implementation may be restricted access to Twitter within an individual's school or district. A considerable number of school districts in the United States do not allow Twitter to be accessed on Internet provided within their school district (Flaherty, 2013; Joshua Dunn & Derthick, 2013). Not having access to complete the program either partially or entirely on the school Internet provider could limit the time available for an individual to complete the program.

### **Proposal for Implementation and Timetable**

The professional development program, the 30-Day Twitter Challenge, is available for anyone to access online anytime after February 2015 at [www.twitterforteachers.com](http://www.twitterforteachers.com). The website was created by the researcher and is maintained by the researcher. The project timeline is listed below.

1. After analysis of the findings from this research study, a need was identified to create a professional development program to help teachers learn the basics of using Twitter in an educational setting. The program is designed to use a self-directed learning approach to allow teachers to progress through the program when convenient in their daily schedule. (December, 2014)
2. Topics are selected for each of the 30 days of the program, teaching how educators can use Twitter in a sequential manner and building upon a foundation. (January, 2015)
3. The web domain [www.twitterforteachers.com](http://www.twitterforteachers.com) is secured and purchased. (January, 2015)

4. The website to host the 30-Day Twitter Challenge is created using Google Sites, a free web hosting application. (January, 2015)
5. Content is created for each day of the 30-day program including web links to articles on pertinent topics, videos relating to the topic of the day and a task for the learner to perform each day. (February, 2015)
6. Videos are recorded to introduce each day's activity and task. These videos are generally less than five minutes in length. The videos are edited, uploaded to YouTube and embedded on the website. (February, 2015)
7. A formative evaluation in the format of a survey is created. The survey will be given to participants upon completion of the program as a formative assessment of the program (Appendix E). (February, 2015)
8. The professional development program is shared with a small group of instructional technology coaches in order to provide feedback on the formative evaluation survey and solicit suggestions on editing content to make the program more efficient and effective. (March, 2015)
9. The website hosting the 30-Day Twitter Challenge (Appendix A) is completed and available for anyone to access and use as a form of professional development. (March, 2015)
10. A poster promoting the 30-Day Twitter Challenge and a letter describing the program is created (Appendix H). These materials are sent by mail to each of the 50 largest school districts in the state of Missouri according to student

enrollment K-12 to promote the use of the program by educators. (March, 2015)

### **Roles and Responsibilities of Student and Others**

I designed the 30-Day Twitter Challenge professional development program as a result of this project study. I created the webpage to host the program, recorded the video messages for each day, curated the content for the site and wrote the formative evaluation to accompany the survey. I will monitor the formative evaluations as they are completed and make modifications to the 30-Day Twitter Challenge website as needed to ensure the best possible experience for those individuals participating. It will be the responsibility of the learner to have the self-motivation to participate in the professional development program. If the program is selected by an administrator or instructional coach as a professional development module used for certification purposes in their own district, it will be their responsibility to gage completion of the program.

### **Project Evaluation**

A formative evaluation will be used to assess and evaluate the effectiveness of the professional development model created as a result of this study. The function of formative evaluation is to collect data on the instruction in order to provide direction and guidance for modifications to make it more effective and efficient (Dick, Carey, & Carey, 2014). In order to improve instruction it is important to evaluate the learner's performance (Heritage, 2010). A survey (Appendix E) was created that is available to individuals who participate in the professional development program as it is available to the general public. This survey is used as a formative evaluation to provide feedback

from the initial participants using the program on the three main criteria of instructional design: clarity of message, impact on the learner's achievement and feasibility of instruction with provided resources (Dick et al., 2014).

Prior to launching the 30-Day Twitter Challenge for Teachers professional development program, several teachers who are considered fluent in educational technology as instructional coaches were asked to review the program and provide feedback. This feedback was used to make slight modifications to the program in order to make it more effective for the learner. An expert review of newly created professional development is an important step to creating a more effective program (Dick et al., 2014).

The tool used as a formative evaluation for this project is the survey created by the researcher, located in Appendix E. The survey is available for all participants who use the 30-Day Twitter Challenge professional development program through a link to the online survey on the program's home page. The survey is available online as a Google Form, allowing the individual completing the survey to efficiently and anonymously provide feedback on their experience using the program. The survey contains a total of 8 questions – seven multiple choice and one extended response question.

The goal of this evaluation is to collect information from participants using the program in order to make improvements to the website as data is collected. The results are collected online in the form of a Google Spreadsheet and monitored by the researcher in order to modify and potential improve the professional development program for future participants.

The key stakeholders for this professional development program are the individual participants and the school districts that choose to incorporate the program in their professional development plan. Some participants will be motivated individuals who learn of the program and utilize it to improve their own comfort level in using Twitter professionally as an educator. Schools who wish to participate may encourage staff to participate in the program or create internal incentives for staff to participate such as offering credit that would count toward required hours of professional development.

### **Implications Including Social Change**

#### **Local Community**

This study has described the need for social change in terms of making access to quality professional development for social studies teachers more equitable regardless of geographic location and/or economic resources available in the teacher's school district. School districts in Missouri are experiencing a lack of adequate funding for professional development and social studies teachers in Missouri are currently receiving little professional development that is content specific. The project created as a result of this study provides teachers a means to access content specific professional development at essentially no cost assuming the ability to connect to the Internet. Missouri has 73.4% of its district classified as "rural" (U.S. Department of Education & National Center for Education Statistics, 2010) and teachers in rural areas often have difficulty finding someone to collaborate with in their own building or district who teach in the same content area (Fry & Anderson, 2011). Learning how to participate using Twitter can also help connect educators who feel physically isolated from peers due to geography.

**Far-Reaching**

The project created as a result of this study has implications on both a local level and on a larger scale for educators everywhere. Locally this program can be suggested for use as a professional development module for a department or at a building level. The program can also be provided for individuals who may have asked if there is a way to learn more about participating on Twitter and in the past there was no organized form of professional development in which to participate. Without geographic restrictions or time limitations, this program can be used by educators anywhere in the world and in any content area to become more proficient in their use of Twitter as a collaborative tool.

**Conclusion**

The project created for the research study, a self-directed style professional development program to help an educator learn how to use Twitter for collaboration with peers, is described in Section 3. The qualitative data that has been collected and analyzed for this study was considered and then applied to the creation of this professional development program. Themes that emerged for the study were further researched and the results were included in the literature review contained in Section 3. Topics addressed in the literature review include self-directed learning, current uses of Twitter as a form of professional development and challenges to the use of Twitter in education. The manner in which this project will create social change, on both a local and more extensive scale, was described at the conclusion of this section. Section 4 contains an analysis of the strengths and weaknesses of the project as it addresses the problem, a self-

reflection of my experience as a learner during this study and implications for future research.

## Section 4: Reflections and Conclusions

### **Introduction**

The purpose of this study was to determine how social studies teachers are using Twitter to collaborate, specifically the #edchat known as #sschat, as a form of professional development. School districts are currently faced with limited budgets for providing professional development offerings for teachers (Franck, 2012), especially in content-specific areas such as social studies. Federal assessment mandates, such as NCLB, have marginalized social studies and made it difficult for consistent collaboration to take place among social studies teachers teaching the same content (Lautzenheiser et al., 2011).

Social media, especially Twitter, has experienced significant growth in education (Johnson et al., 2013). Twitter has the potential to minimize the limitations that can result from an individual's geographic location and provide content-specific professional development at virtually no cost. This section contains my personal reflections as a researcher conducting this research study while summarizing the research conducted as part of this study. This section also provides a description of how the project that accompanies this research study was developed. The social impact of this project and implications for future research are also included in this section.

### **Project Strengths**

School districts are faced with decreasing budgets allotted for professional development. It has become increasingly difficult to provide teachers with opportunities to collaborate with peers who teach the same content area (Metropolitan Life Insurance

Company, 2010). The project created as part of this study addresses these issues facing school districts and teachers. The strengths of this project in relation to these issues include the following: (a) the project is offered online and is available at any time for anyone who wishes to participate, without the limitation of only being offered at a specific time that may or may not conflict with other schedules; (b) geographic limitations are eliminated, as it is available online and anyone with Internet access can participate in the professional development program; and (c) participation in the professional development program is provided at no cost to the school district or individual, as long as participants have access to the Internet.

### **Recommendations for Remediation of Limitations**

The project is designed as a self-directed learning program and places the responsibility on the learner to be self-motivated to participate. The flexibility of the program and its availability at any time of day is a strength but can also be a limitation, as time outside of contracted school hours may be the optimal time for educators to participate. If the school district does not formally recognize or acknowledge the time devoted to the participation in the program, an individual may not have enough self-motivation to participate.

The following recommendations for school districts are based on the findings of this study and could encourage participation by more individuals in the district.

1. The school district should encourage teachers to participate in the program as a group. Research has shown that working as a collaborative group can create a more effective learning environment (Bereiter, 2002). Having the support of

a group in the district or building would provide opportunities for support and collaboration.

2. Schools should provide time within the school day to teachers who want to participate in the program. Although it may be difficult for a district to provide all of the time required to participate in the program within the school day, allowing some time to participate on contract time would demonstrate that the school administration finds value in learning to collaborate professionally on Twitter.
3. Schools should provide professional development credit for participating in the program as one of the options for fulfilling the amount of professional development required for recertification or certification (Visser et al., 2014).

### **Scholarship**

I have been an active participant on Twitter as an educator since 2007 and have held the belief that it is beneficial to me as an educator, but I had never previously conducted formal research on the topic of teachers using Twitter. Learning how educators participate on Twitter from the perspective of an educational researcher has provided me a new lens from which to view this tool. The research process supported some of my previously held beliefs and challenged others. I gained the ability to remove myself from the topic personally and approach it from a scholarly perspective.

### **Project Development and Evaluation**

The perspective of an educational researcher was integral as I developed the professional development program to address the needs revealed by the research findings.

The research for this study demonstrated the need for a new approach to professional development, as traditional formats are failing to produce desired results (Togneri & Anderson, 2003). A self-directed learning style of professional development was chosen for this program to provide an individualized approach to learning that focuses on the needs of adult learners and uses the flexibility of offering professional development through the Internet (Ferriter & Provenzano, 2013).

### **Leadership and Change**

The process of researching educators' use of Twitter and developing my professional development program has given me more confidence in my role as a leader with my peers. The ability to research best practices and apply findings to professional development opportunities has helped me take a more active role in my own building and within my school district. Access to scientific research describing various pedagogical strategies has provided me the support to try new professional development initiatives in my own district.

### **Analysis of Self as Scholar**

In completing this research study, I have developed skills that enable me to practice educational research. Prior to beginning the doctoral program, I viewed myself primarily as a practitioner, a teacher in the classroom. Researching scholarly articles and existing research on educational topics has provided me a different perspective on my work as a teacher. Learning to write in a more technical manner was the area in which I experienced the most growth. The process of collecting research, organizing it, managing it, and then properly citing it within my own writing involved skills I did not

have prior to beginning this program. I became more proficient in the use of applications to organize my scholarly research, specifically Zotero. I now have a deeper appreciation for the value of educational research and the role it can play in my growth as a teacher.

### **Analysis of Self as Practitioner**

As primarily a classroom teacher, I found that the experience of conducting educational research has enabled me to reflect on the impact that embedding best practices from research can have on my own teaching. As an active practitioner of my craft, I want to be knowledgeable on current educational research that can be applied to the manner in which I teach my students. Prior to the experience of conducting research for this program, I was not aware of the potential of effectively transferring researched best practice to my teaching on a regular basis.

### **Analysis of Self as Project Developer**

The perspective of an educational researcher was integral as I developed the professional development program to address the needs revealed by the research findings. The research for this study demonstrated the need for a new approach to professional development, as traditional formats are failing to produce desired results (Togneri & Anderson, 2003). A self-directed learning style of professional development was chosen for this program to provide an individualized approach to learning that focuses on the needs of adult learners and uses the flexibility of offering professional development through the Internet (Ferriter & Provenzano, 2013).

### **The Project's Potential Impact on Social Change**

This study has the potential to create positive social change in multiple perspectives. The program created as a result of this study is available to anyone for no cost. The open access to this professional development democratizes the process of learning about how to use Twitter as a collaborative tool. Financial constraints are one of the barriers school districts face in implementing effective professional development. The lack of cost to participate in this program eliminates one of the barriers and provides access to more educators.

Access to the program by anyone through the Internet also empowers the individual learner to be in control of their own professional learning. There are no permissions or request for participation by the individual who wishes to learn more about using Twitter for educational purposes. The motivation and desire of the individual learner is the only limitation to participation.

### **Implications, Applications, and Directions for Future Research**

The research conducted for this study demonstrated that there is an existing need to help teachers collaborate in order to continue to improve their instruction. Technological tools such as social media can help connect these teachers in ways not possible prior to the age of the Internet. Many school districts have not yet embraced the use of Twitter by their faculty members as a source of professional development but as more research is conducted on social media and collaboration it should become more widely accepted (Visser et al., 2014).

The use of Twitter as a community of practice that can connect teachers of similar content is an important and significant aspect of this research. Teachers in rural areas often have no peers in their district who teach similar content and thus collaboration within the district is non-existent (Fry & Anderson, 2011). Geographical limitations can create a sense of isolation detrimental to teachers, especially new teachers (J. A. Moore & Chae, 2007). I experienced this isolation first hand as a new teacher. Teaching in a small rural district in Nebraska for the first five years of my career I was the only secondary social studies teacher in the entire district. Each day I taught six different social studies classes for grades 7-12. I had no peers with which to collaborate and since it was the early days of the Internet my own opportunities to learn about best practices came from a couple of professional development workshops or conferences which were often not social studies specific. Social media and the Internet provide an opportunity for teachers to connect and learn from each other and decrease the feeling of isolationism which often has a disparaging impact on teachers (Redding & Walberg, 2012).

Application of the program will create a positive social change on a variety of levels. First, the program will be promoted in my own district as an opportunity for teachers who want to learn more about using Twitter for educational purposes. I am often asked about how to start using Twitter and this program will be one suggestion I can share with teachers new to Twitter. Second, I hope that this program will be implemented by a variety of school districts across Missouri. I have sent a flyer and letter describing the 30-Day Twitter Challenge for Teachers program to the fifty largest school districts in Missouri. It is my desire that this program will increase the use of

Twitter among teachers in my own state and potentially more districts may see the value of Twitter as a source of professional development. Districts may formally recognize participation in Twitter as a form of professional development that earns credit for recertification or to meet requirements for professional development. This would be a significant step toward legitimizing social media in education and reduce the negative implications of educator participation.

Beyond implementation of this professional development program, I would like to share the findings of this research study with educators and administrators who are considering promoting social media use among their staff members. I have been presenting on the topic of teachers using Twitter in the past at conferences and workshops and will continue to do so in the future. I also have a desire to publish these research findings and the professional development program created as a portion of this study in an education journal if provided an opportunity.

### **Directions for Future Research**

This research study collected data from the specific content area of social studies teachers and their use of #sschat, an #edchat, specifically focused on social studies content. A recommendation for future research would be additional studies on content specific #edchats. Among existing content specific #edchats, #sschat is one of the oldest and one of the most active. A future study could focus on additional content areas and the type of collaboration with exists in other #edchats.

An additional research topic could examine the way in which #edchats function as more teachers join Twitter and participate. The number of individuals participating in

Twitter continues to increase and thus more teachers may be participating in these #edchats in the future. It will be interesting to analyze if the close personal connections which prevalent among these participants today will continue as the number of participants increase.

The impact of teacher participation in #edchats on classroom instruction would be an additional area for future research. This study focused on how teachers collaborated with each other in #edchats as a form of professional development but a future study could focus on how instruction in the classroom is directly impacted as a result of teachers participating in Twitter chats. This would likely be a qualitative study focusing deeply on a smaller sample of teachers.

### **Conclusion**

The completion of this project study has provided me an opportunity to examine the topic of social studies teachers using Twitter to collaborate from a scholarly perspective. Through the collection of qualitative data I have explored the benefits of teachers participating in #edchats, including a strong sense of community among participants and a network rich in expertise specific to social studies educators. The product of my research is a self-directed learning program to help guide teachers who want to learn how to participate in Twitter in professional manner. Twitter has the potential to positively impact teachers and increase collaboration among peers.

## References

- Ahmad, I. (2013, November 7). History of hashtags [Infographic]. Retrieved December 6, 2014, from <http://www.socialmediatoday.com/content/history-hashtags-infographic/>
- Anderson, J., Boyles, J. L., Rainie, L., Anderson, J., & Boyles, J. L. (2012). *The future impact of the Internet on higher education*. Retrieved from <http://www.voced.edu.au/content/ngv52783>
- Anderson, S. (2012, March 14). Blogging about the Web 2.0 connected classroom: A brief history of #edchat. Retrieved from <http://blog.web20classroom.org/2012/03/brief-history-of-edchat.html>
- Barab, S., Makinster, J., Moore, J., & Cunningham, D. (2001). Designing and building an on-line community: The struggle to support sociability in the inquiry learning forum. *Educational Technology Research & Development*, 49(4), 71–96.  
doi:10.1007/BF02504948
- Barnes, M. (2012). Twitter is the best education PD, period! And it's free! Retrieved May 7, 2014, from [http://edge.ascd.org/\\_Twitter-is-the-best-education-PD-Period-And-it39s-free/blog/6445261/127586.html?as=127586](http://edge.ascd.org/_Twitter-is-the-best-education-PD-Period-And-it39s-free/blog/6445261/127586.html?as=127586)
- Barrett, D. E., Casey, J. E., Visser, R. D., & Headley, K. N. (2012). How do teachers make judgments about ethical and unethical behaviors? Toward the development of a code of conduct for teachers. *Teaching and Teacher Education: An International Journal of Research and Studies*, 28(6), 890–898.  
doi:10.1016/j.tate.2012.04.003

- Bauer, W. I. (2010). Your personal learning network professional development on demand. *Music Educators Journal*, 97(2), 37–42.  
doi:10.1177/0027432110386383
- Beach, R. (2012). Research and policy: Can online learning communities foster professional development? *Language Arts*, 89(4), 256–262.
- Benwell, T. (2010, January). Shelly Terrell defines #EdChat. Retrieved from <http://edition.tefl.net/articles/interviews/shelly-terrell-defines-edchat/>
- Bereiter, C. (2002). *Education and mind in the knowledge age*. Mahwah, NJ: Psychology Press.
- Berkman, F. (2013, January 7). How the world consumes social media. Retrieved from <http://mashable.com/2013/01/17/social-media-global/>
- Bickmore, D. L. (2011). Professional learning experiences and administrator practice: Is there a connection? *Professional Development in Education*, 38(1), 1–18.  
doi:10.1080/19415257.2011.579004
- Bilton, N. (2013). *Hatching Twitter: A true story of money, power, friendship, and betrayal*. New York, NY: Portfolio.
- Bingham, T., & Connor, M. (2010). *The new social learning*. San Francisco, CA: Berrett-Koehler.
- Boerema, A. J. (2011). Challenging and supporting new leader development. *Educational Management Administration & Leadership*, 39(5), 554–567.  
doi:10.1177/1741143211408451

Bolduc, B. (2011, June 18). Don't know much about history. *Wall Street Journal*.

Retrieved from

<http://online.wsj.com/article/SB10001424052702304432304576369421525987128.html>

Bolhuis, S. (1996). *Towards active and self-directed learning: Preparing for lifelong learning, with reference to Dutch secondary education*. Retrieved from

<http://eric.ed.gov/?id=ED396141>

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher*, 38(8), 3–15.

Boyd, D. M., & Ellison, N. B. (2007). Social networking site: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, Article 11(1).

Retrieved from <http://www.danah.org/papers/JCMCIntro.pdf>

Brewer, J. (2013). *Pew Internet: Social networking*. Retrieved from <http://pewinternet.org/Commentary/2012/March/Pew-Internet-Social-Networking-full-detail.aspx>

Campbell, T., Melville, W., & Bartley, A. (2012). Strengthening science departments. *Science Teacher*, 79(6), 60–63.

Carpenter, J. P., & Krutka, D. G. (2014a). Chat it up. *Learning & Leading With Technology*, 41(5), 10–15.

Carpenter, J. P., & Krutka, D. G. (2014b). How and why educators use Twitter: A survey of the field. *Journal of Research on Technology in Education*, 46(4), 414–434.  
doi:10.1080/15391523.2014.925701

- Chamberlin, L., & Lehmann, K. (2011). Twitter in higher education. In *Educating Educators with Social Media* (Vols. 1-0, Vol. 1, pp. 375–391). Emerald Group Publishing Limited. Retrieved from [http://www.emeraldinsight.com/doi/abs/10.1108/S2044-9968\(2011\)0000001021](http://www.emeraldinsight.com/doi/abs/10.1108/S2044-9968(2011)0000001021)
- Cheatham, C. (2010, September). The high cost of educating teachers. Retrieved February 1, 2014, from <http://www.kmov.com/news/local/The-High-Cost-of-Educating-Teachers-104007928.html>
- Cleaver, S. (2013, July 29). We are teachers. Retrieved from <http://www.weareteachers.com/community/blogs/weareteachersblog/blog-wat/2013/07/29/online-professional-development-a-guide-to-social-media-for-educators>
- Collinson, V., Kozina, E., Kate Lin, Y.-H., Ling, L., Matheson, I., Newcombe, L., & Zogla, I. (2009). Professional development for teachers: a world of change. *European Journal of Teacher Education*, 32(1), 3–19.  
doi:10.1080/02619760802553022
- Cooper, B. B. (2013, July 16). 10 Surprising social media statistics that might make you rethink your social strategy. Retrieved October 7, 2013, from <http://blog.bufferapp.com/10-surprising-social-media-statistics-that-will-make-you-rethink-your-strategy>
- Corno, L. (1992). Encouraging students to take responsibility for learning and performance. *The Elementary School Journal*, 93(1), 69–83.

- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating qualitative and quantitative research* (Third). Boston, MA: Pearson.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (Third). Los Angeles, CA: SAGE Publications Ltd.
- Cunningham, A. (2013). Social studies chat. Retrieved October 30, 2013, from <http://sschat.ning.com/>
- Dahlstrom, E. (2012). ECAR study of undergraduate students and information technology 2012. Educause Center for Applied Research. Retrieved from <http://net.educause.edu/ir/library/pdf/ERS1208/ERS1208.pdf>
- Dahlstrom, E., de Boor, T., Grunwald, P., & Vockley, M. (2011). *National study of undergraduate students and information technology*. Boulder, CO: Educause.
- Daly, A. J. (2010). *Social network theory and educational change*. Cambridge, Mass.: Harvard Education Press.
- Daly, A. J., Moolenaar, N. M., Bolivar, J. M., & Burke, P. (2010). Relationships in reform: the role of teachers' social networks. *Journal of Educational Administration*, 48(3), 359–391. doi:10.1108/09578231011041062
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad* (p. 32). Dallas: National Staff Development Council. Retrieved from [www.nsdc.org](http://www.nsdc.org)
- Davis, M. R. (2011). Social media feeds freewheeling PD. *Education Week*, 31(9), S13–S14.

- Demski, J. (2010). Tweets for teachers. *T H E Journal*, 37(2), 16–18.
- Dewey, J. (1950). *Reconstruction in philosophy*. New York: The New American Library.
- Dick, W., Carey, L., & Carey, J. O. (2014). *Systematic design of instruction, The* (8 edition). Pearson.
- Doctor, V. (2013a, March 22). What does favoriting a tweet mean? Retrieved from <http://www.hashtags.org/platforms/twitter/what-does-favoriting-a-tweet-mean/>
- Doctor, V. (2013b, May 30). Hashtag history: When and what started it? Retrieved from <https://www.hashtags.org/featured/hashtag-history-when-and-what-started-it/>
- Downes, S. (2001). Learning objects: Resources for distance education worldwide. *The International Review of Research in Open and Distance Learning*, 2(1).
- Dube, L., Bourhis, A., & Jacob, R. (2006). Towards a typology of virtual communities of practice. *Interdisciplinary Journal of Information, Knowledge, and Management*, 1. Retrieved from <http://www.ijikm.org/Volume1/IJIKMv1p069-093Dube.pdf>
- Dunlap, J. C., & Lowenthal, P. R. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, 20(2), 129–135.
- Dunn, J. (2012, January 4). Why students like social media but schools don't. Retrieved from <http://www.edudemic.com/students-social-media/>
- Edwards, J. (2013, November 21). The inventor of the Twitter hashtag explains why he didn't patent it. Retrieved December 6, 2014, from <http://www.businessinsider.com/chris-messina-talks-about-inventing-the-hashtag-on-twitter-2013-11>

- Ferriter, W. M., & Provenzano, N. (2013). Self-directed learning . . . for teachers. *Phi Delta Kappan*, 95(3), 16–21.
- Fewkes, A. M., & McCabe, M. (2012). Facebook: Learning tool or distraction? *Journal of Digital Learning in Teacher Education*, 28(3), 92–98.
- Fisher, M., & Baird, D. E. (2005). Online learning design that fosters student support, self-regulation, and retention. *Campus-Wide Information Systems*, 22(2), 88–107.  
doi:10.1108/10650740510587100
- Flaherty, B. (2013). Challenges of technology, social media, and information control. *School Business Affairs*, 79(4), 26–28.
- Forrest, S. P., & Peterson, T. O. (2006). It's called andragogy. *Academy of Management Learning and Education*, 5(1), 113–122.
- Forte, A., Humphreys, M., & Park, T. (2012). Grassroots professional development: How teachers use Twitter. Presented at the AAAI International Conference, Dublin, Ireland. Retrieved from <http://www.andreaforte.net/ForteICWSM12.pdf>
- Franck, M. (2012, June 7). Missouri school funding fix is no cure-all. *St. Louis Post-Dispatch*.
- Fry, S. W., & Anderson, H. (2011). Career changes as first-year teachers in rural schools. *Journal of Research in Rural Education*, 26(12), 1–15.
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly - ADULT EDUC QUART*, 48(1), 18–33.  
doi:10.1177/074171369704800103

- Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (Fourth). Boston, MA: Pearson.
- Goldfarb, A., Pregibon, N., Shrem, J., & Zyko, E. (2011). *Informative brief on social networking in education*. New York, NY: New York Comprehensive Center.
- Graham, S., & Teague, C. (2011). Reading levels of rural and urban third graders lag behind their suburban peers. *Carsey Institute*, (Issue Brief 28). Retrieved from [www.carseyinstitute.unh.edu](http://www.carseyinstitute.unh.edu)
- Gray, J. H., & Tatar, D. (2004). Designing for virtual communities of practice in the service of learning. In *Sociocultural analysis of online professional development: A case study of personal, interpersonal, community, and technical aspects* (pp. 404–436). New York, NY: Cambridge University Press. Retrieved from <http://people.cs.vt.edu/~tatar/Downloads/SocioCulturalAnalysisTappedIn.pdf>
- Guarino, C. M., Santibañez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research*, 76(2), 173–208.
- Guenther, J., & Weible, T. (1983). Preparing teachers for rural schools. *Rural Education*, 1(2), 59–61.
- Guthrie, J. T., Alao, S., & Rinehart, J. M. (1997). Literacy issues in focus: Engagement in reading for young adolescents. *Journal of Adolescent & Adult Literacy*, 40(6), 438–446.
- Hancock, D. R., & Algozzine, B. (2006). *Doing case study research: A practical guide for beginning researchers*. New York, NY: Teachers College Press.

- Hansen, A. (2013, December 31). How educators are using social media for professional development. Retrieved June 4, 2014, from <https://stateimpact.npr.org/ohio/2013/12/31/how-educators-use-social-media-for-professional-development/>
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- Hawley, W. D. (2006). *The keys to effective schools: Educational reform as continuous improvement*. Thousand Oaks, CA: Corwin Press.
- Herbert, M. (2012). Why All the Chatter About #EdChat? *District Administration*, 48(4), 51–54.
- Heritage, M. (2010). *Formative assessment and next-generation systems: Are we losing at opportunity?* (p. 24). Chief State School Officers. Retrieved from [http://www.ccsso.org/Documents/2010/Formative\\_Assessment\\_Next\\_Generation\\_2010.pdf](http://www.ccsso.org/Documents/2010/Formative_Assessment_Next_Generation_2010.pdf)
- Hess, R. (2013). “More PD” : The easy (but ineffectual) answer. Retrieved February 1, 2014, from [http://blogs.edweek.org/edweek/rick\\_hess\\_straight\\_up/2013/02/more\\_pd\\_the\\_easy\\_but\\_ineffectual\\_answer.html?cmp=SOC-SHR-FB](http://blogs.edweek.org/edweek/rick_hess_straight_up/2013/02/more_pd_the_easy_but_ineffectual_answer.html?cmp=SOC-SHR-FB)
- Hilburn, J., & Maguth, B. (2012). Intercollegiate collaboration: Connecting social studies pre-service teachers at two universities. *Contemporary Issues in Technology and Teacher Education*, 12(3), 308–327.

- Hinduja, S., & Patchin, J. W. (2009). *Bullying beyond the schoolyard: Preventing and responding to cyberbullying*. Thousand Oaks, CA: Corwin Press.
- Hobbs, D. (2013). A case for Twitter. *New Hampshire Journal of Education*, 21–24.
- Holmes, K., Preston, G., Shaw, K., & Buchanan, R. (2013). “Follow” me: Networked professional learning for teachers. *Australian Journal of Teacher Education*, 38(12). doi:10.14221/ajte.2013v38n12.4
- Honan, M. (2011, May 7). The lost origin of Twitter. Retrieved October 6, 2013, from <http://www.wired.com/business/2011/05/the-lost-origin-of-twitter/>
- Hooker, D. (2011, March 26). Is Twitter a community of practice? Retrieved from <http://danielhooker.com/2011/03/26/twitter-cop/>
- Houndshell, B. (2011, August). The revolution will be tweeted. *Foreign Policy*. Retrieved from [http://www.foreignpolicy.com/articles/2011/06/20/the\\_revolution\\_will\\_be\\_tweete](http://www.foreignpolicy.com/articles/2011/06/20/the_revolution_will_be_tweete)  
d
- Huang, C. (2011, June 6). Facebook and Twitter key to Arab Spring uprisings: report | The National. Retrieved December 6, 2014, from <http://www.thenational.ae/news/uae-news/facebook-and-twitter-key-to-arab-spring-uprisings-report>
- Hunt, B. (2013). Want better classroom tech? *Education Week*, 33(1), 7–7.
- Hunt, J., Powell, S., Little, M., & Mike, A. (2013). The effects of e-mentoring on beginning teacher competencies and perceptions. *Teacher Education and Special*

*Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 36(4), 286–297.

Isaac, M. (2013, September 27). Instagram beats Twitter in daily mobile users for the first time, data says. Retrieved October 6, 2013, from

<http://allthingsd.com/20120927/instagram-beats-twitter-in-daily-mobile-users-for-the-first-time-data-says/>

Jaquith, A., Mindich, D., Wei, R. C., & Darling-Hammond, L. (2011). Teacher professional learning in the U.S.: Case studies of state policies and strategies.

*Education Digest: Essential Readings Condensed for Quick Review*, 77(2), 33–39.

Jimerson, L. (2004). *Teachers and teaching conditions in rural Texas*. The Rural School and Community Trust.

Johnson, L., Adams Becker, S., Cummins, E., Estrada, V., Freeman, A., & Ludgate, H. (2013). *NMC horizon report: 2013 K-12 edition*. Austin, TX: New Media Consortium.

Joshua Dunn, & Derthick, M. (2013). Digital discipline. *Education Next*, 13(3), 7.

Kabilan, M. K., Adlina, W. F. W., Embi, M. A., Kabilan, M. K., Adlina, W. F. W., & Embi, M. A. (2011). Online collaboration of English language teachers for meaningful professional development experiences. *English Teaching: Practice and Critique*, 10(4), 94–115.

Kelm, O. R. (2011). Social media it's what students do. *Business Communication Quarterly*, 74(4), 505–520. doi:10.1177/1080569911423960

- Kennedy, K. (2013, February 22). Use it or lose it: Social media in the 2012 election. Retrieved October 11, 2013, from <http://pulitzercenter.org/reporting/social-media-role-young-voters-increase-future-US-elections-Obama-Facebook-Twitter>
- Kharbach, M. (2013, April 5). 8 reasons behind social media ban in schools ~ Educational technology and mobile learning. Retrieved from <http://www.educatorstechnology.com/2013/04/5-reasons-behind-social-media-ban-in.html>
- Klingen-Smith, K. (2009, May 5). PLN: Your personal learning network made easy. Retrieved from <http://onceateacher.wordpress.com/2009/05/05/pln-your-personal-learning-network-made-easy/>
- Knowles, M. S. (1950). *Informal adult education: a guide for administrators, leaders, and teachers*. New York, NY: Association Press.
- Knowles, M. S. (1968). Andragogy, not pedagogy. *Adult Leadership*, 16(10), 350–352.
- Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. Chicago, IL: Association Press.
- Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. New York, NY: Cambridge Adult Education.
- Knowles, M. S. (1984). *Andragogy in action: Applying modern principles of adult learning* (1 edition). San Francisco, CA: Jossey-Bass.
- Kok, A. J. (2006). Enhancing information literacy in an interdisciplinary collaboration. *Journal of Technology in Human Services*, 24(2/3), 83–103.  
doi:10.1300/J017v24n0205

- Lang, J. M. (2012, April 10). Using Twitter to talk about teaching. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Using-Twitter-to-Talk-About/131442/>
- Lautzenheiser, D., Kelly, A., & Miller, C. (2011). *Contested curriculum: How teachers and citizens view civics education*. American Enterprise Institute. Retrieved from <http://www.citizenship-aei.org/wp-content/uploads/Contested-Curriculum.pdf>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Levine, P. (2013). *What the NAEP civics assessment measures and how students perform*. The Center for Information & Research on Civic Learning & Engagement. Retrieved from <http://www.civicyouth.org/wp-content/uploads/2013/01/NAEP-Fact-Sheet-2013.pdf>
- Lodico, M. G., Spaulding, D. T., & Voegtler, K. H. (2006). *Methods in educational research: From theory to practice*. San Francisco, CA: Jossey-Bass.
- Lomicka, L., & Lord, G. (2009). *The next generation: Social networking and online collaboration in foreign language-learning*. Calico. Retrieved from <https://www.calico.org/page.php?id=430>
- Lu, A. (2011, July 13). Twitter evolving into professional-development tool. *Education Week*. Retrieved from <http://www.edweek.org/ew/articles/2011/07/13/36twitter.h30.html>

- Maloney, C., & Konza, D. (2011). A case study of teachers' professional learning: Becoming a community of professional learning or not? *Issues in Educational Research, 21*(1), 75–87.
- Maxwell, J. A. (2012). *Qualitative Research Design: An Interactive Approach*. Thousand Oaks, CA: SAGE Publications.
- McCue, T. (2013, January 29). Twitter ranked fastest growing social platform in the world. Retrieved October 6, 2013, from <http://www.forbes.com/sites/tjmccue/2013/01/29/twitter-ranked-fastest-growing-social-platform-in-the-world/>
- McLaughlin, M. W., & Talbert, J. E. (2001). *Professional communities and the work of high school teaching*. Chicago, IL: University of Chicago Press.
- McLeod, S., & Lehrmann, C. (2-12). *What school leaders need to know about digital technologies and social media*. Jossey-Bass. Retrieved from <http://www.josseybass.com/WileyCDA/WileyTitle/productCd-1118022246.html>
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2006). *Learning in adulthood: A comprehensive guide*. San Francisco, CA: Jossey-Bass.
- Metropolitan Life Insurance Company. (2010). *The MetLife survey of the American teacher: Collaborating for student success*. MetLife, Inc.

- Missouri State Senate. (1993). A primer to the outstanding schools act. Retrieved from <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED369165>
- MMS Education. (2012). *2012 survey of K-12 educators on social networking, online communities, and web 2.0 tools*. Retrieved from <http://www.edweb.net/fimages/op/reports/Educators-and-Social-Media-2012-web.pdf>
- Monk, D. H. (2007). Recruiting and retaining high-quality teachers in rural areas. *Future of Children, 17*(1), 155–174.
- Moolenaar, N. M., Slegers, P., & Daly, A. J. (2012). Teaming up: Linking collaboration networks, collective efficacy, and student achievement. *Teaching and Teacher Education, 28*(2), 251–262.
- Moore, B. (2008). Using technology to promote communities of practice (CoP) in social work education. *Social Work Education, 27*(6), 592–600.  
doi:10.1080/02615470802201580
- Moore, J. A., & Chae, B. (2007). Beginning teachers' use of online resources and communities. *Technology, Pedagogy and Education, 16*(2), 215–224.  
doi:10.1080/14759390701406844
- National Council for the Social Studies. (2013). 2013 NCSS conference registration form. Retrieved from <http://www.socialstudies.org/system/files/images/exhibitfloorplan/2013%20NCSS%20Registration%20form.pdf>

- O'Dell, J. O. (2011, January 24). The history of social media. Retrieved October 8, 2013, from <http://mashable.com/2011/01/24/the-history-of-social-media-infographic/>
- Organisation for Economic Co-operation and Development. (2009). *Education at a glance 2009*. Retrieved from [www.oecd.org/publishing](http://www.oecd.org/publishing)
- Owston, R. D. (2009). Comments on Greenhow, Robelia, and Hughes: Digital immersion, teacher learning, and games. *Educational Researcher*, 38(4), 270–273. doi:10.3102/0013189X09336673
- Paavola, S., Lipponen, L., & Hakkarainen, K. (2004). Models of innovative knowledge communities and three metaphors of learning. *Review of Educational Research*, 74(4), 557–576. doi:10.3102/00346543074004557
- Patel, L. (2010). The rise of social media. *T+D*, 64(7), 60–61.
- Patton, M. Q., & Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Pugach, M. C. (1999). The professional development of teachers from a “communities of practice” perspective. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 22(4), 217–217. doi:10.1177/088840649902200403
- Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4–15. doi:10.3102/0013189X029001004
- Redding, S., & Walberg, H. J. (2012). *Promoting learning in rural schools*. Center on Innovation & Improvement.

- Routman, R. (2002). Facebook as a source of informal teacher professional development. *Educational Leadership*, 56(6), 32–35.
- Rutherford, C. (2013). Facebook as a Source of Informal Teacher Professional Development. *In Education*, 16(1). Retrieved from <http://www.ineducation.ca/index.php/ineducation/article/view/76>
- Sagolla, D. (2009, January 30). How twitter was born. Retrieved October 6, 2013, from <http://www.140characters.com/2009/01/30/how-twitter-was-born/>
- Saldana, J. (2009). *The coding manual for qualitative researchers*. SAGE.
- Seamean, J., & Tinti-Kane, H. (2013). *Social media for teaching and learning*. Pearson Learning Solutions and Babson Survey Research Group. Retrieved from <http://www.pearsonlearningsolutions.com/higher-education/social-media-survey.php>
- Semiocast. (2012, July 30). Twitter reaches half a billion accounts — More than 140 millions in the U.S. Retrieved October 6, 2013, from [http://semiocast.com/en/publications/2012\\_07\\_30\\_Twitter\\_reaches\\_half\\_a\\_billion\\_accounts\\_140m\\_in\\_the\\_US](http://semiocast.com/en/publications/2012_07_30_Twitter_reaches_half_a_billion_accounts_140m_in_the_US)
- Shareski, D. (2013, June 21). Professional development is not that complicated. Retrieved from <http://ideasandthoughts.org/2013/06/21/professional-development-is-not-that-complicated/>
- Simpson, M. (2014, February 5). 2014 SXSW interactive session spotlight: digitally democratizing education. Retrieved May 7, 2014, from

<http://sxsw.com/interactive/news/2014/2014-sxsw-interactive-session-spotlight-digitally-democratizing-education>

Smith, D. (2010, May 29). Twitter hashtags: Nonprofits speak up. Retrieved December 6, 2014, from <http://www.devonvsmith.com/2010/05/twitter-hashtags-nonprofits-speak-up/>

Social media. (2013). In *Merriam-Webster dictionary*. Retrieved October 9, 2013, from <http://www.merriam-webster.com/dictionary/social%20media>

#sschat. (2014, December 6). #sschat website. Retrieved December 7, 2014, from <http://www.sschat.org/>

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE.

Stern, S., & Stern, J. (2011). *The state of state U.S. history standards 2011*. Thomas B. Fordham Institute. Retrieved from <http://www.edexcellence.net/publications/the-state-of-state-us.html>

Stevens, K. (2014, April 30). Twitter exec reports that educators dominate the Twitter sphere. Retrieved June 4, 2014, from <https://www.edsurge.com/n/2014-04-30-twitter-exec-reports-that-educators-dominate-the-twitter-sphere>

Storify. (2014). Storify - Create stories using social media. Retrieved June 6, 2014, from <https://storify.com/>

Swanson, K. (2014, March 25). Social media gives professional development a long tail. Retrieved from <http://smartblogs.com/education/2014/03/25/social-media-gives-professional-development-a-long-tail/>

- Togneri, W., & Anderson, S. E. (2003). *Beyond islands of excellence: What districts can do to improve instruction and achievement in all schools* (p. 84). Washington DC: Learning First Alliance. Retrieved from <http://www.learningfirst.org/sites/default/files/assets/biefullreport.pdf>
- Tsai, I.-C., Laffey, J. M., & Hanuscin, D. (2010). Effectiveness of an online community of practice for learning to teach elementary science. *Journal of Educational Computing Research*, 43(2), 225–258.
- Turkle, S. (2012, April 21). The flight from conversation. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/04/22/opinion/sunday/the-flight-from-conversation.html>
- Twitter. (2013a, October 3). SEC form S-1 registration statement. Retrieved October 6, 2013, from <http://www.sec.gov/Archives/edgar/data/1418091/000119312513390321/d564001ds1.htm>
- Twitter. (2013b, December 9). Twitter help center. Retrieved from <https://support.twitter.com/articles/49309-using-hashtags-on-twitter>
- Twitter. (2014a). Twitter Help Center. Retrieved from <https://support.twitter.com/articles/166337-the-twitter-glossary#r>
- Twitter. (2014b, December 6). About Twitter, Inc. Retrieved December 6, 2014, from <https://about.twitter.com/company>

- U.S. Department of Education, & National Center for Education Statistics. (2010). *Local education agency universe survey* (Statistics). Retrieved from [http://nces.ed.gov/surveys/ruraled/tables/archive/a.1.a.-1\\_0910\\_2.asp?refer=](http://nces.ed.gov/surveys/ruraled/tables/archive/a.1.a.-1_0910_2.asp?refer=)
- Valdez, D., Reich, B. J., & Berson, M. J. (2010). *Technology in retrospect: Social studies place in the information age*. Information Age Publications.
- Visser, R. D., Evering, L. C., & Barrett, D. E. (2014). #TwitterforTeachers: The Implications of Twitter as a Self-Directed Professional Development Tool for K–12 Teachers. *Journal of Research on Technology in Education*, 46(4), 396–413. doi:10.1080/15391523.2014.925694
- Vrasidas, C., & Zembylas, M. (2004). Online professional development: lessons from the field. *Education and Training*, 46(6/7), 326–334.
- Vygotsky, L. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Waldorf, K. L., & Lynn, S. K. (2002). The early years: Mediating the organizational environment. *The Clearing House*, 75(4), 190–194.
- Walker, T. (2012, August 25). Friend or foe? Schools still struggling with social media. Retrieved from <http://neatoday.org/2012/04/25/friend-or-foe-districts-still-struggling-with-social-media/>
- Wallace, M. House Bill 1543, Pub. L. No. 1543 (2010).
- Warlick, D. (2007, November 29). *Personal learning networks*. Technology, North Carolina. Retrieved from <http://www.slideshare.net/dwarlick/personal-learning-networks>

- Warlick, D. (2010). *A gardener's approach to learning*. The Landmark Project. Retrieved from <http://www.lulu.com/us/en/shop/david-warlick/a-gardeners-approach-to-learning/paperback/product-11922720.html>
- Wasley, P., & Hirsh, S. (2010, July 22). Teacher development not a smart cutback in tough times. Retrieved February 1, 2014, from [http://seattletimes.com/html/opinion/2012377639\\_\\_guest19teachers.html](http://seattletimes.com/html/opinion/2012377639__guest19teachers.html)
- Wenger, E. (1991). Communities of practice: Where learning takes place. *Benchmark Magazine*, (Fall Issue). Retrieved from [http://www.ewenger.com/pub/pub\\_benchmark\\_wrd.doc](http://www.ewenger.com/pub/pub_benchmark_wrd.doc)
- Wenger, E. (2006, June). Communities of practice: A brief introduction. Retrieved from <http://wenger-trayner.com/theory/>
- Wenger, E. (2011, April 11). Tweet. Retrieved from <https://twitter.com/etiennewenger/status/57590439620001792>
- Wenger, E., White, N., Smith, J. D., & Rowe, K. (2005). Technologies for communities. In *In Guide de mise en place et d'animation de communautés de pratique intentionnelles*. Quebec: CEFRIO Research Institute. Retrieved from [http://technologyforcommunities.com/CEFRIO\\_Book\\_Chapter\\_v\\_5.2.pdf](http://technologyforcommunities.com/CEFRIO_Book_Chapter_v_5.2.pdf)
- Wesely, P. M. (2013). Investigating the Community of Practice of World Language Educators on Twitter. *Journal of Teacher Education*, 64(4), 305–318.  
doi:10.1177/0022487113489032

- Woodland, R., Lee, M., & Randall, J. (2013). A validity study of the teacher collaboration assessment survey. *Educational Research and Evaluation, 19*(5), 440–460.
- Wright, N. (2010). Twittering in teacher education: reflecting on practicum experiences. *Open Learning: The Journal of Open and Distance Learning, 25*(3), 259–265.  
doi:10.1080/02680513.2010.512102
- Yoon, Duncan, Lee, Scarloss, & Shapley. (2007). Reviewing the evidence on how teacher professional development affects student achievement. Retrieved from [http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel\\_2007033\\_sum.pdf](http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033_sum.pdf)
- Zak, E. (2013, October 3). How Twitter's hashtag came to be [Wall Street Journal]. Retrieved from <http://blogs.wsj.com/digits/2013/10/03/how-twitters-hashtag-came-to-be/>

## Appendix A: The Project

The project for this research study is a professional development program created to help teachers learn the basics of collaborating using Twitter. This program was developed and created between January and March of 2015. The program has been created to allow anyone to access at any time online and work at a self-directed pace. The fundamentals of using Twitter as an educator have been divided into separate topics for a total of 30 day

The professional development program is entitled “The 30 Day Twitter Challenge for Teachers” and is available at [www.twitterforteachers.com](http://www.twitterforteachers.com) for free. Each day is designed in a similar format: an introductory video to briefly explain the topic for that particular day, a list of online resources (videos or links to websites), and a task for the learner to complete for the day which correlates with the focus for that particular day.

The site also includes a link to an evaluation survey that will be collected to determine possible improvements, which can be applied in the future to enhance the use of the program. A Google Document has also been provided to help the learner record and reflect on each daily topic as they progress through the program.

Appendix A provides a screenshot image of each page of the website. The online evaluation for this program is available in Appendix E.

## Homepage – Twitter for Teachers Website Project



- Learn More About this Program
- Reflective Journal for Program
- Contact Eric

- Day 1 - What is Twitter?
- Day 2 - Twitter in Education
- Day 3 - School vs Personal
- Day 4 - Selecting a Twitter Name
- Day 5 - Creating Your Twitter Account
- Day 6 - Your Twitter Profile Picture
- Day 7 - Your Twitter Bio
- Day 8 - Being a Lurker
- Day 9 - Who to Follow?
- Day 10 - Writing in 140 Characters
- Day 11 - Send a Tweet
- Day 12 - Organize Your Pack
- Day 13 - Replies
- Day 14 - Direct Messages
- Day 15 - Retweeting
- Day 16 - Favoriting
- Day 17 - Following Conversations
- Day 18 - Adding Images
- Day 19 - Sharing Links
- Day 20 - Twitter Lists
- Day 21 - Educational Hashtags
- Day 22 - Creating a Hashtag
- Day 23 - What is an Edchat?
- Day 24 - Finding Your EdChat
- Day 25 - TweetDeck
- Day 26 - Recording a Chat
- Day 27 - School Twitter Accounts
- Day 28 - Twitter on Your Phone
- Day 29 - Sharing Your Favorites
- Day 30 - Sharing Twitter with Large Groups

- Graduation!
- Online Survey of Program



1. Watch the intro video
2. Explore the resources
3. Complete the daily task



### DAY 18 Adding Images to Tweets

At first glance Twitter seems to be a lot of short text messages but the addition of images to tweets is becoming more and more common. Images can help tell a story and beyond the 140 characters you have to work with in a tweet. We will explore how you can add images to your Tweets and how they can make your tweets more impactful.



Daily Video Introduction:

#### Today's Resources:





- Website - Pinning Images on Twitter by Twitter Help Center
- Article - The Complete Guide to Tweeting Images on Twitter by Mike
- Blog - Photos Just Got More Social by Cesar Puerto
- Blog - What Fuel's A Tweet's Engagement by Simon Rogers
- Video - How to Upload Pictures and Video to Twitter by Allison Kopp

In a 2012 study, 91% of teachers responded that they find social media either "valuable" or "very valuable" to connect with professional colleagues.

- MMS Education

## Day 1 – Twitter for Teachers Website Project


30 Day Twitter Challenge for Teachers



www.TwitterForTeachers.com
Eric Langhorst | @elanghorst

---

DAY 1
What is Twitter?

Hello and welcome to Day 1 of the 30 Day Twitter Challenge. Every day has three steps: 1) Watch the short intro video, 2) check out the links to resources for today's topic and 3) complete the daily task at the bottom of the page. Let's start by looking at Twitter and how it was created back in 2006.

**Daily Video Introduction:**




CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

**Today's Resources:**

- **Book** - Here is an interesting book if you want to read about the creation of Twitter : [Hatching Twitter: A True Story of Money, Power, Friendship, and Betrayal](#) - book by Nick Bilton
- **Video** - Evan Williams, co-founder of Twitter discusses the creation of Twitter in this video on entrepreneurship [from Big Omaha in 2014](#)
- **Infographic** - [The Who, Why and How of Twitter Infographic](#)
- **Link** - [Twitter's Wikipedia page](#)
- **Book Excerpt** - [How Twitter Was Born](#) by Dom Sagolla

**Today's Task:**

Today's task is to watch a **seven minute video** from CBS Morning entitled "Inside the World of Twitter".



Congratulations! You have completed day 1 of the 30 Day Twitter Challenge for Teachers! See you tomorrow when we will look at some specific examples of how teachers can use Twitter as a tool in an educational setting.

Source: CBS Morning | Source: Khush | Source: Daria | Source: Arora | Source: Dr. [Gautam Elter](#)

## Day 2 – Twitter for Teachers Website Project



### DAY 2 Twitter in Education

Hello and welcome back to Day 2 of the 30 Day Twitter Challenge. Let's start by exploring some ways that you can use Twitter in education to give you a taste of why it will be worth it to learn this tool.

#### Daily Video Introduction:



#### Today's Task:

Today's task is to watch the following video from [Erin Klein](#) discussing a variety of ways that teachers can use Twitter in education. It is roughly 10 minutes in length and will discuss many topics that we will cover in the next several days so don't worry that it is a lot of information quickly. It will provide a variety of tools and skills we will be learning in this program.



#### Today's Resources:

- [Article - 50 Ways to Use Twitter in the Classroom by Samantha Miller](#)
- [Article - 5 Great Ways Students Can Use Twitter for Research by Laura Bates](#)
- [Research Paper - The Enlightenment Meets Twitter: Using Social Media in the Social Studies Classroom by Daniel Krutka and Michael K. Milton](#)
- [Article - Six-Year Project to Tweet the Second World War by Christopher Williams](#)
- [Article - British POW's 1940 "Twitter" Diary Released by Matthew Holehouse](#)



Once you have watched the video write down three ways that educators could benefit from using Twitter.

- 1.
- 2.
- 3.

Huzzah! You have completed Day 2 of the challenge! Now that we have wetted your appetite with some potential uses for Twitter in the classroom we will start helping you get your account set up. Tomorrow we debate the pros and cons of have separate Twitter accounts for school and personal use.

## Day 3 – Twitter for Teachers Website Project



### DAY 3

### School vs Personal Accounts

Personal and professional - there are pros and cons to having separate Twitter accounts for your personal and school use. There is not a clear right or wrong answer but something you should consider as we get ready to set up your Twitter account.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Article - School Board Fires Texas Teacher Over Ferguson Tweet - USA Today](#)
- [Blog - How \(And Why\) Teachers Should Have Multiple Twitter Accounts by Jeff Dunn](#)
- [Blog - Should I Have Separate Twitter Accounts: Professional and Personal by Brandon Grasley](#)
- [Blog - Personal and Professional vs Public and Private by George Couros](#)
- [Article - Teachers, Students and Social Media: Where is the Line? by Lori Grisham, USA Today](#)

#### Today's Task:

You've read the articles and blog posts in this personal vs school Twitter account debate, your task today is to determine if you want separate Twitter accounts. The topics for the next two days are selecting your Twitter name and setting up your account so be sure you have made up your mind before we move on to the next couple of steps. See you on Day 4!

## Day 4 – Twitter for Teachers Website Project



### DAY 4

### Selecting a Twitter Name

The next step is setting up your Twitter account so let's take some time today to think about what is often an afterthought but is really an important part of creating an account - deciding on your Twitter user name. Today we'll look at some considerations for creating your Twitter name as a teacher.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Blog - How to Choose a Domain Name or Username \(Teacher Perspective\)](#) by Virginia DeBoat
- [Article - Eight Twitter Username Tips](#) by Don Reisner, CNET
- [Article - 6 Tips to Choosing the Perfect Twitter Name](#) by Mitt Ray
- [Blog - Change Your Twitter Handle](#) by Alice Keeler
- [Twitter User Name Generator](#) by SpinXO (Mostly for fun, probably not the real way that you want to create your username)

#### Today's Task:

The task for today is pretty obvious - select some Twitter names!

You never know if yours is taken so to be safe let's choose 5 Twitter user names. Tomorrow we'll be creating your account so you want to have it ready to go for the next step. Use your 15 allotted characters well for your name! Good luck!

Congrats on selecting your Twitter names. Rest up, tomorrow is a big day - your Twitter birthday!

## Day 5 – Twitter for Teachers Website Project



### DAY 5 Creating Your Account

Today's step is to create your account. Yesterday you wrote down your top choices for a Twitter user name. Today the goal is to create our Twitter account and get this train rolling. It has to all start somewhere and creating your account is a big first step. Have those names ready and set up your account. We will discuss the next several steps in the coming days - selecting your Twitter profile picture, writing your Twitter bio and deciding who to follow.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Today's task is to create your Twitter account. It won't take a long time but it is a critical step because if you don't have an account you can't jump into the pool.

Congrats on creating your account! Over the next couple of days we'll discuss completing your settings and profile - a more important step than most people realize.

#### Today's Resources:



- Video - Setting up Your Twitter Account by Debbie Boyer
- Website - Signing Up For Twitter - Twitter Help Desk

## Day 6 – Twitter for Teachers Website Project



### DAY 6

### Choosing Your Twitter Avatar

Until you upload a picture to your Twitter settings you will be a "Twitter egghead" - the name given to those individuals who still have the Twitter default as their image which looks like an egg. Don't be an egghead. We will discuss today how to select an image to represent you on Twitter.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:



- [Article - 5 Tips for Creating The Perfect Profile Pic by Matt Silverman, Mashable](#)
- [Article - Updated Twitter Profile Picture Dimensions by Amanda MacArthur](#)
- [Article - Are You an Egghead on Twitter by Barry Feldman](#)
- [Article - How To Make A Twitter Header Image by Joe Donovan](#)
- [Blog Post - Why Your Twitter Profile Picture is More Important Than You Thought by Jack Martin](#)
- [Video - How to Choose Your Twitter Avatar by Andrew Knowles](#)

#### Today's Task:

We have discussed the specifics of your Twitter profile picture today as well as some pointers about how to select the picture. Today's task is to find the photo you want to use for your profile and then uploading it to your Twitter settings.

Congratulations upon completing the task today - you are no longer a "Twitter Egghead"! Tomorrow we will work on writing your Twitter bio.

## Day 7 – Twitter for Teachers Website Project



[Home](#) >

### DAY 7

### Writing Your Twitter Bio

Yesterday we learned how important it is to have a quality image for your Twitter picture. Now let's dive into that Twitter bio. Your bio on Twitter can only be a maximum of 160 characters so every letter counts. Your Twitter bio will encourage people to follow you or ignore you. Today we'll think about what we want to tell the world in our bio.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Another pretty obvious task for today. Grab a pen and start writing your Twitter bio. How will you use your 160 characters to express the entirety of yourself to the world? You can always go in and change it - for example, if you win the Nobel Prize two years from now go ahead and add that to your bio - you've earned it.

BAZINGA! Your Twitter bio is now complete. You have an account, an image with your account and a bio. The next step is to lay low for a little bit and check out Twitter. Tomorrow you'll learn the art of "lurking".

#### Today's Resources:

- [Article - 25 Twitter Bio Tips for Teachers by Terry Heick](#)
- [Article - Are You Really A Ninja? How to Rock Your Twitter Bio As Hard As Hillary Clinton by Amber Mac, Fast Company](#)
- [Article - How to Write A Useful Twitter Bio by Danielle Celmer](#)
- [Article - The Key 7 Ingredients of a Powerful Twitter Bio by Neil Patel](#)
- [Article - Twitter Bios and What They Really Mean by Teddy Wayne, New York Times](#)

## Day 8 – Twitter for Teachers Website Project



### DAY 8

### Being A Twitter Lurker

Today we're going to talk about "lurking" on Twitter - the art of observing without participating. There are some real benefits in looking around without jumping into the middle of every conversation.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- Definition - What is the definition of "lurking"? by Techopedia
- Article - The Case for Lurking by Brian Barrett
- Blog Post - Being a Lurker: Voyeurism at it's Finest by Todd Bloch
- Blog Post - From Lurking to Engaging by Bill Selak
- Blog Post - Opening the Curtain on Lurking by Stephanie Bader

#### Today's Task:

In the resources above you have already read several blog posts from teachers as they describe their own experiences with the value of lurking on Twitter. For your task today please watch this video that is under 5 minutes long.

#### Video - Lurking on Twitter for Teachers by Pete Walton



Congrats! You have earned your lurking badge for Day 8. Next we'll discuss how to find the people to follow on Twitter that will strengthen your professional network.

## Day 9 – Twitter for Teachers Website Project



### DAY 9

### Who Should I Follow?

Now that you have a Twitter account the next big question is "How do I decide who to follow?" Twitter will give you some suggestions but they are all celebrities who will never answer a tweet from you or help you with your next amazing lesson plan. Today we'll discuss how to find those people that will make up your "Personal Learning Network".

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Today you have two tasks, I know I'm very demanding. First, go out and find 15 new followers. Use the suggestions above to discover some people on Twitter in your content area, people that teach in your school or maybe just seem really smart. Next, watch **this short (under 4 minute) video from Alec Couros** as he discusses finding those experts who will make your network stronger.



Congratulations, you are well on your way to building a network of people who will help make you a better educator. Today you added at least 15 people but that number will grow in the coming days as you explore Twitter in different ways.

#### Today's Resources:



- [Article - 16 Educators New Teachers Should Follow on Twitter by Laura Devaney, eSchool News](#)
- [Twitter List - A "Must Follow" List for Teachers by George Couros](#)
- [Article - Twitter Advice for Teachers: What If A Student Follows You? by Mike Faria](#)
- [Article - How Do I Get a PLN? by Tom Whitby, Edutopia](#)
- [Article - 3 Steps to Building A Professional Learning Network by Brianna Crowley](#)



## Day 10 – Twitter for Teachers Website Project

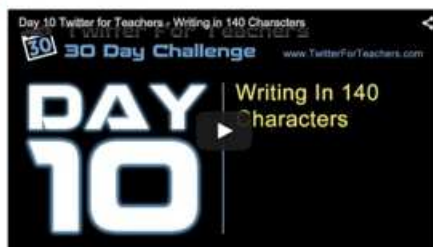


### DAY 10

### Writing in 140 Characters

As every Twitter user knows, you only have 140 characters to express yourself in a single tweet. It sounds impossible at first but there are some tips and tricks you can use to squeeze the most out of your space.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Blog - Twitter Tips: Writing Your Best in 140 Characters or Fewer by Allison VanNest](#)
- [Website - Letter Count - allows you to calculate how many characters in a text](#)
- [Article - How to Tweet Like A Pro in 140 Characters by Lance Ulanoff, PC Mag](#)
- [Article - What Twitter Teaches Us About Writing Short and Well by Mallary Jean Tenore](#)
- [Article - Twitter Only Gives Me 140 Characters? What the Heck? by Writing Spaces](#)

#### Today's Task:

There is something intimidating about knowing that you only have 140 characters to tell your story in one tweet and yet sometimes you beat the odds and have the perfect tweet - everything you wanted to say and zero characters left to spare! Today's task is to write just that kind of tweet. Write a tweet today as practice that uses exactly 140 characters, none left to spare. You can use the Letter Count website link above to practice writing with a 140 character limit.

Congratulations on your 140 character masterpiece! Tomorrow is the big day - you start formally tweeting in the wild!

## Day 11 – Twitter for Teachers Website Project



### DAY 11

### Get Out and Tweet

Everyone has to start somewhere and today is officially your Twitter birthday. Go ahead and post your first tweet. It doesn't have to be something epic, just check out the resources below to see the first tweets of famous world leaders. If you already have a Twitter account use the resource below to check out what you tweeted with your first 140 characters.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

If you have not yet Tweeted go ahead and make your first tweet today. This will become your official Twitter birthday (celebrating with cake optional but hey, treat yourself - it's a big day). If already have a Twitter account but don't remember your first tweet or your Twitter birthday go ahead and check it out with the resources above.

Congratulations! You have now joined the nearly 500 million people who have an account, only about half of which are active. Will you stay active? I hope so and over the next several days we'll give you the tools to use Twitter.

#### Today's Resources:



- [Article - The Queen of England Sends Her First Tweet - BBC News](#)
- [Article - As Twitter Turns 8, Here's How To Find Your First Tweet - USA Today](#)
- [Article - 23 Awkward Types of First Tweets - Christine Erickson, Mashable](#)
- [Article - First Tweets of Famous World Leaders - HDTV](#)
- [Website - Who Tweeted if First on Twitter - Digital Inspiration](#)

## Day 12 – Twitter for Teachers Website Project

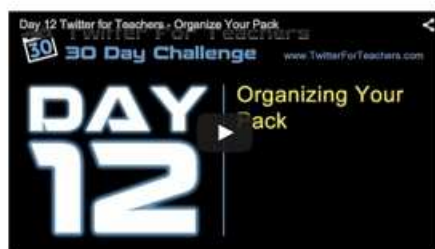


### DAY 12

### Organize Your Pack

On day 9 we discussed how to find people to follow. Today I would like you to focus on finding some people to follow that you already know - your friends and family. One of the biggest reasons new users to Twitter give up on Twitter because they don't see a personal connection with the people they follow. Help counteract this by recruiting some of your friends in the real world to also join Twitter with you. It will be easier to see the potential benefits of Twitter if you have a group of friends experiencing with you and will be there to chat with you about it.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Article - Local Tweets: 9 Ways To Find Twitter Users in Your Town by Josh Catone, Mashable](#)
- [Article - How to Build Community on Twitter by Sarah Evans, Mashable](#)
- [Article - 27 Twitter Tools to Help You Find and Manage Followers by 1st WebDesigner](#)
- [Website - Finding People on Twitter from Twitter](#)
- [Article - How to Find People on Twitter \(Top 10 Ways\) by Hannah Morgan](#)

#### Today's Task:

For today's task you're going to have to recruit. Convince three of your friends who are not on Twitter to join with you. You can help them set up their account and be their mentor if they're not sure. It will be easier to experience networks on Twitter if you also have a network in the real world.

Congratulations on recruiting some friends to join you on the journey. Next we tackle replying to people on Twitter and now since you have at least three friends you can send tweets to them!

## Day 13 – Twitter for Teachers Website Project



### DAY 13

### @ Using Reply on Twitter

Adding the @ symbol along with a Twitter user name directs your message to that specific user. Others can see it as well but it is method to attract someone's attention on Twitter. Adding a reply to your tweet will help get it noticed by not only the user you included on the reply, but others as well. It is different than a direct message, the topic for tomorrow.

#### Today's Resources:

#### Daily Video Introduction:



- [Website - What Are Replies and Mentions - Twitter Help](#)
- [Blog - Twitter 101: The Difference Between Retweet and a Reply - by Emily Warn](#)
- [Website - How to Use the Twitter @ Reply Sign - by Leslie Walker, About Tech](#)
- [Website - Retweet vs Reply - Diffen](#)

#### Today's Task:

Today your task is to send out five tweets which include a reply. Some of these replies can be users that you know and follow on Twitter, others can just famous individuals or name brands. If you have a question about a project try stating the question, adding the Twitter user name of the company and see if they respond.

## Day 14 – Twitter for Teachers Website Project



### DAY 14 Direct Messages on Twitter

You will find yourself wanting to send a tweet on occasion but instead of the entire Twittersphere reading it you would like just one person to see it. Sending a tweet specifically to just one person is called a Direct Message and it works a little differently than a normal reply - sort of like sending an e-mail via Twitter. Let's check it what is commonly known in the Twitter world as a DM.

#### Today's Resources:

#### Daily Video Introduction:



#### Today's Task:

Now it's time to try it out. Send two of your friends a direct message on Twitter. It could be a question about how their day is going or asking about what they plan to do this weekend. Ask them to also send you a direct message back. This is will allow you to see how direct messages are sent, and received, differently in your Twitter feed.

Kudos on unlocking the "direct messaging" badge! Tomorrow we'll tackle the art of retweeting, one of the most popular actions on Twitter.



- Video - Direct Messages by Jeffery King
- Video - How to Direct Message in Twitter by Andrew Knowles
- Article - Twitter Now Lets Any Follower Send You Direct Messages If You Want - by Jamie Condliffe
- Website - A Twitter DM or Direct Message Is A Private Communication; Learn How it Works by Leslie Walker
- Website - About Direct Messages by Twitter Help Support
- Article - Twitter Rolls Out Private Group Conversations, Native Video Tools by Cade Metz, Wired
- Video - How to Send A Direct Message by Howcast

## Day 15 – Twitter for Teachers Website Project



### DAY 15 The Art of Retweeting

Passing along a bit of wisdom you see in a tweet is one of the fundamental joys of tweeting. Forwarding on a tweet that you want your followers to see as well is known as "retweeting". It is fast and easy but it can also raise questions about why you are retweeting it in the first place - is it an endorsement? Do you agree with the intent of the tweet that you are passing along? Check out today's resources to learn more about the how and why of retweeting.

#### Today's Resources:

#### Daily Video Introduction:



- Video - Retweeting by Jeffrey King
- Website - Retweeting Another Person's Tweet by Twitter Help and Support
- Article - Retweeting Etiquette: Retweeting the Right Way by Vanessa Doctor
- Article - The Ethics of Retweeting and Whether It Amounts to An Endorsement by Anne Johnson, NPR
- Article - How to Retweet by Ben Parr, Mashable
- Article - 20 High Schoolers Suspended for Retweeting Gossip by Rebecca Klein

#### Today's Task:

Cruise around Twitter today - either in your own feed or by doing a search - and find three tweets that retweet as is and then retweet three tweets that you edit (modify) before sending.

Congrats on your retweeting accomplishment. Next we look at a close friend of retweeting, favoriting your tweets. You will earn your star tomorrow!

## Day 16 – Twitter for Teachers Website Project



### DAY 16 Favoriting Your Tweets

You will come across tweets that maybe you don't want to retweet but you just want to save for later. You might be in line at the grocery store checking Twitter when you see a link to an article you really want to read but then you're up next in line. You can favorite the tweet which allows you to save it so later you can come back and view that very tweet before it gets lost in the stream of other tweets.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- Website - Favoriting a Tweet by Twitter
- Article - 5 Reasons Why People Favorite a Tweet by Ruxandra Mindruta
- Blog - The 25 Distinct Reasons People "Favorite" Things on Twitter by Will Oremus
- Article - Collecting, Sorting and Archiving Tweets by Shawn Miller
- Article - What Does A Twitter Favorite Mean to You by Rob Zaleski

#### Today's Task:

Bounce around Twitter today and find five tweets that you want to favorite for later. If you want to also retweet those same tweets no problem, you favorite and retweet the same tweet.

You earned your stars today! Great job favoriting tweets. We will discuss later in the program how to save those favorited tweets to a social bookmarking tool or a Google Doc. Next up we'll talk about how to follow conversations on Twitter.

## Day 17 – Twitter for Teachers Website Project



### DAY 17 Following Conversations

One of the biggest complaints from people new to Twitter is that the volume of tweets makes it hard to follow. People in tweets are replying to other people but without knowing what questions the tweet is referring to it is basically worthless to anyone else following. There is an art to following conversations and some tips that make it easier to glean information from a discussion occurring on Twitter.

#### Today's Resources:

#### Daily Video Introduction:



- Video - Twitter Conversations
- Article - The 6 Types of Conversations On Twitter by Andrea Peterson, Washington Post

#### Today's Task:

Strike up a Twitter conversation with one of your friends today. Bounce at least five tweets back and forth to each other on any topic using the reply feature. Then look at your Twitter stream to see how the conversation can be viewed by clicking on the "bubble" icon. Next go out your Twitter stream and find a tweet that contains a similar "bubble" icon and click on it to reveal the other tweets in the conversation.

You have mastered conversations on Twitter, congratulations! Now let's add some visuals to our tweets. Tomorrow we will discuss how to add images your tweets to make the Twitterverse a more beautiful world.

## Day 18 – Twitter for Teachers Website Project



### DAY 18 Adding Images to Tweets

At first glance Twitter seems to be a lot of short text messages but the addition of images to tweets is becoming more and more common. Images can help tell a story well beyond the 140 characters you have to work with in a tweet. We will explore how you can add images to your Tweets and how they can make your tweet more impactful.

#### Today's Resources:



- Website - Posting Images on Twitter by Twitter Help Center
- Article - The Complete Guide to Tweeting images on Twitter by Mitt Ray
- Blog - Photos Just Got More Social by Cesar Puerta
- Blog - What Fuel's A Tweet's Engagement by Simon Rogers
- Video - How to Upload Pictures and Video to Twitter by Allison Kopp



#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Post two tweets today that include images as your task for today. They can be pictures of anything. If you want to add some variety try to adding an image to a tweet with your cell phone in one of them and then uploading a picture from a camera in the other one. Check it out and see which one is easier, or faster.

## Day 19 – Twitter for Teachers Website Project



### DAY 19 Sharing A Link

One of the most popular things to share on Twitter are links to great resources. There are some items to consider as you share your links in a Tweet so that you don't take up all of your 140 characters and you make sure others don't worry about your link being spam.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:



- Video - Sharing Links on Twitter by Jeffery King
- Website - About Twitter's Link Service by Twitter Help
- Article - Understanding Twitter: How to Short URLs by Garrett Moon

#### Today's Task:

The task today is to share three links in three different tweets. Notice how the URL is changed as you add the link to your tweet and how it impacts the total number of characters.

## Day 20 – Twitter for Teachers Website Project



### DAY 20 Creating A Twitter List

Keeping track of the people you follow on Twitter can get confusing, especially as you add more people. Creating a list in Twitter is a good way to organize your followers. A list can be a group of people you follow with a common interest. It is also a great way to share a group of people on Twitter with another user.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Once checking out the resources on Twitter Lists it is now your turn. Today make at least one Twitter List for your account. It could be a group of like minded educators - a list of American History teachers for example - or a list of people on Twitter that teach in your school district. Make at least one list and see if this is a tool that you could use in the future.

#### Today's Resources:



- Video - How to Use Twitter Lists by Cardiff Jomec
- Website - Using Twitter Lists by Twitter Help
- Website - Create and Use Twitter Lists by Twitter
- Website - How to Create a Twitter List by How To
- Article - How to Get Started With Twitter Lists by Amy-Mae Elliot, Mashable

## Day 21 – Twitter for Teachers Website Project



### DAY 21 # Educational Hashtags

One of the most common questions teachers ask me about using Twitter is "How do you find the information you want to find amid all those tweets?" Twitter is a huge place, creating half a billion tweets each day. The key to finding what will help you is understanding hashtags. A hashtag is any term with a # sign in front of it. Tweets about the World Series might include the hashtag #WorldSeries. These hashtags make it possible to tag and filter the information you need. There are a variety of hashtags related to education.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Today's task is finding three educational hashtags that will help you. Use the resources provided above to find three educational hashtags. Search Twitter with those three hashtags to see what resources appear under each.

Tomorrow we will discuss creating your own hashtag - which can be helpful for your school or for a class activity.

#### Today's Resources:



- [Website - Using Hashtags on Twitter - Twitter Help](#)
- [Article - The Twitter Hashtag: What It Is and How Do You Use It? by Elizabeth Kriefalusi](#)
- [Website - Listing of Educational Hashtags by Jerry Blumengarten](#)
- [Website - The Complete Guide to Educational Twitter Hashtags by Jeff Dunn](#)
- [Video - All About Hashtags by Susan M. Bearden](#)

## Day 22 – Twitter for Teachers Website Project



### DAY 22 Creating Your Own Hashtag

Yesterday we looked at existing educational hashtags and how you can use them to narrow down your search for tweets that you will find helpful. You also have the ability to create your own hashtags. There are some things to consider and the resources for today bring up some great tips. Jump in and think of your own educational hashtag.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Blog - How to Pick A Good Hashtag by Tint Up](#)
- [Article - Nine Simple Tips for Creating Twitter Hashtags by David Moth](#)
- [Article - Creating Hashtags and Making Them Useful on Twitter by Leslie Walker](#)
- [Article - Hashtags 101: How to Create Your Own by Lauren Dugan](#)

#### Today's Task:

Let's go ahead and create your own hashtag. If your building doesn't have a hashtag go ahead and think about what you can create as your own building wide hashtag. Maybe you want to create a hashtag for your classroom or a specific activity in your class so that students can tweet about it and add the hashtag. Remembering the things discussed in the resources for today create at least one hashtag and then use it in a tweet.

## Day 23 – Twitter for Teachers Website Project



### DAY 23 What is EdChat?

The past couple of days we have been discussing hashtags. Today we will be exploring a specific use of the hashtag for educators - edchat. Anyone can add hashtags to tweets at any time throughout the day but there are also specific times at which certain hashtags have predetermined topics and a live conversation can take place on Twitter among anyone using a specific hashtag.

#### Today's Resources:

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR



- [Blog - A Brief History of EdChat - Steven Anderson](#)
- [Wiki - EdChat Homepage](#)
- [Webpage - Cybrary Man's EdChat Page](#)




#### Today's Task:

Today's task is to watch the following video demonstrating how to participate in an edchat. The video is 9 minutes long and does a good job of describing how an individual can both follow and actively participate in an edchat.




Congratulations on completing Day 23 of the challenge. Tomorrow we will look specifically for educational hashtags and edchats which match your content area and/or grade level.

## Day 24 – Twitter for Teachers Website Project



**30 Day Twitter Challenge for Teachers**  
[www.TwitterForTeachers.com](http://www.TwitterForTeachers.com)

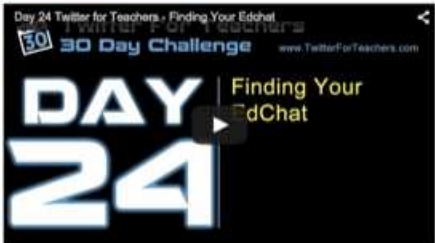
Eric Langhorst | @elanghorst
 

**DAY 24**

**Finding Your EdChat**

Now that you have seen an edchat in action now it is time to find the specific edchats that fit your needs as a teacher. There are currently hundreds, if not thousands, of edchats covering a wide variety of content areas, topics and grade levels. Today we want you to find those edchats that match your needs.

**Daily Video Introduction:**



**Today's Resources:**

- [Website - List of Scheduled Edchats](#)
- [Article - 13 Great Twitter Chats Every Teacher Should Check Out - Susan Bearden, The Journal](#)
- [Article - 15 Education Chats Worth Your Time - Andra Brichacek](#)
- [Article - Teachers Teaching Teachers, on Twitter: Q. and A. on 'Edchats' - Katherine Schulten, New York Times](#)
- [Website - List of EdChats](#)

**Today's Task:**

The task for you today is to find an edchat from the schedule that you feel really meets your needs as an educator. Add the scheduled time for the edchat to your calendar and then follow the discussion at that edchat this week. You don't necessary need to participate in the edchat, it is totally OK to lurk at your first one, but if you want to jump in with a question or an answer please feel free.

Recent Site Activity | Report Abuse | Print Page | Remove Access | Powered by [Google Sites](#)

## Day 25 – Twitter for Teachers Website Project



### DAY 25 TweetDeck

When following an edchat on Twitter it often beneficial to be able to set up specific columns to display different hashtags. Third party applications allow you provide additional functionality to Twitter and make it easier to manage your edchat experience. One of the most commonly used applications for participating in edchat is TweetDeck. It is free and may provide you with some of the features you want in organizing all your tweets.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

One of the best ways to really grasp the features of TweetDeck is to set up an account and play with it for a little while using your Twitter account. For today's task I would like you to set up a TweetDeck account and use for the next week. Yesterday we asked you to find an edchat that matches your content. Use TweetDeck this week to follow one of the edchats you found.

#### Today's Resources:



- Video - Using TweetDeck by Ashley Hurley
- Application - TweetDeck
- The Beginner's Guide to TweetDeck by Marissa Cetin, Mashable
- Website - 10 Tips To Help You Use TweetDeck More Effectively - Saikat Basu, MakeUseOf

## Day 26 – Twitter for Teachers Website Project



### DAY 26 Recording an EdChat

Sometimes you want to record all the tweets that happen in a particular time frame. An edchat is a great example. The moderators typically create a capture of the entire chat so that it can be posted later as an archived item. You may also want to someday capture a project your class participates in on Twitter using a specific hashtag over the course of a day. There are tools available to make it easy for you to capture a collection of tweets.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Today's task is to use Storify to capture a group of tweets. Select any hashtag - perhaps your district or building hashtag - and create a Storify to give it a test run.

#### Today's Resources:



- [Resource - Storify](#)
- [Article - How to Use Storify to Save Chats - Mr. Kirsch](#)
- [Article - How to Capture Twitter Conversations - Laurel Storm, Demand Media](#)
- [Article - Save Time While Archiving Twitter Conversations - Jos Mazza](#)
- [Article - How to Capture Twitter Conversations by Lauren Miller, eHow](#)

## Day 27 – Twitter for Teachers Website Project



### DAY 27 School Twitter Accounts

Many schools are now using Twitter as a powerful tool to communicate with parents. School Twitter accounts can include links to items on the school webpage and upcoming events at school. A school can also use Twitter to spread the word about the great things happening in their building with examples of student activities and photos of students doing great things in class.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Blog - 4 Ways to Use Twitter to Increase Engagement by Steve Williams](#)
- [Article - 12 Reasons to Get Your School Using Twitter This Summer by Joe Mazza, Edutopia](#)
- [Article - How to Start Using Twitter For Your School by Brendan Schneider](#)
- [Blog - Tweeting for Schools by George Couros](#)
- [Article - For Public Schools, Twitter Is No Longer Optional by Dorie Clark, Forbes](#)

#### Today's Task:

Check to see if you have a school Twitter account. You may already have one but it could be inactive or under utilized. Ask your principal if you are not sure. If your school has a Twitter account your task today is to look through the tweets and examine how your school is currently using the tool. If your school doesn't have a Twitter account consider creating one for your school building. Have a discussion with your principal about the potential of creating one.

## Day 28 – Twitter for Teachers Website Project



### DAY 28 Twitter on Your Phone

Twitter is available on a variety of formats, including your cell phone. Many Twitter users will check Twitter on their phone while waiting in line at the grocery store or sitting in a waiting room at the doctor's office. Depending on which app you select to view Twitter, cell phone versions of Twitter often many of the features available on your laptop or tablet - some even offering more functionality.

#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Resources:

- [Website - Getting Started With Twitter on Your Phone by Twitter Help](#)
- [Article - How to Use Twitter From Your Cellphone by Andrew Tennyson, eHow](#)
- [App - Tweetcaster](#)

#### Today's Task:

Today's task is to load a Twitter app on your cellphone - this could be an app like TweetCaster or the standard Twitter app for phones. Try the app out for the next several days and see if having Twitter available in this format is a blessing or a curse. Some may find the ability to check Twitter at any time of the day to addicting. Tomorrow we will discuss sharing your favorited tweets with others.

## Day 29 – Twitter for Teachers Website Project



### DAY 29 Saving & Sharing Your Tweets

If you are hosting an edchat on Twitter you might want to save a transcript of your chat so that you can provide a copy in the archives for people who are interested in the topic but were not able to participate live. You could also capture a specific set of tweets from a Twitter activity in your own classroom. The most popular program used today to capture tweets is Storify.

#### Today's Resources:



#### Daily Video Introduction:



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

#### Today's Task:

Today's task is to use Storify to record/save a particular hashtag for certain amount of time. For example, if your school uses a hashtag create a Storify for the past week saving each tweet with your school's hashtag.

Congrats on creating a Storify transcript of a hashtag. We are almost to the end of our journey. Tomorrow we will discuss sharing a Twitter hashtag with a large group at a conference, meeting or workshop.

## Day 30 – Twitter for Teachers Website Project



### DAY 30 Sharing Twitter with a Group

You are almost finished with the program. Hopefully you have now seen the value in using Twitter in education and maybe you want to share this new tool with other teachers. You have have attended a conference or a workshop that has a large screen which projects a continually changing display of tweets using a specific hashtag. It is a great way to promote the hashtag for an event.

It is pretty easy to set up one of these displays and there are a variety of programs available to help you display multiple tweets.

#### Today's Resources:

#### Daily Video Introduction:



#### Today's Task:

Today's task is to take both TweetBeam and TwitterFall for a spin. Open each one and try it out with a couple of hashtags the you currently use. If your principal told you that they would like to use one in a faculty meeting to display tweets using your school hashtag at the meeting, which one would you recommend?

- [Article - Free and Open Source Twitter Wall Alternatives by Dag Hendrik Lerdal](#)
- [Video - TweetBeam](#)
- [Application - Twitterfall](#)
- [Video - How to Use Twitterfall by Hamish Lindop](#)

What two factors made you choose the one you did?

1.

2.

You did it! You have completed the 30-Day Twitter Challenge for Teachers! Click on the Graduation link to celebrate!

## Learn More About – Twitter for Teachers Website Project



The Twitter for Teachers program was created by Eric Langhorst in 2015. While conducting research for his doctorate in Teacher Leadership from Walden University, Eric conducted research on how social studies teachers collaborate using Twitter, primarily edchats.

Eric's research was consistent with existing research on the power of strong connections among teachers using Twitter and the benefits of collaborating with peers on content specific topics. An overwhelming percentage of teachers using Twitter responded that they consider themselves very tech literate and it is easy for them to learn how to use new technologies. They also responded that they did not receive any formal type of training on how to use Twitter but rather just picked it up by a little observation and jumping in.

The project Eric selected to create as a result of his doctoral work was a professional development program that could help teachers learn the basics of using Twitter in a sequential format but on their own time. Anyone can participate in this program at any time with no cost. It is Eric's hope that these resources help both the individual teacher who may visit the site as well as potentially be used by a department or school to help an entire group of teachers become more comfortable with Twitter.

If you have any questions please contact Eric at [speakingofhistory@gmail.com](mailto:speakingofhistory@gmail.com)

Thanks.

- [YouTube Playlist of all Intro Videos](#)

### Technical Aspects

- The website was created using [Google Sites](#).
- The graphics were created on [Adobe Fireworks](#).
- The introduction videos were recorded on a [MacBook Air](#) using [ScreenCast-O-Matic](#) and edited with iMovie.
- Sound was captured using a [Blue Yeti Microphone](#) connected to the MacBook Air via USB.
- The site was completed in March 2015 with edits and improvements to portions of the site as needed.



Picture of work station for recording the intro videos.

## Reflective Journal – Twitter for Teachers Website Project



### Reflection Journal

#### Video Describing the Reflection Journal



CLOSED CAPTIONING AVAILABLE WITH THIS VIDEO  
PLEASE CLICK "CC" ON BOTTOM OF VIDEO MENU BAR

A Google Doc template journal has been created for use as a reflection tool throughout the 30 day process. Please feel free to use the provided link to access the document. You may then make a copy and edit your own version of the template.

#### [Twitter for Teachers Challenge Reflection Journal \(Google Document\)](#)



Welcome to the Twitter for Teachers reflective journal. Please feel free to make a copy of this Google Doc and use it to record your progress during the process.  
(note: the title of each day is also a link to the webpage for materials for that day)

#### Day 1 - What is Twitter?

Today's Task: Today's task is to watch a [seven minute video from CBS Morning](#) entitled "Inside the World of Twitter".

Reflection for the day:

## Contact Eric – Twitter for Teachers Website Project

---

 **30 Day Twitter Challenge for Teachers**  
[www.TwitterForTeachers.com](http://www.TwitterForTeachers.com)   Eric Langhorst | @elanghorst 

---

Eric Langhorst

[@elanghorst](#) | [Twitter](#)

[speakingofhistory@gmail.com](mailto:speakingofhistory@gmail.com) | E-Mail

[Eric Langhorst Resume](#)

Eric teaches 8th grade U.S. History, Technology and Student Broadcasting  
at [Discovery Middle School](#) in the [Liberty Public School District](#) -  
[Liberty, Missouri](#).

---

[Recent Site Activity](#) | [Report Abuse](#) | [Print Page](#) | [Remove Access](#) | Powered By: [Google Sites](#)

## Appendix B: Invitation E-Mail to Participate in Interview

Hello. My name is Eric Langhorst. I am a doctoral candidate at Walden University currently completing research on my dissertation. The topic of my dissertation is “Social Studies Teachers’ Use of Twitter and #EdChats to Collaborate”. My research on this topic has included analyzing transcripts from various #sschat sessions. These transcripts show that you are a frequent participant and significant contributor to #sschat sessions. As a valued member of this network I would like to ask if you are willing to participate in an interview to help in my research on this topic.

I am currently a classroom teacher - 8th grade American history at Discovery Middle School in Liberty, Missouri - and value your time and busy schedule. If you are willing to participate in my study the interview would be no longer than one hour and be scheduled at your convenience. The interview will consist of questions pertaining to your use of Twitter, specifically #sschat, to collaborate and share ideas with peers. The interview could be conducted via Skype, Google Hangout or a phone call depending upon which format you prefer.

Please let me know if you have any interest in participating in my research study and I will provide additional information on specifics and a letter of consent that you can review prior to any participation. I believe this study has the potential to raise awareness of the potential of using social media to collaborate with peers and I would greatly appreciate your perspective for this research.

I am also willing to answer any additional questions you may have about participation in this study.

Thank you.

Eric Langhorst

### Appendix C: Letter of Informed Consent

You are invited to take part in a research study examining how social studies teachers use the social networking tool Twitter to collaborate with fellow teachers, especially regularly scheduled #sschats.

The researcher is inviting Twitter users who participate in #sschats on a regular basis to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

I am, Eric Langhorst, and am conducting this study as a doctoral student at Walden University. I teach 8<sup>th</sup> grade U.S. history, student broadcasting and technology at Discovery Middle School in Liberty, Missouri.

#### **Background Information:**

The purpose of this study is to explore the manner in which social studies teachers use Twitter to collaborate and how it is currently being used as a form of professional development. Study results will be used to create an information paper and a guide to help introduce social studies teachers to Twitter as a form of collaboration. This information may be used to help publicize the potential benefits of social media as a collaboration tool for teachers.

#### **Procedures:**

If you agree to be in this study, you will be asked to:

Participate in an interview with the researcher, expected to be no longer than 60 minutes, via the application which best meets your needs – telephone or video chat (Google Hangout or Skype). This interview will be schedule at your convenience. The interview will be recorded in digital audio format by the researcher and transcribed to text at a later date.

Review the transcript of the interview and provide any clarification or corrections to the researcher.

Review the information contained in the completed study prior to submission to Walden University and, if necessary, provide clarifying input. A copy of the study and a letter of concurrence will be mailed to your residence, along with a confidential return envelope for you to return the letter or provide additional confidential input.

Here are some sample survey questions:

How long have you been participating in the social studies chat on Twitter?

Do you typically follow social studies chat live or view later using the online archive?

Do you remember how you first learned about the norms of participating in ed chats - how to ask and reply to questions, how to effectively use hashtags, etc.?

Do you consider yourself more of an active participant in social studies chat or a passive participant?

Do you follow the #sschat hashtag at times other than the regularly scheduled social studies chat?

What is the motivation for you to participate in social studies chat on a regular basis?

Do you have any stories or examples of how you learning something as a result of social studies chat which had a positive impact in your classroom?

### **Voluntary Nature of the Study:**

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time.

### **Risks and Benefits of Being in the Study:**

Being in this type of study involves little risk and only the minor discomforts that can be encountered in daily life, such as the extra work of scheduling and participating in the interview. Being in this study would not pose risk to your safety or well-being.

This study may be of benefit by improving technology integration practices as a form of professional development and collaboration. Data from the research will provide you with intimate knowledge on social media as a collaboration tool since you will be a part of the study and its findings. You may benefit from the identification of best practices, lessons learned, obstacles, pitfalls, and recommendations for future implementation.

### **Payment:**

There will be no payments or reimbursements for your participation in this study.

### **Privacy:**

Any interview transcripts or written follow-up information you provide will be kept confidential by the researcher. The researcher will keep any information you provide confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. In the study your name and the Twitter user name will be replaced by pseudonyms to keep your identity confidential.

All electronic data will be secured on the researcher's password-protected computer and external backup hard drive. All written data and audio recordings will be stored in a locked filing cabinet. Data will be kept for a period of at least 5 years, as required by the University.

### **Contacts and Questions:**

If you have any questions about the study you can contact me directly at:  
[eric.langhorst@waldenu.edu](mailto:eric.langhorst@waldenu.edu)

You may contact Dr. Leilani Endicott with any questions about your rights and participation in this study: [irb@waldenu.edu](mailto:irb@waldenu.edu). Walden University's approval number for this study is **08-29-14-0161759** and it expires on **August 28, 2015**.

You are free to also keep a copy of this informed consent form for your records.

### **Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By responding via e-mail according the instructions included below, I understand that I am agreeing to the terms described above.

Please confirm consent to participate in this research study by including the text "I consent" in an email sent to: [eric.langhorst@waldenu.edu](mailto:eric.langhorst@waldenu.edu)



2014.08.2  
9 17:35:09  
-05'00'

## Appendix D: Interview Protocol

Participating Educator: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_

**Introduction**

Hello. My name is Eric Langhorst and I will be conducting this interview with you today pertaining to your use of Twitter as a collaborative teaching tool with a specific focus on your participation in the weekly social studies chats. Thank you so much for your willingness to take time to discuss and share your experiences. I will be recording this interview and taking notes to ensure the accuracy of your information.

I'm curious to know more about how you use Twitter as a tool to collaborate with other social studies teachers. I will be asking a variety of questions, some of which are simple one word type answers and others in which you should feel free to elaborate on your experiences and opinions. Please feel free to be as detailed with your answers as you wish to fully share your story. Please let me know if you need a break at any time. The interview is scheduled to take no longer than an hour.

Do you have any questions before we begin?

**A. Introductory Questions**

1. Do you have any questions relating to the Letter of Informed Consent that you returned signed?
2. What is your current teaching position - content and grade level?
3. How many years have you taught in this position?
4. How many total years have you taught?
5. What is your age?
6. Which descriptor best fits your school building - urban, suburban, rural or online?

**B. Professional Development**

7. Does your school provide a regularly scheduled time each week for you to collaborate with other social studies teachers?

8. Compare the collaboration you experience in a #sschat on Twitter compared to the professional development you experience which is directly provided by your school district?

### **C. Technology Use**

9. Which of the following devices do you use on a regular basis:
  - Desktop computer:
  - Laptop computer:
  - Tablet (including iPad):
  - Cell Phone:
10. Please describe your ease with the technology in general, 10 being very comfortable and 1 being not comfortable at all.

### **D. Twitter and Social Media**

11. Do you have separate Twitter accounts for school and personal use?
12. If you have separate Twitter accounts for school and personal use, which account did you create first?
13. Please describe the frequency of your Twitter use :
  - Multiple times a day
  - Once daily
  - Multiple times weekly
  - Once monthly
14. Which percentage of your Twitter use over the past year could be estimate as “academic” in nature compared to personal use?

### **E. Social Studies Chat Participation**

15. How long have you been participating in the social studies chat on Twitter?
16. Do you remember the reason you started to participate in social studies Twitter chats?
17. Do other social studies teachers in your building regularly participate in social studies chat?

18. Do other social studies teachers in your school district regularly participate in social studies chat?
19. Do you typically follow social studies chat live or view later using the online archive?
20. Which device do you typically use to participate in social studies chat?
21. What Twitter application do you typically use to participate in social studies chat?
22. Do you remember how you first learned about the norms of participating in ed chats - how to ask and reply to questions, how to effectively use hashtags, etc.?
23. When you started to participate in #edchats did you find it easy to get started or was it difficult to learn the norms associated with participation?
24. Do you consider yourself more of an active participant in social studies chat or a passive participant?
25. Do you follow the #sschat hashtag at times other than the regularly scheduled social studies chat?
26. Do you feel a personal connection to the other teachers you communicate with in social studies chat?
27. What is the motivation for you to participate in social studies chat on a regular basis?
28. Do you have any stories or examples of how you learning something as a result of social studies chat which had a positive impact in your classroom?
29. Compare the quality of professional development you receive as a result of your participation in social studies chat to more traditional forms of professional development - workshops, speakers, conferences, etc.?
30. Do you have any general comments you would like to make on why you participate in ed chats?

## Appendix E: Project Formative Evaluation Survey



## 30 Day Twitter Challenge For Teachers Evaluation

Hello. Thank you for participating in the 30 Day Twitter Challenge for Teachers. I would like to hear about your perceptions and experiences using the program.

Please answer the following eight questions on your experiences. Your feedback will help me continue to offer the program and make modifications in the future.

Your feedback is anonymous.

Thanks for taking the time to evaluate our program. Your feedback is appreciated.

**\* Required**

**How many of the 30 days of the program did you view? \***

- ☐ none
- ☐ between 1 and 10
- ☐ between 11 and 20
- ☐ between 21 and 29
- ☐ all 30 days

**BEFORE** accessing the 30 Day Twitter Challenge for Teachers website, how would you rate your comfort in using Twitter? \*

1 2 3 4 5

not comfortable using Twitter at all ☐ ☐ ☐ ☐ ☐ very comfortable using Twitter

**AFTER** accessing the 30 Day Twitter Challenge website, how would you rate your comfort in using Twitter? \*

1 2 3 4 5

not comfortable using Twitter at all ☐ ☐ ☐ ☐ ☐ very comfortable using Twitter

**How helpful was the daily introduction video?** \*

1 2 3 4 5

Not helpful ☐ ☐ ☐ ☐ ☐ Very helpful

**How helpful were the daily resources (links to articles, additional videos, websites)?** \*

1 2 3 4 5

Not helpful ☐ ☐ ☐ ☐ ☐ Very helpful

**How helpful was the daily task?** \*

1 2 3 4 5

Not helpful ☐ ☐ ☐ ☐ ☐ Very helpful

**Would you recommend the 30 Day Twitter Challenge to a friend who wanted to learn how to use Twitter as a teacher?** \*

☐ Yes

☐ No

**Please add any additional comments or suggestions about the site.**

**Submit**

*Never submit passwords through Google Forms.*

## Appendix F: Promotion Flyer for Program Sent to Schools

Eric Langhorst

March 1, 2015

Hello. My name is Eric Langhorst and I currently teach U.S. History, technology and broadcasting at Discovery Middle School in Liberty, Missouri as well as graduate courses for Baker University.

In 2007 I joined Twitter after several colleagues convinced me to give it a try. Although somewhat skeptical at first, today I consider it to be the most powerful resource available to me in terms of connecting with teachers who teach the same content.

I recently completed my doctorate degree at Walden University and my dissertation topic was how social studies use Twitter to collaborate. The findings of my study showed an active and highly engaged community of teachers on Twitter, many of which credited Twitter with helping them stay in the profession and being their primary source of new ideas and best practices.

My findings also revealed that most teachers who currently use Twitter also consider themselves to be above average in terms of their comfort level with trying new technology. Most teachers new to Twitter jump in and learn how to use it without any formal instruction or professional development. This approach works for the teachers who already embrace technology but is difficult for those who don't consider themselves to be highly tech literate.

As a portion of my doctoral study, I created a website that helps teachers learn how to use Twitter professionally in easy to understand segments over the course of 30 days. The Twitter for Teachers website – [www.twitterforteachers.com](http://www.twitterforteachers.com) - features a new topic each day with a short introductory video, links to resources and suggestions for a small task to complete.

The program is completely free and available to anyone online. It is a self-paced and designed to help those brand new to Twitter as well as those teachers who may already be active on Twitter.

Please feel free to pass the website along to any teachers in your district who may want to learn more about using Twitter professionally. After creating this website as a requirement for my doctorate it is my hope that others will benefit from the resource.

I have included a flyer promoting the website if you would like to pass it along to anyone in your district. Thanks for your time and please let me know if you have any questions.

Eric Langhorst  
Discovery Middle School - Liberty, Missouri

## **Twitter for Teachers 30 DAY CHALLENGE**



Learn how teachers can use Twitter professionally to connect with fellow teachers, find experts in content areas and participate in weekly #edchats to enhance their instruction.

### **NEW USERS AND CURRENT USERS**

Created to help someone starting with the first steps of creating a Twitter account as well as someone currently active on Twitter who is looking to maximize the potential of tweeting.



**FREE TO ANYONE  
ONLINE 24/7**

Discover how teachers are building powerful learning networks on Twitter. Many claim it the most influential network they current have to improve their teaching.

This website was created by a teacher to help other teachers.

**[www.TwitterForTeachers.com](http://www.TwitterForTeachers.com)**

Created by Eric Langhorst, Liberty Public Schools - Liberty, Missouri

## Appendix G: NIH Certificate of Completion

5/5/2011

Protecting Human Subject Research P...

